ICLIM - 2021

4th International Conference on Library and Information Management

PROCEEDINGS

"Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations"

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCES

4th International Conference on Library and Information Management (ICLIM - 2021)

"Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations"

26th November 2021

PROCEEDINGS

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Department of Library and Information Science

Faculty of Social Sciences

University of Kelaniya

Sri Lanka

2021

4th International Conference on Library and Information Management
(ICLIM - 2021)

"Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations"

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Message from the Vice Chancellor

The mission of any university worthy of that name must include both the dissemination of knowledge (i.e., teaching) as well as the generation of new knowledge (i.e., research). As a leading national university in Sri Lanka, the University of Kelaniya seeks to conduct high-quality research in all academic disciplines offered by the University and to support all members of the University community in this endeavour. It is with great pleasure that I send this message for the 4th International Conference on Library and Information Management which is to be held under the theme "***Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations"***. The conference will highlight salient points in light of the current challenges facing our contemporary world, especially the multiple crises brought about by the COVID19 pandemic.

The ICLIM 2021 will provide a platform to share knowledge and experience, expertise and applications in Library and Information Management and to reflect on the use of technology in pre- and post-pandemic eras. Conferences such as ICLIM 2021 support our vision of becoming an excellent University that produces human capital with high-quality skills and competencies.

As the Vice-Chancellor of the hosting university, I warmly welcome our Guest of Honour Snr. Prof. Premakumara Silva, who is also the Chairman of SCOLIS, as well as our Keynote Speaker Prof. Anne Goulding, Professor in Library and Information Science, Victoria University of Wellington, New Zealand. I thank all those who have contributed directly and indirectly to the organization of this conference, and worked hard to make it happen despite all difficulties.

I wish all the participants in ICLIM 2021 every success - may you have a meaningful and fruitful conference!

Prof. Nilanthi De Silva
Vice-Chancellor

Message from the Dean, Faculty of Social Sciences

It is a great honor for me to issue a message at this memorable event organized by the Department of Library and Information Science, one of the prominent and proficient Departments, with a blend of academic and professional approaches. I appreciate the fact that the Department has taken four attempts towards organizing a virtual international forum that convenes foreign and local experts including the undergraduates in the field of Library and Information Science. I contemplate that the cooperation has been a timely and needed requirement, especially in a period like this and I am glad that the Department has organized this remarkable venture in collaboration with the Main Library, University of Kelaniya, and the Research Center for Social Sciences of our Faculty. The theme of the conference "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations" connotes a very meaningful and pragmatic message that the libraries have to change their direction towards achieving this goal. Further, it shows a very clear vision for all of us to re-think, re-adjust and reshape our work. The worldwide tragedy caused by the COVID-19 pandemic has disrupted society beyond anything we might have imagined only months ago. It has likewise had a whopping impact on libraries of all types. Libraries have implemented drastic measures to protect their workers and the public, while still fulfilling their missions to serve their communities with reliable information and collection access to the greatest extent possible.

I greatly appreciate the initiative taken by the Department of Library and Information Science for organizing this scholarly venture and it will undoubtedly boost the professional, academic, and research collaboration and the amicable relationships among the distinguished personalities, the upcoming professionals including our young blood, the undergraduates who are gathered here today. I take this opportunity to thank the chief guest, the guest of honor, keynote speaker, chairpersons, co-chairs, rapporteurs, organizers, committee members, editors, paper reviewers, presenters, and all the participants of this event.

I wish you every success for the event.

Prof. M.M. Gunatilake
Dean, Faculty of Social Sciences,

Message from Chairman, SCOLIS

It is my great pleasure to welcome all of you, the academic, professional, and research community who participated in this 4th International Conference on Library and Information Management (ICLIM 2021) conducted by the Department of Library and Information Science, Faculty of Social Sciences, University of Kelaniya, Sri Lanka being a humble yet pleasant conference.

Libraries and Information centres have a vital role and a responsibility to play in collecting, organizing, and the delivery of information and knowledge for the target users especially in a period which a country or the world faces a crisis.

Within this environment, the library and information professionals and their supporting staff will have to divert their thinking patterns, way of behaviour, attitudes, and skills suiting to the changing dimensions in the use of modern Information Communication and Technologies for their service organizations to support not only to reading communities in a university set up but also for the wide variety of other user groups outside to the university like the youth, community groups, planners, and policymakers at various levels.

What I stressed above is very clearly exposing and matching the philosophy of this symposium theme "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations" and it momentously contributes to the mission in the context of sustainable development initiatives of the country.

I am very certain that this occasion will be able to provide a platform for strengthening the relationships in the spirit of knowledge sharing while at the same situation in corona pandemic all over the world, necessary thrust in joint research collaborations and parallel initiatives. I desire that this conference will be a foundation for the growth of new ideas towards a better tomorrow.

With best wishes

Prof. Premakumara de Silva, Ph.D. (Edinburgh),
Senior Professor of Sociology (Chair) and Member of University Grants Commission,
Chairman (SCOLIS)
Senior Research Fellow, University of Birmingham, UK.

Message from the Chairman, Research Council, University of Kelaniya

It is with great privilege to send this message on behalf of the 4th International Conference on Library and Information Management (ICLIM 2021) conducted by the Department of Library and Information Science (DLISC) Faculty of Social Sciences, the University of Kelaniya in collaboration with the library (University of Kelaniya) and Research Centre for Social Science (RCSS). This is a landmark event in the history of both the Department of Library and Information Science and the Faculty of Social Sciences which demarcates the inspiration, ability, modernization, dialogue and discourse particularly the addressing key issues pertinent to the principal theme of this ICLIM 2021 "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations" It is the 4th consecutive conference which will be held on the virtual platform and, it build cordial relationships between and among the of teaching staff coupled with academic and research pursuits of students and the vivid support of the non-teaching staff of the Faculty of Social Sciences. Underneath the conference theme momentously tributes to the mission of the Department which encompasses its diverse academic and research activities. While commending the contribution made by senior academic and senior library professionals who are joined today, I am proud to announce that allocation of an undergraduate session in the conference lends a helping hand for our young research novices who gather in this forum to have a golden opportunity and to make use of their talent to serve the nation, by way of conducting more research as teams of researchers or individually. If these novices achieve language competencies like comprehension, creative and academic writing and use of grammar effectively, sound theoretical knowledge and empirical research and the application of research findings for policy issues and implications and so on, they will have an opportunity to turn out to be the internationally recognized researchers. . It is well apparent that the findings in most of the papers presented in ICLIM 2021 are more beneficial and applicable for economic, social and cultural wellbeing of the country amidst pandemic situation. Hope everyone will enjoy and learn a lot through this valued event and yield many benefits to make use of individual and collective interests. I wish a great success with the event.

Senior Prof. Kapila Seneviratne
Chairman, Research Council,

Message from the Director, Research Center for Social Sciences

It is with immense pleasure that I congratulate the Department of Library and Information Science (DLIS) of the Faculty of Social Sciences, University of Kelaniya, for organizing the 4th International Conference on Library and Information Management (ICLIM 2021) on the virtual platform and consider it as a privilege to write a few words to mark this significant event. At present University of Kelaniya is focusing its attention on working towards achieving optimum benefits from collaborative research activities, both within the University itself and with the outside world. In this context, I am so glad to see that the Conference is organized with the collaboration of the Main Library and the Research Center for Social Sciences which are vital institutes within the University of Kelaniya for coordinating interdisciplinary research activities pertaining to Social Sciences.

The DLIS strove towards attracting distinguish foreign and local scholars in the field of Library and Information Science, including the academics, students and LIS graduates to participate in this forum. As a result, the list of contributors as in presenters, evaluators and participants depicts the ICLIM 2021would indeed be an erudite platform to share new knowledge and prompt further research. Furthermore, the conference would be a great opportunity to initiate resource-sharing activities in the form of joint programs such as advanced training workshops, seminars, digital technology initiatives, curriculum development programs, and so on. Moreover, this could create a platform for interdisciplinary and multidisciplinary research, both at national and international levels. This year the principal theme of ICLIM 2021 is 'Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations' which I am sure is timely, pragmatic and socially relevant in the field of Library and Information Science in this Covid-19 Pandemic situation. Further, it will also pave the way for achieving the objectives embedded in the vision and the mission of the DLIS, which is one of the leading higher education establishments in Librarianship in Sri Lanka.

Thus, it is with great pleasure that I welcome the international and local experts in the field of Library and Information Science, the academic paper presenters, and all the participants who attend this conference. On behalf of the Research Centre for Social Sciences I wish them all a wonderful and academically beneficial experience. Furthermore, I thank the Department of Library and Information Science and the team of organizers for organizing a Conference of this

caliber during these difficult times. I sincerely hope that this would be an opportunity for the DLIS to have an experience and exposure which would strengthen their dedication to develop future perspectives of the DLIS.

Professor Dilma Thushari Koggalage
Director, Research Centre for Social Sciences,

Keynote Speache

It's all about the people. Organisational resilience in libraries.

In this keynote, I will consider some of concepts and ideas around organisational resilience and how they might be applied to libraries. The word resilience has become prominent in discussions of the COVID-19 pandemic. We have become familiar with the global resilience ranking[1], for example, that rates countries on how effectively they are handling the virus. On a more day-to-day basis, when we consider the word resilience, we think of the ability to cope with a crisis and recover effectively from difficulties caused by adverse events. Resilience is the ability to continue functioning despite severe and significant challenges. As Masten and Narayn (2012, p. 231) explain: "Resilience can be defined as the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability, or development".

Importantly, resilience is not necessarily a sign of sheer mental toughness. Rather it indicates the ability to work through adversity, reflect on our response to that adversity, adapt to new circumstances and come back stronger. Essentially, resilience is about change and our ability to adjust to challenging changes within our environment, move forward and perhaps even experience growth. Resilience is a positive outcome resulting from a negative experience.

We can think of reliance at both an individual and a group, system or organisational level. Although this conference focuses mostly on organisational resilience, it's worth considering individual resilience because organisations are made up of individuals. An organisation's people management or human resource practices can support employees' resilience both for their benefit and that of the whole organisation. We know that individuals react to change differently and so a person's resilience is dependent on a range of factors including their genetics, past experiences, and the environmental or situational context in which they find themselves. This model from Britt et al. (2016) is a good representation of people's reactions to adverse events and the factors impacting on how resilient they are in the face of those. In this model, the authors distinguish between the individual's capacity for resilience (the ability of the individual to adapt in the face of adversity) and their demonstration of resilience

(evidence that the individual has adapted positively). The model also lists the characteristics of the adverse event and the processes that are considered to influence the individual employee's capacity for resilience. The role of the employer here is to recognise that employees' capacity for resilience varies and to support their positive adaptation through initiatives such as mental health interventions and developing and encouraging healthy behaviours or a culture of wellness, ensuring a good work-life balance for example, and building positive social and professional connections and networks within the workplace. Good people management practices like these can help individuals and therefore organisations withstand crises and develop resilience. In fact, organisational resilience is developed through strategically managing human resources to develop competencies among staff that enable organisations to respond appropriately when faced with profound and unexpected shocks such as COVID-19.

So let's turn to organisational resilience. Literature on organisational resilience has a long history, going back to at least 1982 when Alan Meyer wrote his seminal paper on "Adapting to Environmental Jolts". He explains an environmental jolt as "a sudden and unprecedented event", that is difficult to predict and brings with it disruptive and potentially detrimental impacts. No doubt the last two years have given scholars of organisational resilience plenty of research material as they explore organisational responses to the environmental jolt of the COVID-19 pandemic. But, as noted, organisations are made up of individuals – employees – and organisational resilience depends on the capacity of those employees to cope, adapt and thrive when faced with challenges.

In Aotearoa New Zealand, there is a Māori proverb:

He aha te mea nui o te ao

He tangata, he tangata, he tangata

What is the most important thing in the world?

It is the people, it is the people, it is the people

This has resonances when we consider the area of organisational resilience because people are recognised as *the* key to organisational resilience although it is also emphasised they need to be supported by appropriate organisational practices and approaches that support and develop their resilience. This brings us to the other aspect of organisational resilience often stressed in the literature that resilience can be learnt. Although the model mentioned earlier from Britt et al. (2016) mentions genetics as a factor that can influence the capacity for resilience, most researchers believe it plays a minor role and that individuals and organisations can develop resilience, and that organisational resilience develops from employees' ability to learn from adversity and emerge stronger. But not all organisations seem capable of supporting the kind of learning that helps employees develop organisational resilience and there is evidence that organisations run more along Douglas MacGregor's (1960) theory Y lines are likely to be more

resilient. Generally, it is considered that formalized and complex, hierarchical and bureaucratic structures inhibit the learning necessary for organisational resilience. Conversely, learning is enhanced by structures that distribute decision making and encourage employee empowerment. Resilient organisations are generally found to have decentralised decision making, low levels of formalisation, and high levels of collaboration and cross-organisation working and information or knowledge sharing. The operational flexibility enabled through these approaches allows organisations to respond quickly and more effectively to the kind of disruption brought by COVID-19. In addition, staff management approaches that support and encourage employees to experiment with new approaches and take risks are also considered supportive of staff learning capability and therefore organisational resilience.

In the last part of this talk, I'll consider the extent to which have libraries demonstrated the characteristics of resilient organisations throughout the COVID-19 pandemic. Over the years, there has been quite a lot of research literature and professional accounts of how libraries contribute to community resilience in the aftermath of disasters and collective trauma. But there has been perhaps less focus on how libraries themselves adapt to environmental jolts. An interesting point made by Meyer (1982) in his original paper on environmental jolts is that that while abrupt changes or crises in the external environment are generally considered unwelcome and dangerous to organisational success and perhaps even continued existence, environmental jolts can offer opportunities for organisational learning and the introduction of beneficial and innovative change and that seems to have been the experience of many libraries around the globe as they have adjusted to the often difficult circumstances brought about by the pandemic.

Firstly, the pandemic intensified the digital migration of resources and services and while this may be viewed as an incremental, rather than dramatic change – a continuation of developments already under way – the methods and approaches used were often innovative. Special arrangements were made in many countries and by many libraries to continue and extend access to services and programmes, migrating services where feasible online and strengthening and extending existing online provision. These arrangements often involved new partnerships with community and industry organisations as well as public health and government bodies. In the face of the restrictions imposed by COVID-19, libraries proved agile, adaptable and resilient. Academic libraries found new ways to manage course reserves, extend their virtual reference services, offer online research data services, online workshops and online reading rooms. Public libraries found ways to manage contactless lending, deliver online programming including storytimes, book groups and other community events, and support the schoolwork of children learning from home, as did school libraries. All libraries had to consider interior restructuring to ensure social distancing, as well as implement remote work for staff and virtual

team collaboration. All libraries have made inventive use of technologies, spaces and services to support their communities of users through this pandemic.

And what about afterwards? How will we reflect on the changes in libraries stimulated by the pandemic in time? According to Meyer (1982), when environmental jolts subside, the true resilience of an organisation is often revealed, and the consequences of the adaptations made to cope with the jolts can be properly assessed. Meyer (1982) draws a distinction between first-order and second-order changes, the former being incremental changes that improve on what the organisation already does or improves processes within current organisational parameters. Second-order change, on the other hand, requires a new way of thinking and challenges current approaches and ways of operating. It will be interesting to observe the degree to which the second-order innovative approaches to library service delivery inspired by the pandemic endure long term. Regardless of when we emerge from ongoing restrictions imposed because of COVID-19, it is very clear that the spaces, services and operations of libraries will be impacted for some time to come if not forever.

Overall, the pandemic has provided us with a better understanding of libraries' adaptive capabilities and has demonstrated that library staff are resilient people who are committed to not just continuity but also improvement of services for their communities of users. Most researchers assume that sudden, unwelcome changes are dangerous and perhaps even life-threatening for organisations but evidence and research into organisational resilience over the years suggests that sudden changes can also benefit organizations, make them consider why they exist and reinvigorate and revitalise their operations. Libraries are no doubt already reflecting on their experiences and considering how they can capitalise on them to develop future service delivery for the benefit of all their communities of users.

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Inspiring Research, Innovations, and Best Practices for Sustainable Library Development

Dr. P. Venkata Rao

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Today's libraries are characterized as dynamic and vibrant places and spaces in which learners, cast in the role of discursive consumers with a manifold of mutable needs and expectations, are socially and academically networked, supported and developed in a myriad of ways. The traditional library collaborations are being replaced with public/civic partnerships that ensure inclusion as they enhance the vibrancy and sustainability of communities and to promote sustainable information development strategies for all groups within a society without marginalizing any category. As such, libraries are at the juncture where new digital technologies and emerging pedagogical practice blend and operate at different levels and in different environmental settings. In very recent times this evolving paradigm has been disrupted by the COVID-19 health crisis, libraries have proven to be key response agents reaching out to their stakeholders through the augmentation of existing digital practices while at the same time pushing the boundaries with respect to digital technologies. Moreover, the COVID-19 restrictions on society have certainly heightened awareness of the importance and value of the library as an actual physical entity comprising different social and interactive spaces and zones serving a multitude of needs. Libraries employ a range of approaches to gather intelligence on how learners use and feel about their library spaces and environments. The success of this evolution will be contingent on the creation of inspiring and attractive services for libraries' collections, activities, and spaces. To remain competitive, one has to be innovative. Innovation has moved from consideration to a necessity for academic libraries operating under the dual pressures of economic contraction and technological developments. Libraries should be open to different types of innovation, including new processes and relationships, as well as novelty in products, services and programmes. Librarians will have to bring innovation to the tasks they perform so that their work is used for making knowledge and information resources available for empowering their users and communities they serve. It is not enough to provide access to patrons using cutting-edge technology innovations. Libraries are also responsible for keeping

their patrons safe and secure when they use technology innovations. Some of the innovations might not seem particularly innovative because they were introduced 10 years ago and nowadays several libraries undertake these initiatives, like library automation or implementation of a particular open source software. Laura S Wilansky in her column stated five lessons for libraries looking to innovate in the 21st Century:

• People need libraries to be more than information repositories
• Libraries can play a key role in preserving and strengthening our democracy
• The ways in which librarians perceive and interact with the public is a key determinant of a library's success
• Embracing innovation and collaboration and admitting failures are key to a library's success
• Libraries can play a leadership role in revitalizing and sustaining communities.

In order to provide innovative services to our users of libraries, we need to first identify the situation and look for the opportunity to innovate! Sustainability is now viewed as vital to the mission of many institutions of highereducation, creating a paradigm shift that librarians can help advance with theircollective interdisciplinary expertise. Librarianship particularly lends itself to the sustainability movement that hinges on systems. The sustainability movement is a natural fit for librarians who tend to excel at gathering, synthesizing and disseminating information as well as communicating across the disciplines. Librarians lead users to the authoritative information enabling them to be effective sustainability activists – to be agents of change. Librarians benefit from collaborating and coordinating sustainability efforts within their own profession so they may inspire and sustain one another as well as those they serve. The member states of the United Nations adopted 17 Sustainable Development Goals (SDGs) in September 2015 to tackle the world's biggest problems, such as poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. Libraries play a vital role in mproving outcomes across the SDGs. Libraries promote universal literacy, provide access to information, advance digital inclusion, preserve and provide access to the world's culture and heritage, serve as centres for research and much more. Libraries working to achieve specific SDGs in their communities should analyse their collections to ensure they adequately support economic, environmental and social development. The International Federation of Library Association (IFLA) has been documenting SDG stories from various countries through a dedicated website 'Library map of the World' at: https://librarymap.ifla.org/stories. The other library associations in the forefront include ALA and ALIA. The creation of green libraries is approaching a tipping point, generating a Green Library Movement, which is comprised of librarians, libraries, cities, towns, college and university campuses committed to greening libraries and reducing their environmental impact. Some of the green library features include:

natural daylighting, shading to filter direct sunlight, solar panels, sensors that control indoor lighting for improved energy efficiency, and bamboo wood flooring. A simple green step that libraries can do for the health of the planet and their employees is to quit using toxic chemical cleaners and switch to environmentally friendly cleaning products. Several initiatives have already been taken towards 'going green' by the library associations, like ALA and SLA. The focus in academic libraries has been shifting towards research and scholarship as developments in digital humanities, data curation, and open science have created opportunities for librarians to extend their roles in the research arena, which has resulted in several collections of case studies documenting emergent practices and innovative strategies fir research support. Developments in information literacy, instructional design, peer-assisted learning and open educational resources have also produced case studies of new and improved practices. Research in librarianship could be based on integration, inspiration and innovation. SS Fuller states that we do not have to do original research in order to apply wisely the results of research by others to improve our practice and further adds that: Library practice research is frequently disparaged; however, potential solutions to problems we face, even in an online era, are rooted firmly in the history of the practice of librarianship. The principles of information organisation – indexing, collection management, archiving and user needs analysis- can be applied to the current problems we face. We have a very rich heritage of research and practice to draw upon, and just because work has been done in a past ear before computers and just because it is not accessible via the web, does not mean the work has become irrelevant. The technical tools at our disposal may be more capable and more precise, however, our intellectual heritage is strong, and we should not deliberately go about reinventing the wheels. There are many exciting opportunities for libraries to further develop and enhance their role as partners in, and pioneers of, academic and scholarly research. These require changes around how research is viewed within libraries; how the library is perceived within their institution; and a focus on building the research capacity and visibility of library colleagues. Libraries will not survive only on those users who try to approach, but they have to make efforts to reach out to the user community by knowing them well through inspiring research, innovations and best practices for sustainable library development.

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Message from the Head of the Department

It is my pleasure to send this message to the volume of extended abstracts of the Fourth International Conference on Library and Information Management (4th ICLIM 2021) organized by our Department of Library and Information Science, Faculty of Social Sciences, University of Kelaniya, Sri Lanka. International conferences immensely a platform to encourage a research relationship among scholars all over the world. The Department of Library and Information Science of the Faculty of Social Sciences, University of Kelaniya has successfully organized its 4th International Conference intending to bring together Library and Information Management Scholars on to a single platform to put forward and discuss their research findings under the conference theme "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations". A glance at the contents of reviewed extended abstracts illustrates to what extent the conference has been successful in its subject material and the objectives that it aims at. I am therefore very happy to deliver this message to this conference that stimulates a new research culture in the country and promotes interaction between the social sciences and policy implementation. Many have contributed immensely to make the conference a great success. I take this opportunity to thank Prof.Nilanthi de Silva, Vice-Chancellor, Prof. M.M. Gunathilake, Dean, Faculty of Social Sciences, all Deans of Faculties, conference organizers, the keynote speaker, theme speakers, coordinators, chairpersons, rapporteurs, foreign delegates, all department members and all others who contributed immensely to make this event a success. I also congratulate the local and foreign researchers who submitted research articles to this conference. I wish this conference all success.

Senior Prof. M.K. Weerasinghe
Head, Department of Library and Information Science
University of Kelaniya,
Si Lanka.

Message from the Coordinators

It is a great enthusiasm and a valuable opportunity for us to issue a message on behalf of the Coordinating and the Organizing team of the 4th International Conference on Library and Information Management (ICLIM 2021) organized by the Department of Library and Information Science, Faculty of Social Sciences, University of Kelaniya. This time, it is a value addition that the Main Library, University of Kelaniya and the Research Center for Social Science (RCSS), University of Kelaniya joined as the key collaborators of this scholarly event. The principal purpose of the International Conference on Library and Information Management (ICLIM 2021) is to seek avenues, strategies, and know-how for achieving the part and partial goals in a pandemic situation, being its prime theme is the "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations".

The issue at hand is how the information professionals face the challenge effectively and productively in using these challenges as strategies and innovations. This International Conference expects to gather intellectuals, researchers, information professionals, students, and other stakeholders in the LIS profession into one virtual forum to create constructive dialogue to support and address the changing needs and demands of information and knowledge societies. To contribute effectively to the achievements of the goals of "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations" in the information science perspective, to share best practices and experiences gained by professionals, practitioners, educators, and policymakers of LIS sector, to establish collaborative programs and develop linkages with other educational institutions/universities, research organizations, professional associations in the field of library, documentation and information science, to create a collaborative scholarly platform for all, to create constructive dialogue in adopting and utilization of technologies and facing challenges forced in the global crisis are other finite objectives of ICLIM 2021. We wish to lend our deepest gratitude and thank the Vice-Chancellor, Prof Nilanthi de Silva, the guest of honor Senior Prof. Premakumara De Silva, Chairman – SCOLIS, the Keynote speaker Prof. Anne Goulding Professor in Library and Information Science, Victoria University of Wellington, and other themes speakers Dr. Dilara Begam, Dr.Rashidah Bolhassan, Prof. Ramesh C. Gaur, Dr. P. Venkata Rao and Dr.R. Balasubramani, the Dean Faculty of Socials Sciences, Prof. M.M. Gunathilake, the Dean,

Faculty of Graduate Studies, Senior Prof. A. Jayamaha, and other Deans of the University, Senior Professor Kapila Seneviratne, Chairman, Research Council.

It is our humble duty to thank the distinguished scholars and professionals who exclusively join our virtual ICLIM 2021. The dedication provided by the Editors, Reviewers, Chairpersons, and the Presenters of the papers, voluntary team, and others participating at this occasion is also valued.

We must thank the members of the Sub Committee, Members of the Conference Secretariat. Conference Team (CT) who wholeheartedly and honestly did support warrants a worthy appreciation. All Heads of Departments, teaching and non-teaching staff of the Faculty of Social Sciences deserve special thanks. The service given by the Head of Department of Library and Information Science, all teachers in our conference organizing team including and non-teaching staff of the Department is also appreciated.

We lend everyone a happy and rewarding experience at the 4th International Conference on Library and Information Management (ICLIM 2021), University of Kelaniya.

Senior Prof. M.K. Weerasinghe and Senior Prof. W.A Weerasooriya
Co-Chair and Coordinators of ICLIM 2021

Message from the Editors

Welcome to the 4th International Conference on Library and Information Management (ICLIM 2021) with the theme "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations" which could be considered as one of the excellent and rare opportunities we all procure at this moment. However, the risk and responsibility of compiling virtual conference proceeding volume have been a cumbersome job that has to be performed with utmost care in reading, perusing and then evaluating each of paper submitted within a limited time slot. Our panel of reviewers was so cooperative, dynamic enough in supporting us whenever we dispatch papers for reviewing the purpose and they showed their higher talents in scrutinizing the papers containing very implicit and more multifaceted micro thoughts and inferences.

We the editors sincerely expect your valuable ideas, comments, or suggestions inferred upon the contents of those papers appearing in the volume, which connote embedded knowledge, and ideas that convey the utilization of information, knowledge, practice, and experience on developing Libraries beyond the Global Crises. We also very much appreciate all the contributors of the papers submitted and all papers cover the subthemes and rightly concentrate upon the very theme of the ICLIM 2021 then "Re-envisioning and Fostering Resilient Libraries beyond the Global Crises: Challenges, Strategies, and Innovations"

This time Conference Team was of the view of collecting abstracts as an extended form, which gave a naval experience and a difficult task not only for those submitted papers as well as for us. Some of them have to get used to writing, re-writing, and so forth. The editorial team decided to publish the extended abstracts as e-proceedings as they contained the attributes of quality and the format. The volume is organized under our five themes. The last track was allocated for presenting abstracts of recently passed out graduates. However this session was, open the other undergraduates as well. Many of graduate's abstracts were based on the research projects in their final year and it will be a great opportunity for them to share knowledge and experiences while presenting the results of their research in an international level forum like this. Further, these graduates the undergraduates are encouraged to submit their research or conceptual findings at any other national or international conferences and asked to keep up and develop their research potentials further. We further request all other LIS undergraduates to benchmark this event for achieving their career goals. Both senior academic and the library professionals must help these young researchers to continue their research process as well as career paths.

We would like to pay our gratitude and gesture to all who did contribute in all aspects to produce this scholarly publication.

With best wishes,

Editorial Team

Dept. of Library and Information Science

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List of Abbrevation

ADEPLIS	Advanced Distance Education Programme
ALA	American Library Association
BOAI	Budapest Open Access Initiative
CAL	Computer Assisted Learning
CAS	Current Awareness Service
CBL	Computer Based Learning
CC	Creative Commons
CMS	Content Management System
COLA	Course on Library Automation
CPD	Continuous Professional Development
CSCL	Computer Supported Collaborative Learning
DIPLIS	Diploma in Library and Information Science
DLIS	Department of Library and Information Science
DOAJ	Directory of Open Access Journals
DRTC	Documentation Research and Training Centre
FGS	Faculty of Graduate Studies
FLA	Fellowship of the Library Association
GPL	General Public License
ICT	Information and Communication Technology
IFLA	International Federation of Library Associations
ILS	Integrated Library System
IR	Institutional Repository

KDU	General Sir John Kotelawela Defense University
LIS	Library & Information Science
LMS	Library Management Systems
MARC	Machine Readable Catalogue
NCL	Networked Collaborative Learning
NLDSB	National Library and Documentation Services Board
NSF	National Science Foundation
OPAC	Online Public Access Catalogue
ORBL	Online Resource Based Learning
RCI	Research Citation Indexes
RRMS	Researcher prefer Reference Management Software
SLLA	Sri Lanka Library Association
UGC	University Grants Commission
UPLSB	Uva Provincial Library Service Board
VLE	Virtual Learning Environment
WBT	Web-Based Training
WIF	Web Impact Factor
WWW	World Wide Web

Contents

Understanding information seeking behavior of ophthalmology students in Tamilnadu

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Abstract

Purposes of this study investigate to the information seeking behavior of ophthalmology students. The objectives of the study are to identify the ophthalmology student's information usage behaviour such as what kind of search engine, databases and social networking they have to use. And find their barriers. The data for the study is collected from the ophthalmology students in the period of 2021. A questionnaire method was used in this study. This study shows the results Out of 213, 147 respondents use Google, remaining 66 (31.0%) respondents use Yahoo. MS-Excel and SPSS (Statistical Package for Social Science) software's for use data entry and data analysis. H test (Non Parametric test-Kruskal Wallis H test) used by the SPSS. Finding of the study, it's clear that Google search engines were mostly used by the ophthalmology students. Majority of the students 118 (55.4%) use NOD (National Ophthalmology database), 55 (25.8%) students use Medline database. It's clear that 95 (44.6%) percentage of ophthalmology students use WhatsApp for information seeking.

Keywords: *Information seeking behaviour, ophthalmology students, Information Needs, library Use.*

Introduction

Information seeking behaviour is a part of the curricula of several libraries. This study recently investigation has been carried out in to how ophthalmology students searching information for their needs (Younger, 2010). This study is one of the important because this is one way to analyse to how a user seeks their information and how users fail to access the accurate information in their libraries. Student's information seeking process is the most important component of library activities (Abirami & Jayaprakash, 2021). Students are using to seek information from the search engines such as the Google, Yahoo, and Bing. They are using social networkings such as Facebook, WhatsApp, Telegram, Instagram and Twitter. In that time students are facing some barriers such as the specific information not available, difficulty to downloading electronic information, and they are facing inadequate searching skills. So an Ophthalmology student wants to some improvements in their libraries.

Review of Literature

Literature related to the information seeking behaviour showed that there related to ophthalmologist. This study concludes that the ophthalmologist librarians, institutions, and ophthalmology communities should conduct programmes to improve the literary skills (Govindarajan 2019). Several studies related the study scholarly communicated the other disciplines such as the information seeking by (Deshpande, 2020): information using in

databases (Ebrahimzadeh et al., 2020); and the topic on internet usage and information seeking behaviour of the medical colleges (Rajawat, 2020).

Context and problem statement/ research question

We found no studies that have investigated on information seeking behavior of ophthalmology students in Tamil Nadu. Hence, the present study is set to throw light on ophthalmology student in Tamil Nadu.

Materials and Methods

The data for the study is collected from the ophthalmology students in the period of 2021. A questionnaire method was used in this study. A total of 250 questionnaires were distributed to ophthalmology student in Tamil Nadu. Out of 250 questionnaires distributed only 213 questionnaires were received back. Each questionnaire has 11 questions. First part have the gender, age and area, second part have students information seeking behaviors, barriers of information seeking time and third part have the what kind of improvements students want in their libraries. This questionnaire has been distributed in Tamil Nadu ophthalmology students. We have used MS-Excel and SPSS (Statistical Package for Social Science) software's for data entry and data analysis. H test (Non Parametric test-Kruskal Wallis H test) used by the SPSS.

Results and Findings

The study found that information seeking behavior among the ophthalmology student's total respondents 213. Out of 213, the majority of the respondent 123 (57.7) are male and 90 (42.3). This study results clears that information availability was 73 (34.3) of the respondents use social networking, 53 (24.9) of the respondents use libraries, 42 (19.7) of the respondents use internet, 32 (15.0) of the respondents use electronic databases and remaining 13 (6.1) of the respondents use online discussion. Hence it's clear that majority of 73 (34.3) the ophthalmology students use social networking. Ophthalmology student's regards that the information seeking behavior on search engine, databases, social networking. Out of 213, 147 respondents use Google, remaining 66 (31.0) respondents use Yahoo. Hence it's clear that Google search engines were mostly used by the ophthalmology students. Majority 118 (55.4) students use NOD (National Ophthalmology database), 55 (25.8) students use Medline database, 26 (12.2) students use Up-To-Date database, and 14 (6.6) students use PubMed database. Hence it's clear that the 118 (55.4) students use NOD (National Ophthalmology database) for their information needs. 95 (44.6) percentage of ophthalmology students use whatsapp, 73 (34.4) of students use Telegram, 32 (15.0) of students use facebook, 7 (3.3) percentage of students use twitter, 6 (2.8) percentage of students use instagram for information seeking. Hence it's clear that 95 (44.6) percentage of ophthalmology students use whatsapp for information seeking. Frequency of library usage

among the ophthalmology, majority 142 (66.7) students use library 1 hour for per day, 46 (21.6) of students use library 2 hours per day, remaining 25 (11.7) students use library more than 3 hours per day. The majority 67 (31.5) of the students want to improve both ways like print resources, electronic resources, reference materials and journals for their libraries. 56 (26.3) of the respondents want to improve their printing resources their libraries, 35 (16.4) of the respondents want to improve their electronic resources for their libraries, 34 (16.0) of respondents want to improve reference materials their libraries and remaining 21 (9.9) of the respondents want to improve their journals for their libraries. Hence it's clear that the majority 67 (31.5) of the students want to improve both ways like print resources, electronic resources, reference materials and journals for their libraries. Kruskal Wallis H test for Area of improvement and the age of the respondents, it's inferred that there is no significant relationship between the respondent's age and their area of improvements for their libraries. The p-value 0.086; which is more than 0.05 so null hypotheses for accepted. Hence there is no significant relationship between the respondent's age and their area of improvements for their libraries.

Discussion and conclusion

This study concludes that 95 (44.6) percentage of ophthalmology students use WhatsApp for information seeking. Majority 142 (66.7) of respondent's frequency of library use 1 hour, per day for information seeking. Majority of respondents 79 (37.1) of the respondents face the Inadequate searching skills barriers at the information seeking time. The p-value 0.086; which is more than 0.05 so null hypotheses for accepted. Hence there is no significant relationship between the respondent's age and their area of improvements for their libraries. Training programs are required to help ophthalmology students to find and access reliable and up-to-date information resources. The ophthalmology students may need information literacy programmes, and providing books. This would be helping ophthalmology students to re-find information for the future use.

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The Impact of the School Library for Information Seeking Behaviours of School Students: A Case Study based on the Academic Achievements of *G.C.E* Advanced Level (A/L) Students of Sri Lanka.

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Abstract

As a learning resource, many researchers have confirmed the influence of the library makes a significant contribution to students' academic achievements. Based on these findings, there is a need to study the behavior of G.C.E advanced level students in using school libraries. Furthermore, this paper engages in case studies to analyze the relationship between students' behavior and their academic achievements in the use of school libraries as a learning resource. The use of information sources by students in the school library was increasingly seen in the use of books, periodicals, and newspapers respectively. However, the use of sources such as dictionaries, encyclopedias, maps, etc. was very low and reference services and electronic information services were found to be non-existent in many school libraries. According to the results of the correlation analysis of student library behavior, the library services used show a positive relationship between reading services and academic achievement. However, since there is no correlation between lending services and academic achievement, this highlights that lending service is not familiar to students. Therefore, it is recommended that, implementing library marketing and user awareness programs on both services to attract students. Furthermore, in the analysis of the correlation between students' results of G.C.E. (A/L) examination and school library use, a high positive correlation was found between library use for more academic purpose and academic achievements. Giving more priority to academic reading than leisure reading contributes to students' academic achievement. There is also a positive correlation between the subject and the result, which is given prominence in academic readings. The reliability of students' school library behavior results was confirmed by their university library behavior test. Students' school library behavior contributes to their academic achievements, leading to higher education opportunities and lifelong skills.

***Keywords:** Academic achievement, Information seeking behaviours, School library, G.C.E advanced level, Library usage*

Introduction

Education is the right of all children and the school is the center of learning. The school library is a physical and digital learning space for students, focusing on reading, inquiry, research, information, thinking, imagination, and creativity(IFLA, 2015). The benefits and importance of school libraries are high(Sætre & Willars, 2002). Many researchers have found strong links between library use and student academic achievement (Wong & Webb, 2011; Goodall & Pattern, 2011; Cox & Jantti, 2012; Stone & Ramsden, 2013; Montenegro et al., 2016; De Jager et al., 2018). Studying students' library information-seeking behaviors also provides feedback to assess library service efficiency and student outcomes. Studies on students' school library

behavior and academic achievements in research literature have been conducted using school children themselves. The G.C.E (Advanced Level) examination is the maximum stage of assessing student outcomes in school education. Since the highest academic achieving students are eligible for university education, it is worthwhile to study school library behavior with university-qualified students. Therefore, in order to fill this gap in the research literature and for a more successful assessment, a case study has been conducted using university qualified students who have achieved high academic achievements in school education.

Objectives

This paper engages in an explore school library behavior and studying the school library's contribution to their academic achievements.

Objectives of the study are,

- To identify the contribution of school library services to academic achievements.

- To analyze the relationship between students' behavior and their academic achievements in the use of school libraries.

Methodology

In this study, 320 undergraduates who qualified for higher education at the University of Ruhuna were randomly selected as samples and a case study was conducted. The population of this study is all the students who are studying G.C.E(A/L) in Sri Lanka. In this study, which used primary data, a questionnaire was used to collect the data. Descriptive research methods have been used to present the data. Correlation analysis has been used to analyze the relationship between variables in order to achieve the objectives of this research in data analysis. Accordingly, the following hypothesis testing have been performed.

Hypotheses Test 1

H_1: There is a positive relationship between reading services usage and students' academic achievement

H_2: There is a positive relationship between lending services usage and students' academic achievement

Hypotheses Test 2

H0: There is a non-relationship between library usage and students' best results subject of G.C.E. (A/L) examination

H1: There is a positive relationship between library usage and students' best results subject of

G.C.E. (A/L) examination

In addition, hypotheses have been tested to students' university library behavior to verify the reliability of their school library behavior results.

Hypotheses Test 3

H0: There is a non-relationship between students' school library behavior and their university library behavior

H1: There is a positive relationship between students' school library behavior and their university library behaviour

Results and Discussion

Majority of respondents are females 61.88% (198) and 38.13 % (122) male respondents. Among them, 44.06% (141) of the respondents were first attempt, 26.25% (84) of the respondents were second attempt and 29.69% (95) of the respondents were third attempt elected for university admission. 207 (64.69%) of them have been selected from national schools, 87 (27.19%) from provincial schools and 26 (8.13%) from international schools and all of them have library facilities. All of the respondents (100%) used the school library, and the use of books, periodicals, and newspapers were high when considering their use of information sources.

Table 1: Information sources usage in school library

Type of information sources	Frequency	Percentage
Books	320	100.00%
Periodicals	134	41.88%
Newspapers	167	52.19%
Dictionaries	36	11.25%
Encyclopedias	7	2.19%
Maps	82	25.63%
CD/DVD	21	6.56%
Other Electronic sources	0	0.00%

Students' use of reference sources and modern electronic information sources remain low, due to the lack of those sources in school libraries. The mean of the students'

lending library materials from school library were 2.28, that result shows that 'less than 10' and students' borrowing behavior is very poor. But, the mean value of reading behavior of students in the school library is very high at *3*.19, which represents 'more than 30'. However, not only library reading behavior but also lendin behavior is important for academic success.
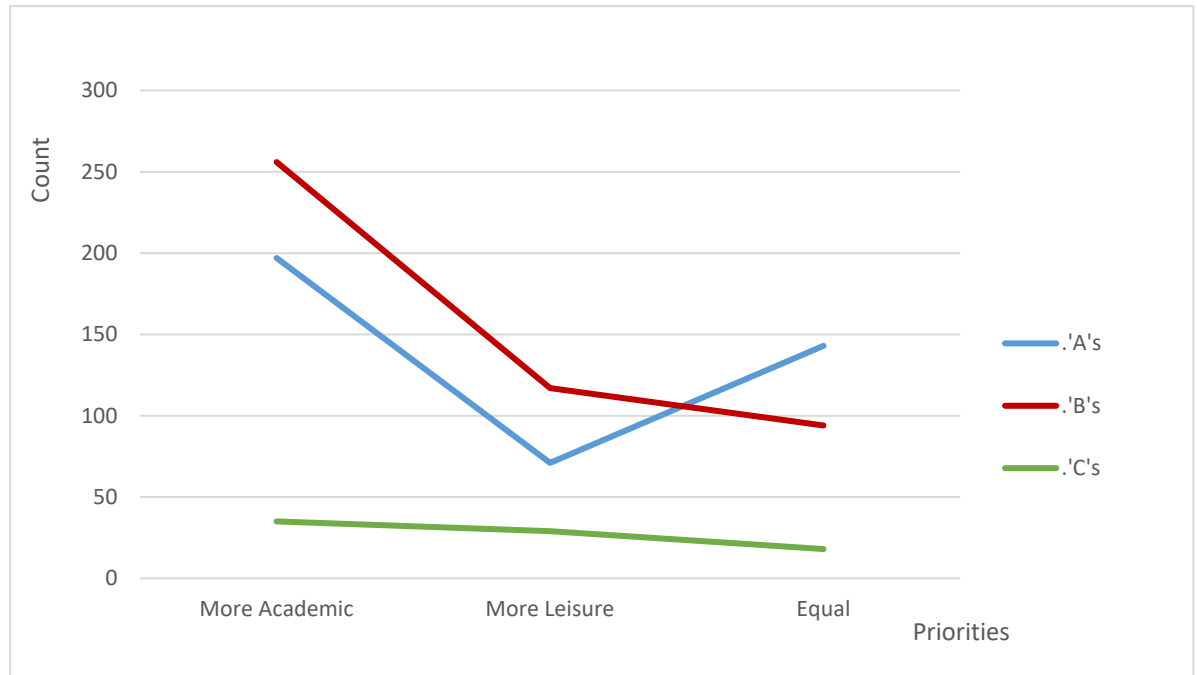
Figure 1: Distribution of G.C.E.(A/L) results by library usage priorities

In grading the reading behavior priority of respondents, the percentage used by the library for academic reading purposes was identified as 43.95%, the percentage of library use for both academic reading and leisure purposes is 29.30% and the percentage of library use for leisure purposes is 26.75%. Figure 1 shows the students' achievement in the subjects and the priority of library use in the examination and the relationship between higher achievements and academic reading.

*Table 2: Results of pearson correlations for hypotheses tests ** Correlation is significant at the 0.01 level (1-tailed).*

Hypotheses tests	pearson correlations	Significant status	Relationship
Hypotheses test 1			
H_1	R=.596** (p<0.01)	Significant	Strong positive
H_2	R=.043 (p>0.01)	Not significant	None
Hypotheses test 2			
H_1	R=.476** (p<0.01)	Significant	Positive
Hypotheses test 3			
H_1	R=.693** (p<0.01)	Significant	Strong positive

Hypotheses test 1 result indicated that the positive relationship between reading services usage and students' academic achievement, hypotheses test 2 result indicated a positive relationship between library usage and students' best results subject of G.C.E. (A/L) examination. Also, hypotheses test 3 result indicated that positive relationship between students' school library behavior and their university library behavior.

Conclusions and Recommendations

There is a discrepancy in the existing information sources in school libraries. Also, school librarianship pays less attention to the development of reference sources and electronic information sources. School librarians should not limit themselves to traditional library services but should focus on establishing electronic library services. The education authorities should take steps to plan the necessary projects and provide financial assistance and also, inter-library collaboration, networked information systems may help solve these issues. Although the reading behaviors of the students were positive, the library material lending behaviors were unsatisfactory. Therefore, library marketing and user awareness programs should be conducted regularly. However, students' reading behavior priority shift greater inclination towards academic purpose affects their academic achievements.

According to hypotheses test results, students' library reading behavior was a 59.6% impact on their academic achievements. This relation is further confirmed by the 2nd hypotheses test with library usage was a 47.6% impact on students' best results subject of G.C.E. (A/L) examination. The third hypothetical test results show that students 'school library behavior is functioning as a skill in the university scenario, and the result was confirmed the accuracy of students' responses. Therefore, patron behavior of the school library as a learning resource makes a significant contribution to the academic achievements and lifelong skills of G.C.E. (A\L) students in Sri Lanka.

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Disaster Preparedness in Libraries: a study based on the museum library of Sri Lanka

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Abstract

This research is conducted to identify the Disaster Preparedness in National Museum Library of Sri Lanka. Disaster preparedness is essential on the part of each library or archive. Disaster preparedness prevents response to damage caused by water, fire and other emergencies. This activity should be a priority in all institutions, the reason is because of the value of the collection, but although collections that are not meant to be stored for long are institutional investments, therefore must be saved. Disasters in libraries come in two main forms, namely natural and man-made. The museum library which has a largest collection in Sri Lanka. The main objective of this study is to identify the disasters influenced to the museum library of Sri Lanka related to the library building, staff, collection and recognized current disaster preparedness actions. The museum library of Sri Lanka is used as the sample. The questionnaire and interview were used as the instruments in this study to collect data. Data analysis is carried out using the word software. End of the research this study discovered not there a formal disaster management plan in this library and there is not a good support of the mother institute, financial constraints and an inadequate policy framework, less resources are reasons for that. It is recommended that library development plan for disaster management training programs for staff order to increase their preparedness about disasters and make a disaster management plan.

Keywords: Disaster management, Disaster preparedness, Museum Library, Library management

Introduction

A disaster is, "any incident which threatens human safety and / or damages or threatens to damage ,a library's buildings , collections , contents , facilities or services"(Mathews & Eden,1996:4)Various disaster related issues impacting libraries , some context must be established by way of historical background. In 2005, prior to Hurricane Katrina, historic presentation and the institute of library services partnered to conduct an extensive survey of libraries throughout the united states to determine the overall "health" of collection.

Library disasters have the unique quality of being both unexpected and inevitable. Disasters can be caused by nature. These include floods, earthquakes and tornadoes. Disasters can be caused by man. These include civil unrest, arson and vandalism. While we tend to think of disasters as large scale events, most disasters will be smaller in scope, much less newsworthy such roof leakages, termite activities, yet just as destructive. Libraries and archives are bedeviled by everyday assaults: leaking roofs,

dripping pipes, a moldy book returned by a patron, a small fire set in the book return, a window left open during a night of pouring rain.

People generally think of disasters as events that occur suddenly, causing damage in a matter of seconds, hours or days. Some disasters, however, occur so slowly, that we suddenly realize we are in a disaster that has been underway for some time and may continue for an extended period of time. The cumulative damage may not be known for years and the public may not be aware or concerned until the damage reaches crisis proportions-building cracks, rodents, termites and insect activities.

Disaster preparedness make libraries more useful because access to information is maintained so they can provide access to information for future generation.

Objectives

The main objective of this study is to identify the disasters influenced to the museum library of Sri Lanka related to the library building, staff, collection and recognized current disaster preparedness actions. Other objectives are,

- Determine the level of staff sensitization ad awareness on disaster preparedness of the library.

- Investigate why the management of the institute as not interested in developing a disaster management plan.

- Highlight the importance of disaster management plan

Methodology

The method of study is qualitative case study. The research was carried out using national museum library of Sri Lanka. Primary data were collected from questionnaire consisting of librarian in this library. When submitting the questionnaire, a three pages questionnaire with simple questions was presented. The questionnaire was given the opportunity to present the questions in the correct and italic ways and to express his ideas in word. Further to that, conducted an interview with librarian to collect some data. The study can clearly identify the disaster preparedness actions related to the library building, staff, and collection.

Results and recommendations

There is a likely-hood of fire as the collections are mostly organic in nature. Once fire starts, it is difficult to save those materials which get fire. Items not directly engulfed in flames can be charred by soot and smoke. Heat emitted from fire causes buildings to shrink and wrap and

plastic base materials to melt. Water used for fighting fire can cause enormous damage. Besides fire, floods, high winds, cyclones, earth quakes are also agents of deterioration for the library collections. These will lead documents to absorb water, swell, warp and become extremely vulnerable to physical damage. Dyes and ink may bleed and book pages stick together. Leather bindings seriously wrap and change shape. Effects of disasters on library collections are too obvious to comprehend.

The results of the questionnaire and interview were summarized. According to them, the museum libraries in Sri Lanka still do not have a formal disaster management plan. The collection is destroying day by day. But they are not stored electronically and it appears there are no enough disaster management practices. Not only that, there is not enough subject knowledge of disaster management, not a good support of the mother institute, negligence of the staff, financial constraints and less resources are reasons for that. There was nonexistence of the library without disaster management plan.

Based on the findings of the study, the following recommendations were advanced:

- The formal disaster management plan of a library is made up of a compilation of smaller plans that must be crafted with the support of library staff. It should contain clear, short and precise instruction and be readily available to all employee, especially the disaster management team.

- Librarian should ensure adequate sensitization of all staff on disaster preparedness at all times. Creating disaster consciousness among library staff will make all the difference during disaster situations.

- Should start the electronically material stored programs

- The roof of the library buildings should be checked before and during the rainy season in order to repair leaking spots so that water seepage will be stopped or reduced to protect materials.

- Should establish disaster response teams who would implement their disaster plans. They should hold regular compulsory staff awareness and training sessions as supported by Ogden (1999); Adinku (2003); and Hasenay and Kritalic (2010).

Conclusion

Disaster preparedness prevents response to damage caused by fire, water and other emergencies. Staff of the museum library of Sri Lanka was not sensitized at all on disaster preparedness. The activities of insects, termites and rodents constitute major threats to the safety of library resources. The study showed that library has not a formal disaster management

plan, disaster response team, staff training programs and library had no insurance policy for their resources. There is no substitute for good preparedness when it comes to disaster response. But library need to disaster management plan and should ensure adequate sensitization of all staff on disaster preparedness at all times.

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Revitalizing School Libraries for Enhanced Service Delivery

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ABSTRACT

Revitalization of libraries with modern innovative services that are necessary to bring libraries to the users to encourage independent learning and lifelong education would help schools libraries to provide effective service delivery to its users. This paper is set to look into Revitalization of School libraries for enhanced service delivery. It highlighted the roles of school libraries in this present era. It captures revitalization of school libraries for the future management of information resources and the need to review the curricula of library school towards preparing the 21ˢᵗ Century Librarian, Libraries and students. It captures space management in the library and shows how access to information can be enhanced by changing the mindset of librarians. It concluded that school libraries need to revitalize their services by transforming the way information is provided to users for enhanced service delivery. It provided a way forward that school libraries should be equipped with high class technology to provide and compete with other libraries globally and they should provide resources and equipment that would be user friendly to all categories of students irrespective of their background.

Keywords: *Enhancement, Revitalizing, School Libraries, Service Delivery.*

Introduction

Library and information services have undergone various stages of transformation from the inception and this date back to the pre-writing era when human brains served as the only repository of ideas and knowledge. Information was transmitted from one person to another through word of mouth and the human brain was not able to store and retain all the knowledge available. This led to the emergence of writing in places like Egypt, Babylon, Sumerian, Persia, Assyria, Phoenicia etc. the art of writing made it possible for knowledge and information to be recorded on clay tablets, papyrus sheets, stones, parchments, vellum, papers, bark of Trees etc. The libraries in times past were seen as a collection of physical books which were accessed from shelves and used on a reading desk and a place for manual borrowing and lending. This for long has been the notion that people had about libraries. As such the libraries had little value in the eyes of the community. It was not perceived to be a place that can contribute to solving societal needs. This has been the notion particularly in Developing countries till recently with the coming of computers and advancement in technologies.

(Ramana, 2010) Change is inevitable and is a natural phenomenon. In the library and information science, this change has been brought by Information and Communication Technologies (ICT) among other factors. ICT has tremendous impact on revitalization of '[library operations, resources, services, library and information professionals must, of

necessity, develop expert technological competencies required to make the best use of opportunity ICT offers in order to meet up needs of services and change the complex information needs of the user community.

Today's library users are now more digital native and digital immigrants who are ready to leverage their digital skills to enhance their access to information to meet their information needs. The libraries have continued to play a dominant role in the educational development of the citizenry through information provision, both in an academic environment and in the public sector. In revitalizing our contemporary school libraries, services and library information science education we need to embrace the current trends in accessing information, changing libraries and changing libraries through enhanced access making the libraries relevant. This role tends to vary, depending on the user group and the level of developments in the society.

School libraries

School libraries are the type of libraries established in a primary or secondary school. It is an integral part of the school community. School libraries pursue the vision, principles of the school management. (Fakomogbon etal, 2012) Opine that school libraries help to support the school curriculum by providing up-to-date information to keep teachers and students abreast of new development. The school library compliments the work of the classroom teacher with the ultimate goal of ensuring that each student has equitable access to resources, irrespective of home opportunities or constraints. School library reflects and encourages collaborative learning and sharing of ideas. School library remains the power house of an educational institution; any educational institution without a library is as lifeless as a motor car without an engine and a body without a soul.

Role of school libraries

Today, 'Important goals of global education is to develop student's sense of belonging and instill the sense of right and wrong in children in order to be responsible citizens'. Schools are the educational institutions wherein children are guided and trained to be disciplined and enlightened individuals. Information professionals agree that "Libraries Change Lives" which is a universal truth, for seeing the kind of reference resources and the scholarly works they contain, apart from the services they offer to the school community, the conservatory library is crucial as it is the foundation on which other awareness is erected upon. (Fayose, 1995) Stated the best learning is a situation whereby trainees discover knowledge and apply for their personal benefit.

Revitalization of school libraries for future management

ICT has changed the school libraries in a profound way. Computers, networked, media and electronic resources had become an integral part of the school programs for the past decade. This has been emphasized as School Library Media Centre (SLMC), School Resources Centre (SRC), or Educational Media Centre (EMC).

All spheres of school libraries and learning facilities are being affected by ICT massively. (Singh, 2014) Quote "Robbins and Coulter change is any alterations in people, structure or technology. Change involves moving from the current state things, the status quo, to a new state thing. It is therefore a process of moving from what is known to the unknown". School library served as the Centre for fostering long-life learning, experiences and changes are identified with the emergence technology. ICT has a tremendous impact on the performance and services of every institution and organisation; libraries are not excluded from it. The impact of ICT has transformed the 'traditional library' into 'automated library'. 'Digital library' and' virtual library' are considered the birth of ICT. Majority of libraries nowadays are operating as hybrid libraries due to digital libraries being a well organised collection of electronic resources which is a very complex and dynamic entity.

According to (Singh, 2014) ICT has brought phenomenal change in the information collection, preservation and dissemination scene of the world. It is a complex entity because it is completely based on ICT and the concept is of recent origin. Its main aim is to provide ready access to the required information at the right time to the right user with right information. The collections of digital libraries are not limited to the document surrogates; they extend to digital artefacts which cannot be represented or distributed in printed formats. Therefore, a digital library is not a single unit, but a complex and multiple units that provide instant access to all information, for all sectors of society, from anywhere in the world.

In view of these (Ballantyne, 2010) says Librarians will need to add skills from knowledge management, social media, participatory communication and information technology to their existing core focus on content.

So also, (Ochai, 2012) believed that future libraries will play a wider range of roles. They will be more active in opening access to information and knowledge in dissemination (not just for collecting and documenting) global goods in catalyzing knowledge sharing among people … and in providing a range of targeted services and products. He further, added that future libraries will be more and more e-libraries providing access to current and archival knowledge in a wide range of digital format

Therefore, in these context libraries, librarians, library information science education and services rendered in all part of the world must be revitalized in order to cope up with current trend of technology in information seeking behaviour of its users, etc. The day has come to

adopt change in operation and services of libraries. Beside, that libraries manager can emulate management at par with information management in the library remotely.

(Reagon, 2005) says not only has the librarian's role change from "keeper of books" to "information manager", the traditional librarian is able to move out the "institutionalized" library setting to the "deinstitutionalized" information environment where he can perform a variety of roles as "information broker", website "developer", "information specialist", "knowledge Manager", "software librarian" and "information analyst"

Modern information management therefore requires a lot of flexibility in terms of library space and services (Freeman, 2005) conceptualizing the library of the 21st century, view it as the only centralized location where new and emerging information technologies can be combined with traditional knowledge resources in a user-focused, services-rich environment that supports today's social and pattern of learning, teaching and research as to the internet that isolate people. He proposes a library that will offer 24 hour access with critical services and technology provided and located when and where they are needed. (Saleh, 2016) Assert that application of computers and other ICT to perform traditional library house-keeping operations such as acquisition, cataloguing, circulation, references and serial control is viewed as the library automation while, the uses of platform where by librarians can generate, store, retrieve, preserve and transmit information within and outside libraries have increased the information processing capacity of the economy at the exponential rate and simultaneously enhance the salience of knowledge-based inputs in every aspect of production. It also enables libraries to dramatically reduce the cost of generating, storing, transmitting and processing information throughout for effective and efficient management. (Chisenga, 1999) Affirmed, that information professionals make valuable contributions to the growth of the global information infrastructures. Therefore, in view of these Information managers in this age should be proactive, visionary and be aware of the happening in the new information environment.

The changing school library environment

The changing global information has brought with it changing concepts, function and services of the traditional libraries. The role of libraries has equally broadened beyond the traditional libraries model with its emphasis on physical resources. "The concept of libraries as a physical structure is rapidly changing to that of a digital environment. While the "brick and mortar" library has not disappeared completely, we are moving closer to physical and virtual information hubs. (Ochai, 2012). With the advent of technology going into the libraries no longer requires physical visit but virtually. Libraries management and resources are increasingly being expanded to include digital formats to support user's expectations. Other notable changes on the library scene are that librarians are becoming information and

knowledge professionals. Librarians have hitherto pride themselves as they measure the effectiveness of their library collections in terms of volume of books and journal titles. This emphasis has shifted to accessibility to collections/databases in some distant locations. It is no longer ownership but accessibility to desired information that now counts. User information demands are increasing in terms of access to facilities at their desktop, I-pad and smartphones.

The emerging information revolution caused technological advances. This has changed the nature of libraries as well as societal expectations of needed library services which now require the new knowledge and skills which need to be applicable by nations in the wider world in order to go with current trends.

The need to review the curricula of library schools

One of the keys to focus is on the curricula of the library schools. The curricula of library schools need surgical overhauled and geared towards preparing students for the 21st century librarians and information professionals taking into account, the skills, the trends and the competencies. The current curricula need to be more geared towards information and system management to strengthen students' knowledge in ICT in addition to have a solid foundation in library science. The present curricula for the Bachelor degree in library science especially in developing countries need to be beefed up and strengthened further in the elective courses with more credit units to enable the graduate function effectively and efficiently in the discipline.

How do the library schools prepare their students for this universal market? The strong belief is that our library school has no other choice than to change now because it can no longer be business as usual. (Daniel, 2012) Posit that in the unfolding scenario, it is important to emphasize the need to prepare the 21st century library and information professionals, because not to prepare is to prepare to fail. It is mandatory on school libraries to revitalize the profession to take up the 21st century role.

Space management in libraries

Library as a space refers to the study of libraries as built environments including their cultural, geographical, and historical contexts, as well as their representative properties as social, political and informational space. (Buchaman, 2007) Describe library place as: Physical entities where a complex mix of activities, processes, actions, and performances occur on a daily basis. (Abdullahi, 2016) Added that we know that they acquire an ever-changing array of cultural resources for public use.... Accordingly, a wide variety of people (users of all kinds) visit libraries, bringing their individual values, beliefs, expectations, assumptions, daily practices, and cultural awareness. How does this complicated set of characteristics, including elements

from the personal, the private, the public, the physical, the intellectual, and the cultural, coalesce into the space or place we call the library. The libraries proposed to manage its space in the light of 21st century dynamics. It highlighted strategies for meeting users' needs and expectations using the notion of library space. Libraries are applying the concept of learning space to re-adjusting its services in line with the 21st century dynamics in education. (Saleh, 2016) "pose that space saving and management technology has made it easier to store very large information in a very small and easy to bear on compact disk and microchips, technology has given another score on revitalization of libraries. Large volumes of text and reference materials such as encyclopedia are stored on those media to save library space." The concept of learning landscapes has become ubiquitous in any sector of education, encouraging networks of 'discovery, and discourse between students, faculty, staff, and a wider community', with a clear recognition that libraries need to use space more effectively as well as efficiently. The deployment of technological tools ascertains the progress in libraries space management, whereby information centers, information service providers and managers, which are librarians, have progressively transformed their information systems and services to provide additional apart from the traditional approaches, by digitized information and online services of all sorts in real time at 24/7 running to meet the information needs and expectations of their teaming customers remotely. Library space management inspired by the following philosophy in revitalizing libraries space is guided by:

- Library as a learning common

- Library as scholarly common

Enhance accessing to information

There is a rapidly expanding stock of scientific knowledge. Yet access to this pool of knowledge is often required by governments, institutions and organizations for enhancing and sustaining effective access to information. The benefit of ICT enhanced access to information resources and services. Libraries can expose its users to a much larger collection than it can be housed physically, because users can access information remotely. The Internet represents the application of varieties of software platforms, resources, and services which enable information access in dual modes (physical/direct and remote) regardless of the time of need. (Jimba, 2016) Added that these evolving Information Technology gadgets which enable access to information resources through new platforms such as iPads, e-readers, smartphones and personal computers. More importantly however, physical location is no longer a necessary prerequisite for access and use. Thus in the digital age, the library is now defined not by the number of books held in the collection, but by how electronic resources can be accessed across platforms and from remote locations. Digital technologies allow users to access to information without being

physically available in the library and this has revitalized libraries to the fact that information can be accessed 24/7 digitally regardless of physical wall boundaries.

Changing libraries through enhanced access, Grouping the entire matters hence, we can say that as the world is dynamic as changes occur time to time likewise, "Change has occurred in Libraries" that is to say Technology has revitalized libraries, librarianship and library information science education around the whole world. If libraries and librarians want to be relevant in the 21ˢᵗ century, repositioning libraries must begin with how they relate to and provide access to information resources for their changed users.

The explosive information revolution has placed information at people's finger tips. A click at a button on the computer and smart phones can unearth enormous amount of information. In such a scenario, the tendency is to rely on self rather than the librarian in the search of information. If information can be obtaining so effortlessly, why should user want to come into a library instead of obtaining same at home or in the convenience of an office. In a nutshell, we should look forward to solving our prospect users' problems in the near future. Finally, (Buckland, 1989) maintains that the major role of library services is facilitating access to information resources. Every other service rendered by the library is considered as secondary. So the question poses here – what librarians need to do to remain relevant in revitalizing libraries.

First, we must acquaint ourselves with technology and accept digital libraries that house e-formats as what will redefine the future libraries. In trying to revitalize the traditional concept of a library as a physical building, any user that need to access information resources and services must make their self-available in the library. We must embrace the fact that the information resources cautiously guard can no longer be confined in printed materials accessible only in a single, physical location, but from a web-based platform which provides access to as many people as would require the service which can be accessed 24/7 digitally regardless of physical wall boundaries.

Secondly, – the next generation of libraries will be hosted on the evolving technology of the internet. Unfortunately, this technology is not defined wholly by people who share vision of access. To be part of this revitalization, librarians must take special interest in how this technology is developing and ensure that we make inputs to the process.

Thirdly, users are no longer patient enough to wait for information. They need urgent information. If we cannot provide them with up-to-date and accurate information, then we run the risk of irrelevance in our profession. This results in an unfortunate reality whereby pretenders are hanging just across the corner to take over the profession image.

Fourthly, the curriculum of library training requires a surgical overhaul. All Academics,

professors, wanting to keep their jobs and prestige are woefully failing to reinvent themselves and the curriculum of instruction.

We need to focus and look forwards at how we can enhance access to the library. To do this involves a simple skill to monitor changing evolutions in technology and societal habits. The concept of a learning hub has been implemented with the library providing access to digital formats through the internet and making the reading space much more relaxed and hospitable. Not only so, the library has become a hotspot where readers can connect to the web across different technological platforms.

To round it up therefore, we owe this profession a supreme duty to understand that things have changed, and that, very drastically too. This understanding is what will change the way we offer our services and how we reinvent ourselves to remain relevant in this crowded world of information provision and use. Our job profile must now be to provide access to information resources using the digital platform.

Jimba recommended that, 'Information is Power'. "Nobody gives up power easily". Librarians must not be the exception. If Libraries and librarianship are the holders of information, then we are the holders of power. In the game of power, if you lose, you're never going to gain it again. We don't need to look forward to a day when librarians will have lost power and their prime position taken over by those who do not understand the basics of cataloging and classification.

Revitalization of libraries with modern innovative services that are necessary to bring libraries to the users to encourage independent learning and lifelong education, and ways they could be incorporated into the services delivery of our libraries as a way of repositioning libraries in the whole world.

Conclusion

It concluded that revitalization of libraries with modern innovative services that are necessary to bring libraries to the users to encourage independent learning and lifelong education would help schools libraries to provide effective service delivery to its users. School libraries need to revitalize their services by transforming the way information is provided to users for enhanced service delivery.

Way forward

School libraries should be equipped with high class technology to provide and compete with other libraries globally and they should provide resources and equipment that would be user friendly to all categories of students irrespective of their background.

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Compilation of an Electronic Metadata Index (EMI) based on the Newspaper Articles specific to the Library & Information Science (LIS) field in Sri Lanka during 2011-2021 (An ongoing project result presentation)

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Abstract

This research article is aimed at socializing the results of a project that has been launched to compile articles published in public newspapers on the library service in Sri Lanka during the period 2011-2021 and to launch an electronic metadata index accordingly. The general objective of this study was to compile an EMI based on the existing news articles of LIS. Other specific objectives of the study were to identify the diversity (Year, Language, Subject, Type of Library) of the news articles which has been published in the newspapers related to the LIS in the Sri Lankan context during the past 10 years (2011-2021) to examine the contribution of the library staff in compiling newspaper articles related to the LIS in Sri Lanka and to examine the contribution of the general society in compiling newspaper articles related to the LIS in Sri Lanka. This research paper, which is based on a descriptive research methodology, reviews the progress of the above project currently in operation and discusses the future forecasts that may be made. Google has created an Electronic Meta-data Index based on the basic tools of Google form and Google spreadsheet in the Google Drive space, which in the future will allow researchers to quickly obtain the information they need through this project. The results of this paper will be helpful to researchers who need to use that data to make predictions is briefly outlined in this research paper

Keywords: *Newspaper articles, Electronic Metadata Indexing (EMI), Library & Information Science (LIS), Sri Lanka, LIS Projects, Indexing*

Introduction

The origins and evolution of the library service go back to the days when man created the art of writing to express his ideas (Kumar, 1997). The resulting literature is very important for the progress and stability of the library service, as well as for decision making and administration (Hornby, 2010). Among that literature, the newspaper occupies a unique place. Among that literature, Journalism has a unique place.

With the advent of printing in Sri Lanka, newspapers play a pivotal role in information communication. Daily, weekend, and periodical newspapers are published in the official languages (Sinhala & Tamil) as well as in English. Among those newspapers published in the above manner, it can see some of the articles related to the library service in Sri Lanka. There are opportunities to base those articles on primary sources in an experimental study. However, it is not observed that any national institution has a scientifically organized collection of news articles related to the library service (ILLINOIS, 2021).

The electronic meta-data index can now be identified as an electronic medium that facilitates the easy access of information to users (Access Corporate Headquarters, 2021). This allows a researcher to easily search through the keywords in a database related to a selected subject and easily retrieve the required information. Finding the information someone needs in a newspaper is a bit more difficult than finding information in another information source. Therefore, this meta-data index will be of great help to anyone looking for newspaper articles published in Sri Lanka on the subject of libraries in the future. In an effort to fill that void, the researchers attempt to identify the diversity of the news articles which have been published in the Sri Lankan newspapers related to the LIS and compile an Electronic Metadata Index (EMI) for them based on those existing news articles. Therefore, this study would be most significant about this topic. Therefore, the following research objectives are intended to facilitate research in accordance with the above research topic.

Research objectives

The general objective of this study was to compile an EI based on the existing news articles of LIS. Other specific objectives of the study were;

- To identify the diversity (Year, Language, Subject, Type of Library) of the news articles which have been published in the newspapers related to the LIS in the Sri Lankan context during the past 10 years (2011-2021).

- To examine the contribution of the library staff in compiling newspaper articles related to the LIS in Sri Lanka.

- To examine the contribution of the general society in compiling newspaper articles related to the LIS in Sri Lanka.

Research methodology

According to Tharenou (2007) descriptive studies are those undertaken to describe the characteristics of variables in a situation. Therefore, the descriptive research methodology was used to conduct this research. It was primarily able to collect about 250 LIS related newspaper articles from both print and electronic newspapers. Basic metadata of those articles such as date published, name of the newspaper, reporter, other contributors, language of the article, type of the Library, headings, context, Subject headings according to the Cataloguing Manual AACR-2R (Sehgal, R.L, 1993) with subject class according to the Dewey Decimal Classification and Relative Index, 23rd ed (DDC, 2010) and summary of the whole article were extracted from those existing news clips. That metadata is double-checked and entered into the electronic spreadsheet using the customized Google Form (https://forms.gle/8q39nG6q1VAp2RLh6) as

main data entering tools. The auto-generated report is used to demonstrate the diversity and the updated spreadsheet is used for retrieval purposes.

Results

This project, which was launched to consolidate newspaper articles unique to the Library Service of Sri Lanka and preserve them for future use, is still in operation. It is possible to make a number of predictions in the future using that electronic meta-data index. It has the ability to analyze and present the results of those predictions in the form of graphs and tables as shown below.
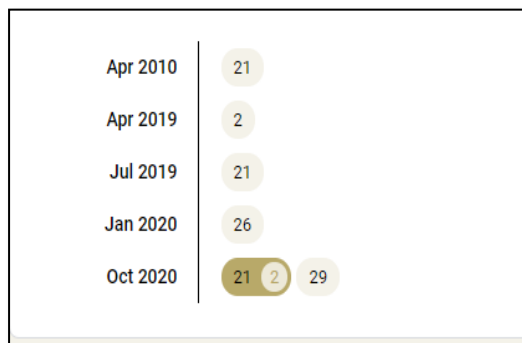
Graph 4 Time wise distribution of News Articles
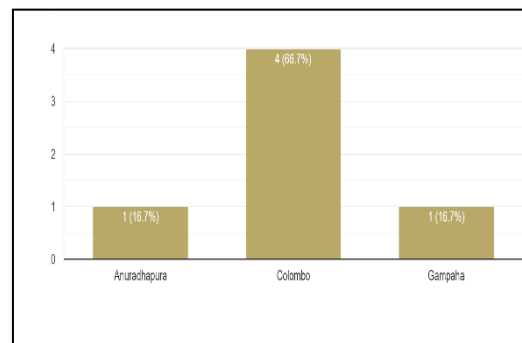
Graph 3 Contributors' Location wise distribution of News Articles
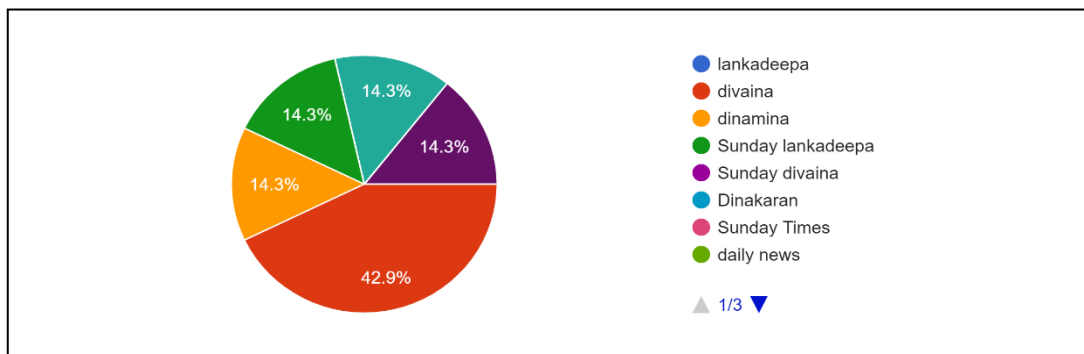
Graph 2 Newspaper wise distribution of News Articles
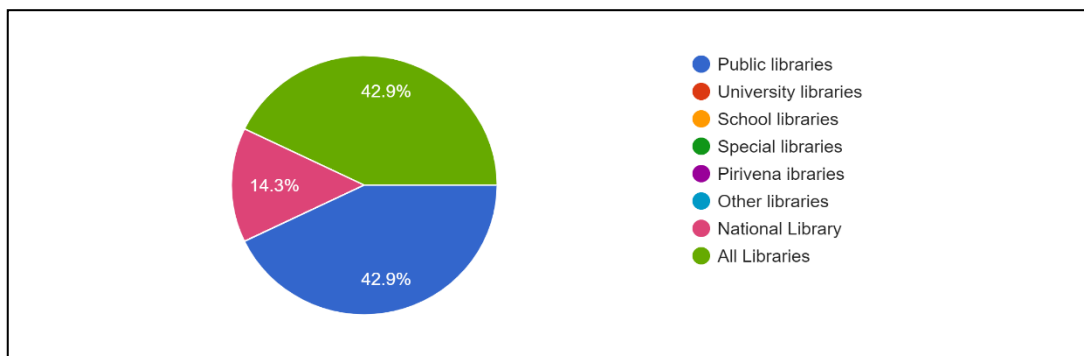
Graph 1 Library wise distribution of News Articles
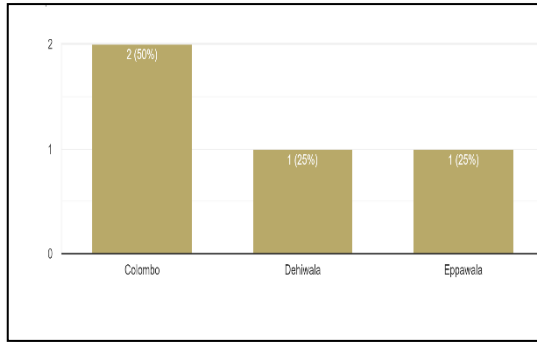
Graph 6 Reporters' Location wise distribution of News Articles
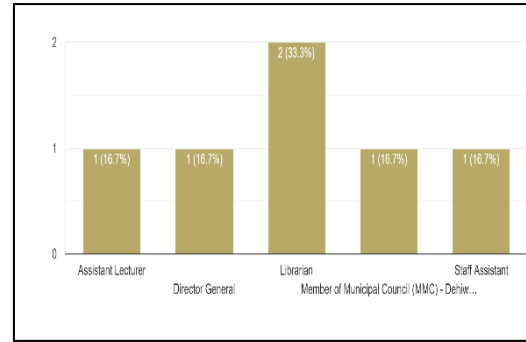
Graph 7 Contributors' Profession wise distribution of News Articles
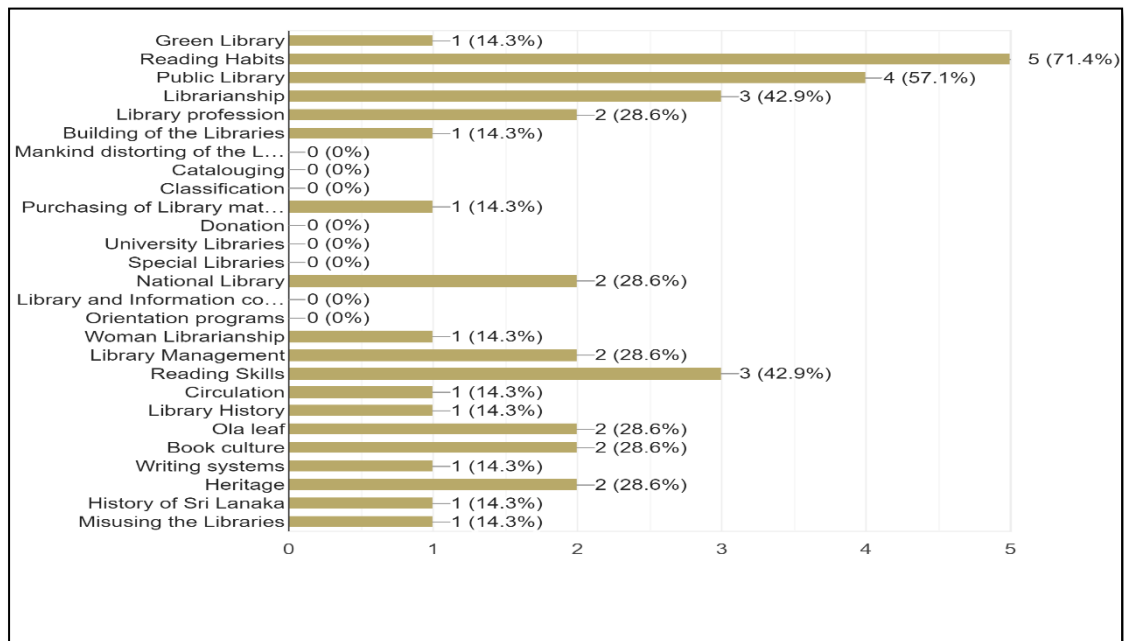
Graph 5 Keyword wise distribution of News Articles

Graph 8   World cloud of News Article

Discussion

If a database is created in such a way that bibliographic information of all library-related articles published in a selected period in Sri Lanka can be obtained in one place, it will be a useful source for researchers on that subject. The ability to provide such a facility is a unique feature of this project.

Conclusion

This study was primarily intended to review the current state of the electronic meta-data index relevant to the library subject currently in operation. At present, a limited number of newspaper articles have been input into the relevant database and the researchers assume that it will be more efficient once all the relevant newspaper articles are included in the database.

Future implication

Researchers believe that this will lead to a number of specialized research opportunities in the future, and we would like to point out opportunities to update the bibliographic information in this database so that it can be accessed through more advanced technologies.

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Impact of public libraries with reference to public library at tenkasi, tamil nadu, india - a study

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Abstract

This study deals with the impact of the public library at Tenkasi. It will have a strategic role in knowledge-intensive industries like digital media. They will also be mainstays of community-based cultural planning and development. The amount of information available will grow, and much of it will be of questionable value and accuracy. Public libraries will play an increasingly significant role in the literacy of the twenty-first century that enable people to select, assess and use the information that will best meet their needs public libraries are increasingly seeing themselves as playing an important role in community development

Key words: *Public libraries, Demographic profile, Use Satisfaction, Tenkasi*

Introduction

Public library is a social organization which is established on the thought of democracy and it is an institution for the people, by the people and of the people. S.R. Ranganathan defined it as a library owned and maintained by the public of its area for the socialization of its books and kindred materials for free service to the people of the area. Librarians Glossary defines public library as a library provided wholly or partly from public funds, and the use of which is not restricted to any class of persons in the community but is freely available to all. Encyclopedia of Library and Information Science defines that Public Library is a public institution, supported by taxation, one that opens its collections, facilities and services; with distinction to all students it always strives to meet the informational, educational and recreational needs of the community by providing collection and services. Maximum utilization of library resources and services by the users is the main motive of a public library. Public libraries cater to needs of all sectors irrespective of age sex occupations social or economic status. Public library serves the public.

Public Libraries have always been at the heart of the communities they serve. They are accessible and safe spaces providing access to huge resources of information and knowledge The primary purpose of the public library is to provide resources and services in a variety of media to meet the needs of individuals and groups for education, information and personal development including recreation and leisure.

Services and Programmers of Public Library

The following are the main services and programmers

- Lending service

- Reference Service

- Audio Video Service

- Reprographic Service

- Encouraging every educated person to become a member of the library.

- Providing basic amenities to libraries.

- Construction of new library buildings.

- Modernizing the libraries by introducing the latest techniques.

Functions of public library

- Collection and preservation of knowledge.

- Useful in basic education.

- Assistance in research work.

- Helpful in self-study.

- Help in perfect personality Development

Review of Literature

Aharony, Noa (2010) studied the use of Twitter in public and academic libraries. Micro blogging is a relatively new phenomenon in online social networking that has become increasingly prevalent in the last few years. This study explores the use of Twitter in public and academic libraries to understand micro blogging patterns. Analysis of the tweets was conducted in two phases: (1) statistical descriptive analysis and (2) content analysis. The research findings show there are some differences between public and academic libraries, including the number of tweets, linguistic differences, and content. However, it seems that using Twitter in libraries enables both kinds of libraries to broadcast and share information about their activities, opinions, status, and professional interests. The research findings are relevant for librarians and information scientists who wish to better understand and explore the phenomenon of library

Niekerk, F.V. (2014) in his article entitled, "The Management of information resources for the public library" (contributed to an issue devoted mainly to a National Symposium on Information for all, Cape Town, South Africa, February 1994) discussed the management of information resources to the Cape Provincial Library Service. He outlined informal and formal resources available to its users, and described what it is doing to address the information needs of its students and school children, and of other individuals and groups in the community. He examined the problem areas which may force librarians to amend the service they provide to

address the needs for all sectors of the community. He discussed how to create informal information sources and described formal resources that should be included in every library's stock.

Rajasekhar. A. (2016) in his article entitled, "Towards access to information in rural India" studied rural areas in India characterized by limited land availability, low literacy, inadequate health, sanitary and drinking water facilities. In spite of over five decades of independence, the rural scenario has not changed much and 75 percent of rural people are either manual laborers or artisans. In view of a variety of structural disadvantages (illiteracy, malnutrition and the social complications of caste in Indian Society), there is a need to redesign the traditional public library and its services to deal with the information needs of rural areas

Ravichandran, L. (2017) made a critical study on the status of public libraries in India. Out of 28 states and 7 Union Territories in India, only 17 have enacted public library legislation from 1948 to 2010 and the progress of library legislation is very slow. The authors have provided statistics on public libraries – 30 State Central Libraries, 40 Regional / Divisional Libraries, 364 District Libraries, 4658 City/Town Libraries, 49,758 Villages and altogether there are 54,851 libraries in India. The national per capita expenditure on public libraries is only 0.07 paise and there is no stable financial provision for public libraries either in states or union territories. The public libraries in India have not yet started to use ICT like in other countries. Though the reading habits of the public have changed from print to electronic, the public libraries have yet to start acquiring electronic/digital resources. Finally, the authors concluded saying that central and state governments have responsibility under democratic fabric to strengthen public libraries in India

Objectives of the Study

The study was conducted based on the following objectives:

- To know the frequency and purpose of visit to the Public library

- To measure the satisfaction level of selected respondents

Methodology

Researchers make an attempt to analyze users' satisfaction towards the services of the public library at Tenkasi. It is to identify the demographic profile of respondents, frequency of visit and purpose of visiting the library. A sample consisting of 125 respondents using public library situated at No. 13, main road, Tenkasi 627811 was selected by adopting simple random sampling technique. The data were collected with the help of a structured interview schedule prepared in a very simple language.

Table 1: Gender of Respondents

Gender	Number of Respondents	
	No	%
Male	74	59.2
Female	51	40.8
Total	125	100

(Source: Primary Data)
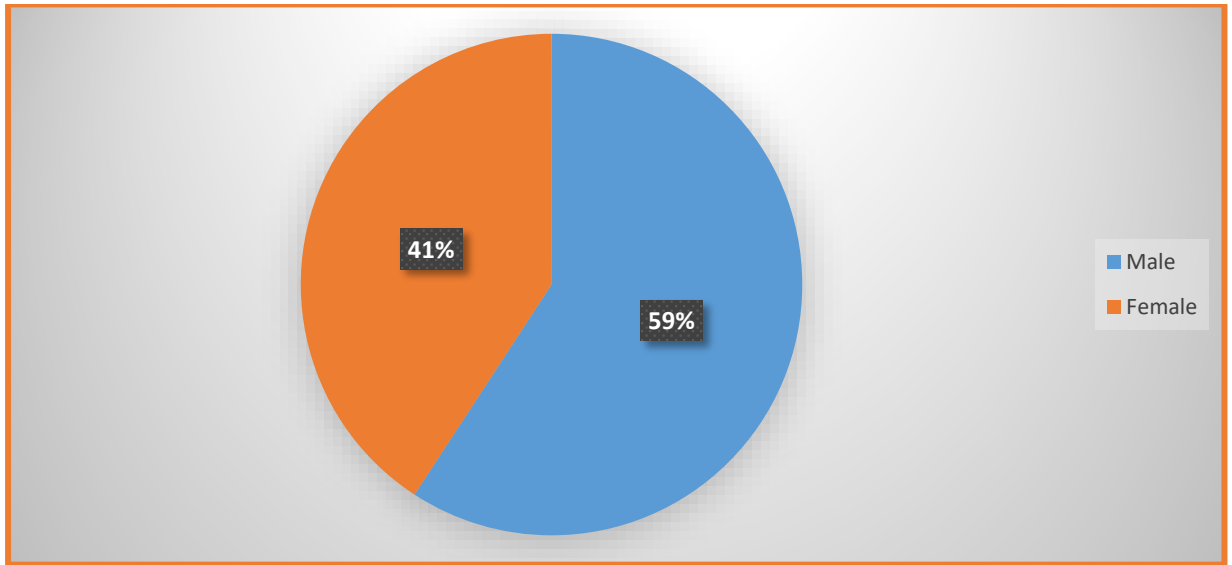
Fig 1: Gender of Respondents

Table 1 shows the gender wise distribution of respondents, which shows that 74 (59.2%) respondents were male and 51 (40.80%) respondents were female.

Table 2:Age of Respondents

Age of Respondents	Number of Respondents	
	No	%
Below - 25	18	14.40
25 - 40	32	25.60
40 - 60	45	36.00
Above 60	30	24.00
Total	125	100

Fig 2: Age of Respondents
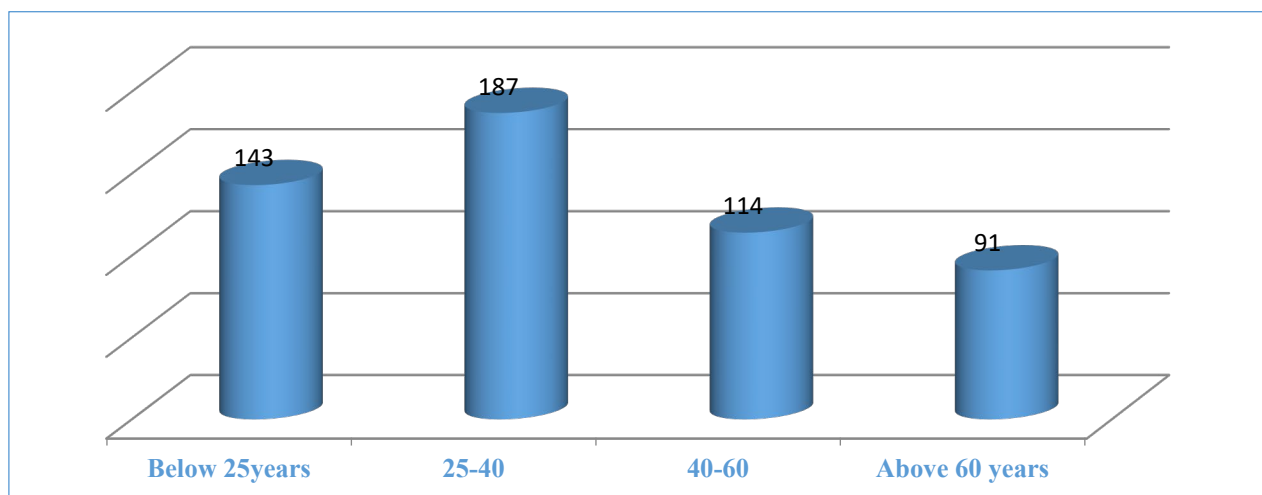
Table 2 presents the data related to the age of respondents. It shows that 18 respondents (14.40%) fall in the age group of below 25 years. 32 respondents (25.60%) fell in the age group of 2-40 years, whereas 45 respondents (36%) were in the age group of 40-60 years. The table clearly indicates that there are 30 respondents (24%) in the age group of above 60 years.

Table 3: Educational Qualifications of Respondents

Educational qualifications	Number of Respondents	
	No	%
Up to higher secondary	19	15.20
U.G	69	55.20
P.G	37	29.60
Total	125	100

(Source: Primary Data)
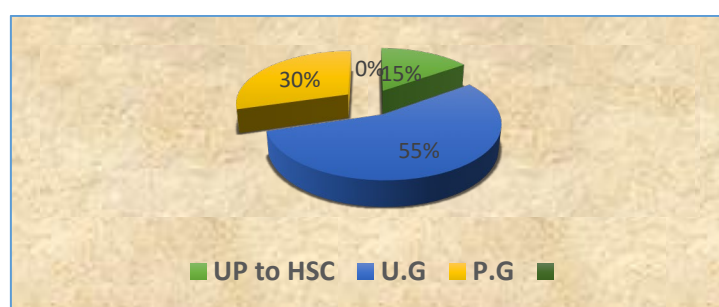
Fig 3 Educational Qualifications of Respondents

Table 3 displays that out of 125 respondents, maximum numbers of respondents, i.e.69 representing 55.20 per cent of total respondents, were graduates followed by 37 respondents

(29.60 %) were post graduates, and 19 respondents (15.20 %) are up to higher secondary.

Table 4 Frequency of Library Visit

Frequency of Visit	Number of Respondents	
	No	%
Daily	19	15.20
Once in two days	22	17.60
Twice a week	37	29.60
Once a week	21	16.80
Once a month	15	12.00
Rarely	11	8.80
Total	125	100

(Source: Primary Data)

Fig 4: Frequency of Library Visit

Table & Figure 4 shows the frequency of visit to the public library by the selected respondents. The data from the above figure clearly depicts that majority of the respondents 37(29.60%) visit the library Twice a week, followed by once in two days 11 (17.60%), once in a week 15 (12%) and daily 19 (15.20%).

Table 5: Purpose of Visiting the Library by the Respondents

Purpose of Visiting the Library	Number of Respondents	
	No	%
Borrow/return books	15	12.00
Read books / magazines	23	18.40
Read newspapers	41	32.80
To update the current information	25	20.00
Obtain information needed for jobs/career	12	9.60
To know the social activities	9	7.20
Total	125	100
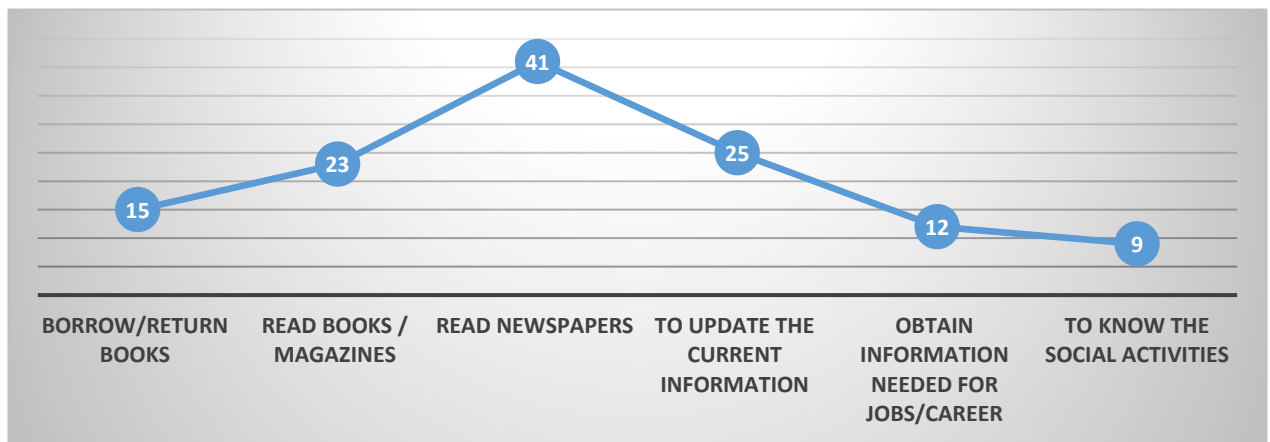
Fig 5: Purpose of Visiting the Library by the Respondents

Above table 5 shows that the 41 (32.80%) respondents are visiting the public libraries for the purpose of reading the newspaper. 25(20%) respondents mentioned the purpose of updating the current information. Borrow/Return books in the public libraries was mentioned by 15 (12%) of users and 12 (9.60%) users are used to obtain information needed for jobs/career in public libraries. It is concluded that the very less 9 (7.2%) respondents are used public libraries purposely to know the social activities.

Table 6: Users Satisfaction level regarding Services provided by the Public library

Variables	Satisfaction level				Pearson's Chi-square	"P" Value
	High	Medium	Low	WAS		
Circulation Services	71 (58.60)	42 (33.60)	12 (9.60)	3.944	2.983	0.0328
Reservation Services	46 (36.80)	49 (39.20)	30 (24.00)	3.256	3.283	0.0285
Periodical Services	68 (54.40)	47 (37.60)	10 (8.00)	3.928	2.850	0.0251
Current Awareness Service	67 (53.60)	51 (40.80)	7 (5.60)	3.961	2.510	0.0278
Reprography Service	42 (33.60)	39 (31.20)	44 (35.20)	2.968	2.781	0.0178
New arrivals	60 (48.00)	43 (34.40)	22 (17.60)	3.608	3.105	0.0189
Drinking water and restroom	47 (37.60)	54 (43.20)	24 (19.20)	3.368	2.518	0.0215
Browsing facilities	39 (31.20)	28 (22.40)	58 (46.40)	2.696	2.147	0.0208
Photo Copying	51 (40.80)	38 (30.40)	36 (28.80)	3.240	3.283	0.0251
Assistance from Staff	62 (49.60)	48 (38.40)	15 (12.00)	3.752	3.252	0.0328
Maintenance of library	57 (45.60)	49 (39.20)	19 (15.20)	3.608	3.074	0.0325
Rules and regulations	49 (39.20)	38 (30.40)	38 (30.40)	3.176	2.750	0.0251
Working hour	69 (55.20)	48 (38.40)	8 (6.40)	3.976	2.518	0.0308
Locality of library	59 (47.20)	37 (29.60)	29 (23.20)	3.481	2.510	0.0275
Environment of library	53 (42.20)	46 (36.80)	26 (20.80)	3.432	2.425	0.0212

The above table 6 divulges the satisfaction level of users regarding services of the public library at Tenkasi. Maximum of 71(58.60%) respondents were highly satisfied with the "Circulation Services" of the library, followed by 69 (55.20%) were satisfied with working hours of the public library and 68 (54.40%) were satisfied with periodical services of the library. To test the Null-hypothesis that there is no significant relationship between the demographic profile of the respondents and their level

of satisfaction, a Pearson's chi-square test was applied. The results indicated that 'P' Value for all the variables is less than the confidence level at 5%.

Findings of the study

- It is found that maximum respondents visit twice a week to the public library

- Maximum users visit the public library to read the newspapers and to update the current information

- The users of the public library are highly satisfied with Circulation service and working hours.

- The respondents expressed medium level satisfaction with Drinking water and rest room of the library

- The users have low level satisfaction with Browsing facilities and rules and regulation of the library.

Conclusion

A fundamental principle of the public library is that its facilities must be available to all and not focused on one group in the community to the elimination of others. Provision should be made to ensure services are equally available to minority groups who for some reason are not able to use the mainstream services, Public libraries are locally based services for the benefit of the local community and should provide community information services. The services and collections they provide should be based on local needs, which should be assessed regularly. The public library should be a key agency in the local community for the collection, preservation and promotion of local culture in all its diversity. This can be achieved in a variety of ways, for example, the maintenance of local history collections, exhibitions, storytelling, publishing of items of local interest and developing interactive programmers on local themes. The public library should provide a wide range of materials in a variety of formats and in sufficient quantity to meet the needs and interests of the community. The culture of the local community and society must be reflected in the resource collection.

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Usage of social media and pro social behaviour of adolescents

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Abstarct

Billions of people around the world use social media to share information and make connections. On a personal level, social media allow people to communicate with friends and family, learn new things, and be entertained. On a professional level, one can use social media to broaden knowledge in a particular field and build professional networks. At social level, social media allow people to have a conversation with friends and society. The increased presence of social media has made a profound impact on the behavior of people in general and specifically it influences the life style of youth at all levels.

Key word: *Library Use, Medical Profesional, Medical Behaviour, Medical adolescents*

Conceptual frame work

Social media are interactive computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. It allows people to share content quickly, efficiently, and in real-time. Many people define social media as apps on their Smartphone or tablet, but the truth is, this communication tool starts with computers. All adolescents are social media pro, they use Facebook, Twitter, Instagram, whatsup, Linkedln and Google plus.

Social media has revolutionized the way people communicate and socialize on the web and at the same time it influences the feelings. Not only does it influence our feelings, it also affects our behavior. Social media affect different people's behavior in different ways, of course, depending upon the age and use of social media. It affects the adolescents' behaviour online and offline, professionally and socially.

Pro social behavior is a voluntary behavior intended to benefit others such as helping, sharing, consoling, comforting, cooperating, and protecting someone from any potential harm. A pro social behavior is relevant to interpersonal relationships and interactions among people as individuals and groups. People, as individuals or as members of a group, have to give a hand to others who are in need.

Significance of the study

Social media have significant impact on the changing scenario of human life. People make use of the social media to learn and communicate personal, social, emotional and moral skills and behaviors. Through social media, people find knowledge resources in

any discipline and share the same. It leads to improve behaviour. The adolescents spend so much of time in social media. People think that social media usage yields the risk of depression, low self-esteem, stress, physical and mental disorders, feeling of isolated and disorientation from learning. At the same time one cannot deny the positive impact of social media on the social behaviour of adolescents. So the investigator wants to know the usage of social media of adolescents and its impact on their social behaviour and to the behaviour if it is pro social or anti social.

Operational definitions

Usage of Social Media
It refers to the usage of computer and cellular phone based applications and tools by the adolescents to acquire, communicate and share information with others.

Pro social behaviour
It refers to the adolescents' disposition to approach, manage, and help other people.

Adolescents
It refers to the students between the ages 14 to18.

OBJECTIVES

- To find out the level of usage of social media and pro social behaviour among adolescents.

- To find out the difference if any in the usage of social media and pro social behaviour among adolescents.

- To find out the relationship between usage of social media and pro social behaviour of adolescents

Hypotheses

- There is no significant difference between male and female, rural and urban area adolescents in their usage of social media.

- There is no significant difference between male and female, rural and urban area adolescents in their pro social behaviour.

- To find out whether there is any significant relationship between usage of social media and pro social behaviour.

Analysis of data

Objective: 1

To find out the level of usage of social media among adolescents.

Table 1: Level of Usage of Social Media Among Adolescents

Variable	Low		Moderate		High	
Usage of social media	N	%	N	%	N	%
	13	13	75	75	12	12

The above table revealed that 13% of adolescents have low, 75 % of them have moderate and 12% of them have high level of usage of social media.

Null hypothesis: 1

There is no significant difference between male and female adolescents in their usage of social media.

Table 2: Difference between Male and Female Adolescents in Their Usage of Social Media

Variable	Category	Count	Mean	S.D	Calculated 't' value	Remarks
usage of social media	Male	50	30.80	3.70	3.019	S
	Female	50	28.56	3.72		

It is inferred from the above table that there is significant difference between male and female adolescents in their usage of social media.

Null hypothesis: 2

There is no significant difference between adolescents from rural and urban area in their usage of social media.

Table 3: Difference between Adolescents from Rural and Urban Area in Their Usage of Social Media

Variable	Category	Count	Mean	S.D	Calculated 't' value	Remarks
Usage of social media	Rural	42	32.49	3.80	2.602	S
	Urban	58	34.51	3.85		

It is inferred from the above table that there is significant difference between adolescents from rural and urban area in their usage of social media.

Objective: 2

To find out the level of pro social behaviour among adolescents.

Table 4: Level of Pro Social Behaviour among Adolescents

Variable	Low		Moderate		High	
Pro social behaviour.	N	%	N	%	N	%
	9	9	72	72	19	19

It is inferred from the above table that 9% of adolescents have low, 72 % of them have moderate and 19% of them have high level of pro social behaviour.

Null hypothesis: 3

There is no significant difference between male and female adolescents in their pro social behaviour.

Table5: Difference between Male and Female Adolescents in Their Pro Social Behaviour

Variable	Category	Count	Mean	S.D	Calculated 't' value	Remarks
Prosocial behaviour.	Male	50	17.92	3.75	0.236	NS
	Female	50	17.76	2.98		

It is inferred from the above table that there is no significant difference between male and female adolescents in their pro social behaviour.

Null hypothesis: 4

There is no significant difference between adolescents from rural and urban area in their pro social behaviour.

Table 6: Difference between Adolescents from Rural and Urban Area in Their Pro Social Behaviour

Variable	Category	Count	Mean	S.D	Calculated 't' value	Remarks
Pro social behaviour.	Rural	42	32.88	3.56	1.986	S
	Urban	58	31.47	3.36		

It is inferred from the above table that there is significant difference between adolescents from rural and urban area in their pro social behaviour.

Null hypothesis: 5

There is no significant correlation between usage of social media and pro social behaviour of adolescents.

Table 7: Correlation between Usage of Social Media and Pro Social Behaviour of Adolescents

Variable	Correlation coefficient
Usage of social media and Pro social behaviour.	0.733

The above table revealed that there is significant correlation between usage of social media and pro social behaviour of adolescents.

Discussion

- Male adolescents are better than female adolescents in their usage of social media. This may be due to the reason that female use social networking sites to make connections and stay in touch with family or friends. Male use social media to gather the information they need to increase their status and to influence others.

- The adolescents from urban area are better than adolescents from rural area in their usage of social media as they may get more opportunities to have an entry Wi-Fi cubs and surf internet, twitter, Google+ and blog even being in their home and in the area where in they live and study.

- The adolescents from rural area are better than adolescents from urban area in their pro social behaviour. This may be the due to the reason that naturally people in rural areas are helpful. In rural area adolescents are taught by their family to help in emergency situations but urban people are afraid to help as they are taught like that.

- There is significant correlation between usage of social media and pro social behaviour of adolescents. This may be due to the reason that the daily use of social media by adolescents has increased so much that it slowly injects some positive and negative components in their behavior.

Conclusion

The impact of social media on people and their behavior is massive which may be predominantly positive, but it must be borne in mind that there may be negative side as well. Social media permits people to understand themselves and others. Unfortunately, the worst or even devastating aspects of social media are mainly on the young or on the very young people who have not yet completed their school education. So it is the duty of the teachers, parents and elders to instruct the adolescents to handle the powerful tool such as the social media positively

so as to acquire develop and make their pro social behaviour as a common practice.

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Impact of Dynamic Capabilities on Perceived Performance Quality in University Libraries of Sri Lanka

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Abstract

User's information-seeking behavior and needs are changing with the innovative socio-economic and technological environments. Users' satisfaction depends on how the services are delivered despite these turbulences in the environments and libraries should develop dynamic capabilities to overcome interruptions due to expected as well as unexpected environmental changes. The purpose of this study is to investigate the dynamic capabilities of the university library environment in Sri Lanka and their impact on the perceived performance quality. A dynamic capability model and a measuring tool for dynamic capabilities (DC) and perceived performance quality (PPQ) of university libraries were formulated with the vigorous process with literature review and tested with a random sample of 93 respondents from state universities of Sri Lanka. The DC was measured with 14 items while PPQ was measured with 12 items formatted according to the 7 points Likert scale. Results of the Pearson correlation indicated that there was a significant positive relationship between perceived dynamic capabilities and perceived performance Quality of the library $r(91) = .27, p = .10$, (2-tailed) significant at 0.01 level. The Spearman correlation also showed the same relationship, $rs(91) = .23, p = .024$, (2-tailed) significant at 0.05 level. Regression results indicated that DC significantly predicted PSQ scores, $B=.19, t(91) = 2.63, p < .010$. DC also explained a significant proportion of variance in PPQ scores, $R^2 = .07, F(1, 91) = 06.96, p < .01$. The residuals (47.81) indicated that more latent factors are associated with PPQ other than the DC. In conclusion, the university library as a dynamic organization needs to sense the market changes, seize the opportunities and rearrange the operations by leveraging resources and capabilities to serve the changing needs of the community. Identifying and developing dynamic capabilities may lead to uplift the performance quality and thereby the service quality. More research is essential to apply the results in the global context.

Keywords: *Dynamic Capabilities, Perceived Service Performance, University libraries, Sri Lanka, DC scale*

Introduction

Organizations need to keep track of their performance, customer satisfaction, and even their competitors (Pakurár et al, 2019). Performances are based on resources and capabilities. University library is an organization that operates in changing environments with innovative technology, changing user behavior and social and economic conditions. Some of these changes such as pandemic situations are unpredictable. In spite of unexpected turbulences, university libraries should face these changes with their resources and capabilities.

Dynamic Capabilities (DC) which are associated with organization's competencies emanated

from resources, support to undertake necessary changes in response to the changes in the environment. They facilitate the adaptation, integration, and configuration of internal and external resources (Teece et al. 199; Alejandro, et al. 2020, Kump et al. 2018). As dynamic organizations, university libraries need to respond to the changing needs of users by innovating their service models to fit to the user expectations. They need to value their working environment to retain the existing users (Julie et al 1998).

Dynamic capability perspective refers to the firm's ability to adapt to the changing environment, its capacity to change, innovate, renew or introduce new services to the market. It is a mechanism by which a firm leverage and accumulate new skills and forces that handle the directions of the organization (Teece et al. 1991; Newbert, 2007; Tecee et al. 1997).

In this scenario, university libraries need to develop their dynamic capabilities to ensure their performance quality as expected. Performance measurement is essential for the library to evaluate whether the objectives of the library are achieved as expected. Various authors have focused differently of the evaluation of performances and as a result many measuring tools have been developed. However many studies show that the performance measures have been used interchangeably with service quality (Kant, & Jaiswal, 2017). In general library performance is initially based on the human dimensions (such as responsiveness, assurance, empathy, and reliability), access to information resources and   Library as a comfortable place for learning (Blixrud, 2003).

Although this important area is well addressed with empirical studies in other sectors, the measuring of dynamic capabilities is not systematically addressed in the university library sector. In practical scenario university libraries in Sri Lanka are implementing dynamic capabilities in their service models, but empirical or conceptual studies   are lacking in the local literature. The purpose of this study is to address this research void.

Objectives

This study attempts to achieve following objectives:

- To measure dynamic capability in university libraries of Sri Lanka

- To measure the perceived performance quality of university libraries of Sri Lanka

- To explore whether there is a significant association between dynamic capabilities and perceived performance quqlity in university libraries of Sri Lanka

Methodology,

The study followed a quantitative method of sample survey through a self-administered questionnaire and correlational analysis was conducted to explore the relationship between key

variables.

Accordingly the key variables associated with dynamic capabilities in academic libraries were identified through the literature review based on the resource-based view and formulated a conceptual model representing sub variables. The model consisted of three sub variables viz. Sensing, Seizing and Transforming capabilities as dimensions. The survey instrument was developed following a vigorous process of scale development (Carpenter, 2017; Zamanzadeh et al. 2015). Accordingly, the questionnaire included 14 survey items to measure dynamic capabilities and 12 survey items to measure perceived performance quqlity of the university library (figure 01).
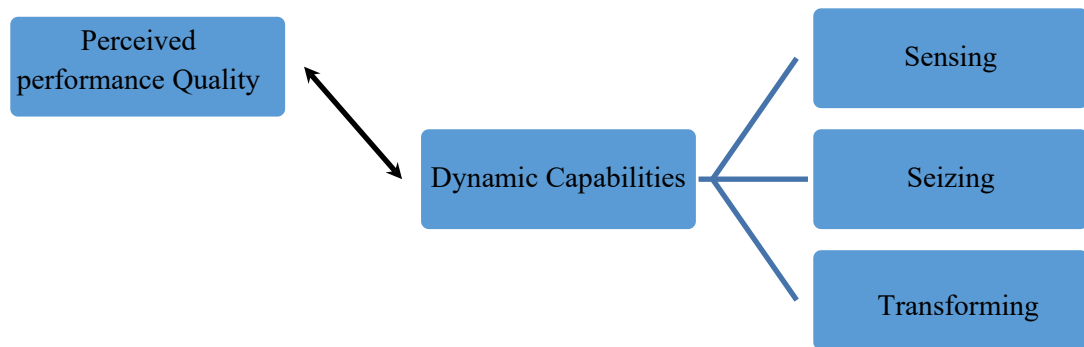
Figure 1 Dynamic Capability and Perceived Performance Quality model

Data collection

A sample of 96 library professionals was selected on random basis from state university libraries in Sri Lanka. The link to the questionnaire designed through Google forms was emailed to the library professionals of selected universities in June 2021 and respondents were asked to fill in the form within two week time. Collected data were analyzed using SPSS 25th version with correlation analysis and linear regression.

Results

Responses from 93 respondents were analyzed with descriptive and inferential techniques. Factor analysis verified the factor structure expected and each item verified the required reliability level (Cronbach's Alpha). Average value of responses was calculated by summating the responded score against each respondent and dividing by the number of items of the variable and considered for analysis.

Results of the Pearson correlation indicated that there was a significant positive relationship between perceived dynamic capabilities and perceived performance quqlity of the library r(91) = .27, p = .10, (2-tailed) significant at 0.01 level. The Spearman correlation showed the same relationship, rs(91) = .23, p = .024, (2-tailed) significant at 0.05 level (table 01).

Table 01 - Correlation between variables DC and PPQ

Correlations			DCAVE	PSPAVE
DCAVE		Pearson Correlation	1	.267**
		Sig. (2-tailed)		.010
		Sum of Squares and Cross-products	92.950	18.438
		Covariance	1.010	.200
		N	93	93
PSPAVE		Pearson Correlation	.267**	1
		Sig. (2-tailed)	.010	
		Sum of Squares and Cross-products	18.438	51.471
		Covariance	.200	.559
		N	93	93
**. Correlation is significant at the 0.01 level (2-tailed).				

Correlations			DCAVE	PSPAVE
Spearman's rho	DCAVE	Correlation Coefficient	1.000	.234*
		Sig. (2-tailed)	.	.024
		N	93	93
	PSPAVE	Correlation Coefficient	.234*	1.000
		Sig. (2-tailed)	.024	.
		N	93	93
*. Correlation is significant at the 0.05 level (2-tailed).				

Regression results indicated that DC significantly predicted PSP scores, B=.19, $t(91) = 2.63$, $p < .010$. DC also explained a significant proportion of variance in PSP scores, $R^2 = .07$, $F(1, 91) = 06.96$, $p < .01$.

Discussion, Conclusion and Recommendations

The purpose of the study was to develop a dynamic capability measuring scale for university libraries in Sri Lanka, test the model empirically and explore the relationship of the DC with the perceived performance quality of the university library environment.

The results indicated that there is a positive relationship between two variables. However this relationship not strong (r=.267). This means that perceived service performance shares 26.7 %

of the variance.

The study DC has a significant impact on the service performance of the university library. Therefore decision makers of university libraries should consider the developing of DC in their libraries.

This research has several limitations. First this conclusion was based on the local study in the government sector university libraries. Second performance measures were based on 12 key factors. More research is essential with broader perspective to generalize the findings in global context.

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A Study on Contribution of Open Access Journals on Robotics in Directory of Open Access Journals (DOAJ) Platform

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Abstract

Open access movement enhances the researchers to access good number of resources. The freely available content has created a great impact on accessing many journal articles in various subject disciplines and enriches the academic community with widespread knowledge. The present study attempts to analyze the open access journals and articles listed in the Directory of Open Access journals (DOAJ) on Robotics. The study results that 49 journals and 12311 articles are listed in DOAJ as on 15 September 2021. 34 journals have articles on Technology, 13 on Science. 22% journals are not charging any article processing charges (APC). A majority of 22 journals have CC BY license. MDPI AG are the most predominant publishers, United Kingdom is the most productive country (8) in Robotics and English is the predominant language of publication (86.49%). 45% journals in Robotics in DOAJ follow blind Review process followed by 14% journals follows Double blind review process. The journal "Sensors" has published 1069 articles. A majority of 6266 journal articles are published in DOAJ in the year 2021.

Keywords: *Directory of Open Access Journals, Open Access, Robotics, Research management*

Introduction

Open access movement is a boon for the academic community which provides unrestricted, free online access to articles and journals which permit the users to read, download, print, copy, distribute and link to the articles without any financial, lawful and technological barriers. The main objective of open access is to project the intellectual output of the researchers, academicians and institutions more visible, accessible, searchable by any of the potential users over the internet. Open access also eliminates the price barriers such as subscription, licensing and authorization barriers such as copyright and intellectual rights.

Directory of Open Access Journals is a community curated comprehensive online directory which indexes and provide access to peer reviewed journals in high quality. All kind of data is open to users at free of cost and contains 16500 peer reviewed open access journals covering all the domains of science, arts, humanities, social sciences and technology. It is financially supported by many libraries, publishers and academic institutions.

Review of Literature

Walter (2011) attempted to study the attributes of 663 Open Access (OA) journals in biology, computer science, economics, history, medicine, and psychology and resulted that 29% of Open

Access journals charge publication fees. Moreover, OA journals in the fields of biology and medicine are larger than that of the others and the OA journal has the high degree of influence by a few key publishers and journals

Loan, Rather and Shah (2008) conducted a study on Indian contribution to open access literature based on DOAJ and open DOAR and resulted that the position of India with respect to number of journals in the Directory of Open Access Journals (DOAJ) is seventh across the world.

Scope and Objective

The study focuses on the journals on Robotics archived in the Directory of Open Access Journals as on 15 September 2021. The major objective of the study is as follows

- To find out the number of journals and Journal Articles available on Robotics in DOAJ

- To figure out the year wise contribution of journals added on Robotics in DOAJ

- To assess the distribution of Journals as per APC Charges

- To figure out the distribution of Journals as per Licensing in DOAJ

- To analyze the subject category of journals in DOAJ

- To find out the language of journals on Robotics in DOAJ

- To trace the Publisher distribution of Journals on Robotics

Methodology

Directory of Open Access Journals (DOAJ) Platform available at www.doaj.org (as on 15th September 2021) has been used as the data source. A total of 49 journals extracted on Robotics with the relevant metadata such as title of the journal, journal URL, ISSN, country of publication, language, year added in DOAJ, APC charges of journals, publisher, Journal license and license attributes were incorporated in Ms Excel spreadsheet and analyzed to achieve the objectives of the study.

Results and Discussion

Journal vs articles

Table 1: Journal Vs Articles

S.No	Type of Source	NOS
	Journals	49
	Articles	12,311

Table 1 shows that 49 journals and 12,311 journal articles on Robotics are listed in DOAJ.

Date ofaddition

Table 2: Year wise Addition of Journals

YEAR	NO OF JOURNALS	PERCENTAGE (%)
2021	6	12
2020	7	14
2019	6	12
2018	7	14
2017	6	12
2016	4	8
2015	7	14
2014	1	2
2013	1	2
2011	1	2
2010	1	2
2008	2	4
	49	100

Table 2 shows that a majority of 14 Robotics journals are added to DOAJ each in 2020, 2018 and 2015 each, followed by 12 journals each in 2017, 2019 and 2021. 8 journals in 2016 and 4 journals in 2018. While 2 journals were added each in 2019 and 2017, 5 journals were added in 2016. Even one journal is added in the year 2014, 2012, 2005 and 2003.

Article processing charges
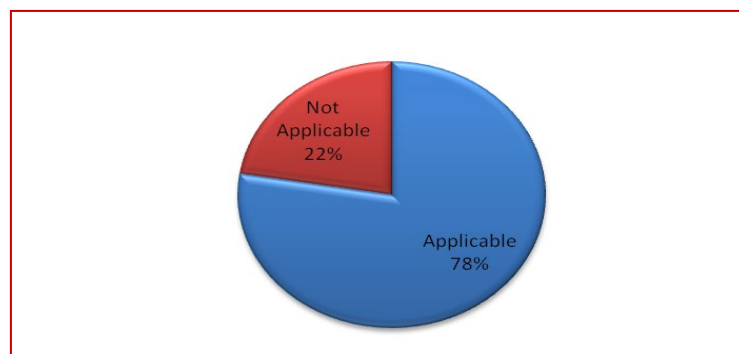
Figure 1: Applicability of Article Processing Charge for Journals

Figure 1 depicts that majority of (22%) journals don't charge any article processing charges

while 78% journals require payments for publications.

Journal license pattern
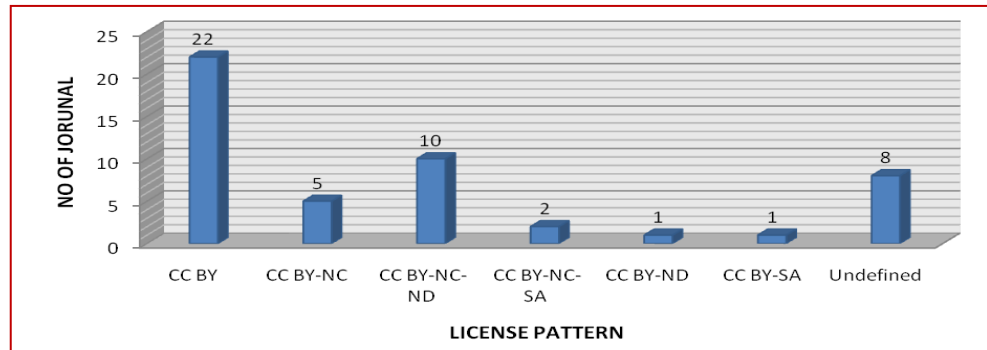
Figure 3: Robotics Journals Licensing Pattern in DOAJ

Figure 2 shows Licensing a journal with a Creative Commons (CC) License is an optimum way of showing exactly the type of attribution of journal in Open Access. It clearly reveals that a majority of 22 journals have CC BY license followed by 10 journals with CC BY-NC-ND and 5 with CC BY-NC. Remaining 8 journals comes under undefined category.

Subjectswise distribution
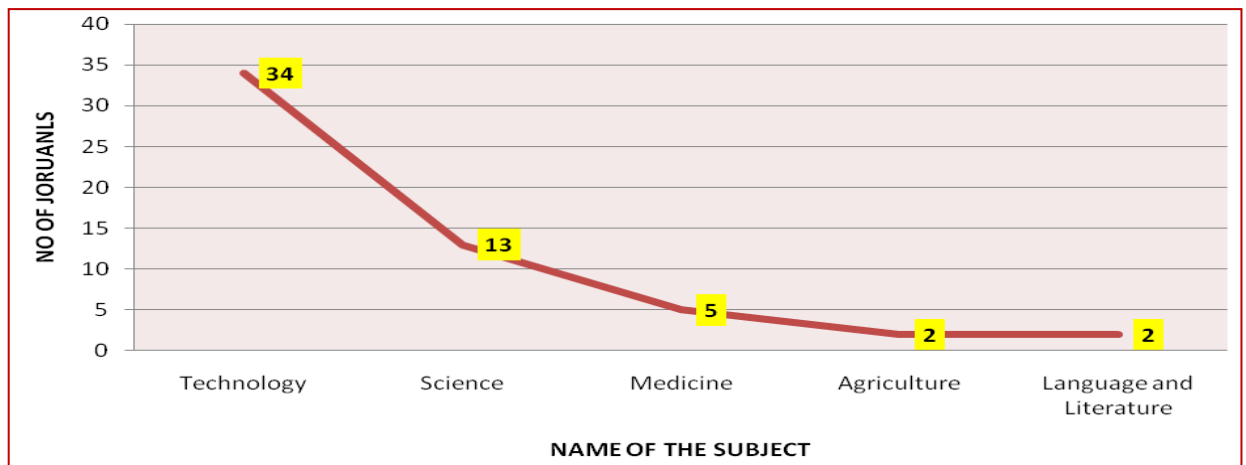
Figure 4: Subject wise Inclusion of Journals

Figure 4 shows that out of 34 journals on Technology, 13 journals have articles on Science, followed by Medicine (5), Agriculture and Language and Literature (2).

Languageswise journals
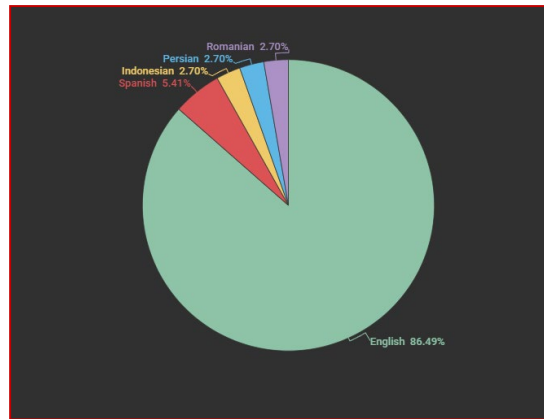
Figure 5: Languages Wise Journals

Figure 5 shows that out of 49 journals on Robotics listed in DOAJ, a majority of 86.49% journals are in English followed by 5.41% journals in Spanish and 2.70% journals each in Indonesian, Persian and Romanian.

Predominant publishers
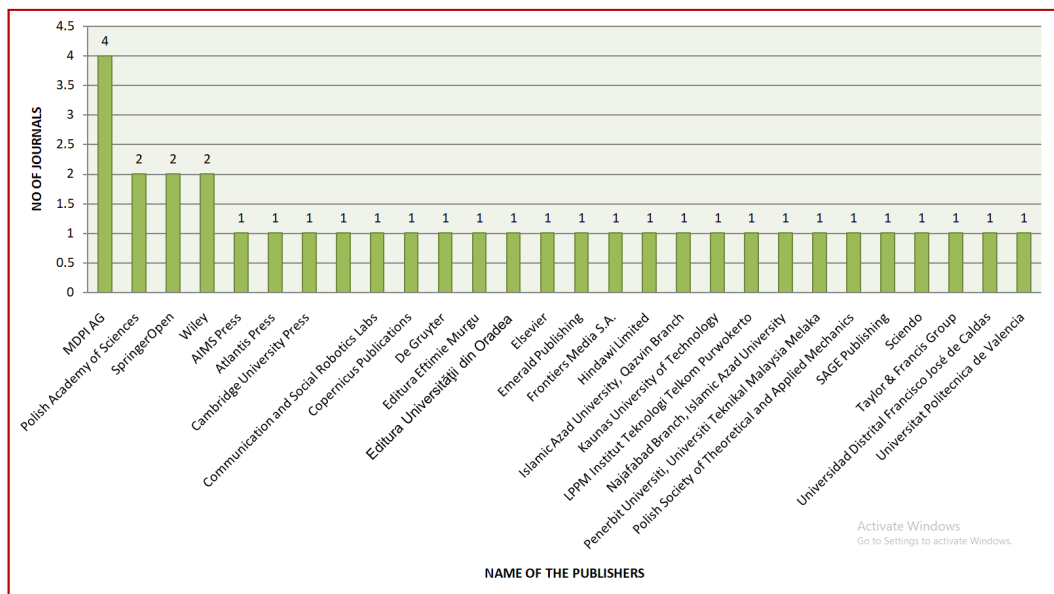
Figure 6: Predominant Publishers on Robotics in DOAJ

Figure 6 shows the predominant publishers on Artificial Intelligence in DOAJ. It is evident that MDPI AG are the predominant publishers with 4 journals followed by Polish Academy of Sciences, SpringerOpen and Wiley publishes (2) each. Remaining other publishers publish single journals each.

Productive countries
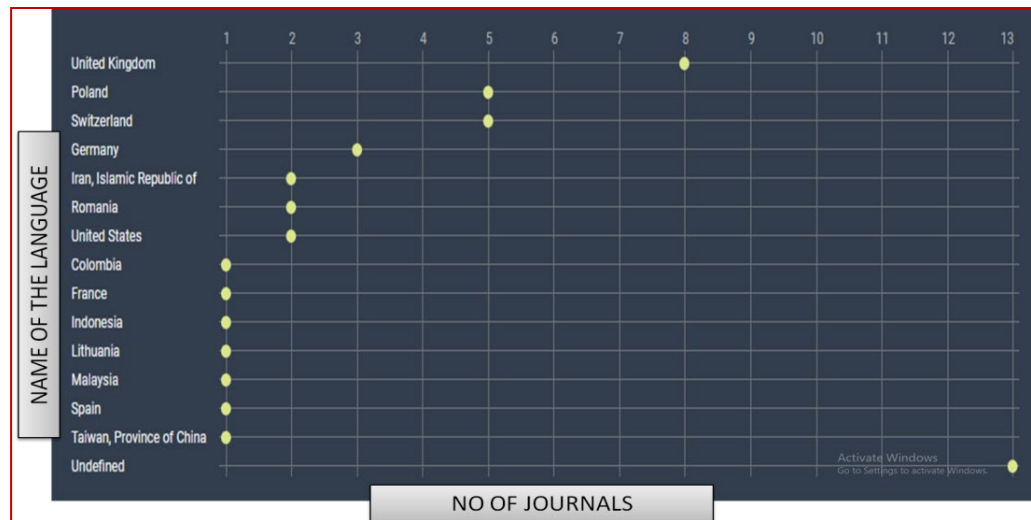
Figure 7: Most Productive Countries on Robotics Journals in DOA

Figure 7 clearly shows that there are 8 journals published from United Kingdom followed by 5 journals from Poland and Switzerland. While Germany has 3 journals on Robotics; Iran, Romania and United States have 3 each on Robotics.

Review system of journals
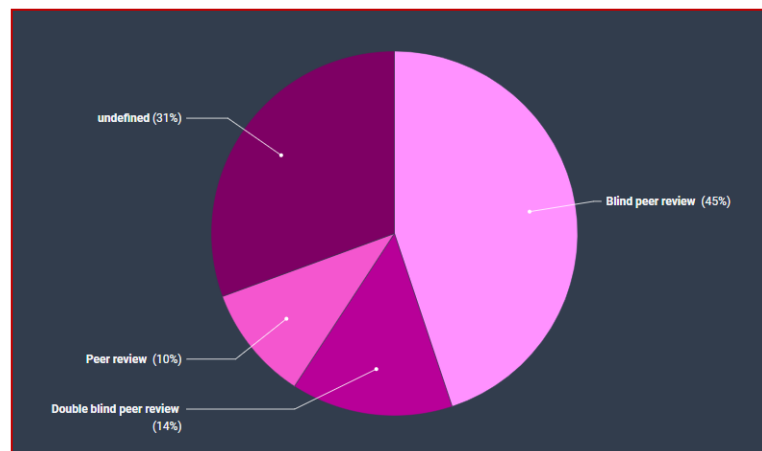
Figure 8: Review System

Figure 8 reveals that 49 journals on Robotics in DOAJ follow peer review system while 45% journals follow blind peer review, 14% journals follow double blind peer review system and 10% follow peer review. Remaining 31% Undefined.

Article level analysis

Predominant journals vs number of articles

Figure 9: Top 10 Journal Titles

Figure 9 shows that the journal 'Sensors" has published 1069 articles followed by 'Frontier in Robotics and AI' with 994 articles followed by 'IEEE Access' with 920 articles and 'Applied Sciences' with 505 articles.

Yearwise publication of articles
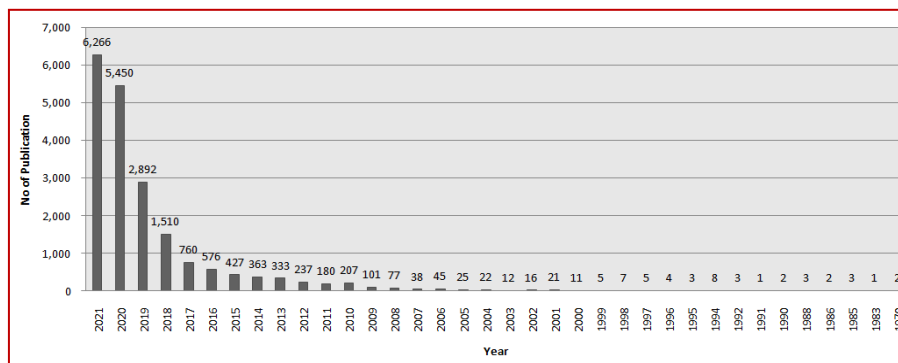
Figure 10: Year wise Publication of Journal Articles

Figure 10 reveals that year wise journal articles published in Robotics. A majority of 6266 journal articles published in 2021 followed by 5450 in 2020 and 2892 journal articles of 2019. It is evident that there is increase in the number of articles published in DOAJ. In the last 6 years it is traced that there is an incremental increase in the publication of journal articles in the field of Robotics.

Conclusion

Based on the Budapest Initiative, Directory of Open access journals facilitate free access to scholarly scientific articles and journals with the high standard peer review system. DOAJ

majorly helps to improve the research impact and visibility to the scholars in their respective domain which really meant for improving the citation analysis. It helps to find the appropriate journals for the concerned domain research and prompted to choose the right source with the proper review system. DOAJ is also one of the best identifier to find out the predatory journals or cloned journals in the subject domain. Directory of Open Access Journal is a boon and vital in this current situation to find out the right source to publish and increase the visibility.

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Bibliographic Control of Urdu Publications in India: Current Status and Trends

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Abstract

This attempt has been made to find out the current status of bibliographic control of Urdu publications in India and the work being done on its bibliographic control in 16 state Urdu academies of India. The National Library of India, Kolkata working as national bibliographic agency and state Urdu academies, which are autonomous bodies of their respective states are responsible for the growth and promotion of the Urdu language in those states, are included in the scope of this survey. The main objectives of this study are to find out the status of bibliographic control of Urdu publications in India, and to find out about secondary literature in Urdu language compiled by these State Urdu Academies, and to identify the problems and challenges in the bibliographic control of Urdu publications in India. It has been found from some literature reviews that no such study has been conducted on bibliographic control of Urdu publications in India. Thus this study would be helpful to researchers working in the field of bibliographic control, Urdu literature and language, and language bibliographies and other related areas.

Keywords: Bibliographic Control, Language Bibliographies, Urdu Bibliographies, Urdu Academies, India.

Introduction

For any nation, bibliographic control is a broad-based activity with the single goal of creating a framework within the country for systematic listing and management of a country's publication output or intellectual heritage, whether published by citizens of the country or about the country, and making it publicly available. National bibliographic control comprises various resources in order to standardize the information in a universally acceptable bibliographic format. These are; catalogue code, classification schemes, author tables, and subject headings, which are applied in the creation and maintenance of catalogues and union lists etc. Besides some standardized writing formats such as the APA, the MLA and the Chicago formats are followed for compilation of bibliographies. According to International Fedration of Library Associations and Institutions (IFLA, 2021) guidelines, Universal Bibliographic Control can be achieved more successfully if libraries or national bibliographic agencies collaborate and shared their bibliographic data maintained according to universally accepted standards. This practice also promotes sharing and the re-use of bibliographic data by different libraries and bibliographic agencies, which reduces repetition in data entry for bibliographic control at national as well as universal level.

In comparison to countries that belong to a singular language culture, in multilingual countries like India, in which language diversity is a part of the historical cultural heritage and an essential component of the country's philosophy, the bibliographic control of publications in various languages, as in national language or local languages, is very critical. Furthermore, access to publications published in linguistic minorities and non-scheduled languages in India are very difficult, and it demands an idealized bibliographic control framework for the preservation and easy retrieval of that data.

Urdu language is one of the 22 scheduled languages in India and it is an ancestral language which is spoken in many Indian states and is also an oficial language in some states of India. Therefore, bibliographic control of Urdu publications is an important area for study and research in librarianship.

Research methods and scope of the study

- Qualitative analysis has been applied in the present study. Purposive sampling technique has been applied in the selection of information rich cases for analysing the status of bibliographic control of Urdu publications in India. Data has been collected through personal visits, printed or electronic documents and the Internet-based resources as well. Besides, wherever personal visit is not possible due to some reasons, data has been collected via telephone or e-mails.

- An analytical survey haas been conducted to find out the secondary literature about Urdu publications (i.e., Urdu bibliographies, indexes or catalogues) compiled or published in Urdu language by National Library of India and sixteen state Urdu Academies of India; namely Andhra Pradesh Urdu Academy, Bihar Urdu Academy, Chhattisgarh Urdu Academy, Delhi Urdu Academy, Haryana Urdu Academy, Karnataka Urdu Academy, Madhya Pradesh Urdu Academy, Maharashtra State Urdu Academy, Odisha Urdu Academy, Punjab Urdu Academy, Rajasthan Urdu Academy, Tamil Nadu Urdu Academy, Telangana State Urdu Academy, Uttarakhand Urdu Academy, Uttar Pradesh Urdu Academy.

- The main purpose of the survey is to analyse the role in bibliographic control of Urdu publications perfored by the above mentioned institutions.

Objectives

- To identify the status of bibliographic control of Urdu publications in National Library of India and various State Urdu Academies of India.

- To find out the secondary literature (i.e. bibliographies, catalogues and indexes, etc.) on Urdu publications in National Library of India ans State Urdu Academies of India.

- To identify problems and challenges in bibliographic control of Urdu publications

- To suggest measures to improve bibliographic control of Urdu publications.

Result

- National Library of India is working as National Bibliographic Agency in India

- It compiles Indian National Biography (INB) of 14 major languages of India including English (i.e., Assamese, Bengali, English, Gujrati, Hindi, Kannada, Malayalam, Marathi, Odiya, Punjabi, Sanskrit, Tamil, Telugu and Urdu.).

- It publishes a combined National Bibliography of India in Roman script as well as 14 separate language bibliographies.

- Qaumi Kitabiyat (National Bibliography (Urdu)) is one of those language bibliographies.

- Its regular issues with different frequency of publication are being published since its first issue (1959) to the current issue (2020).

- Publications received under Delivery of Books and Newspaper Act- 1954 (D.B. Act-1954) are included in Indian National Bibliography and its 14 language bibliographies including Qaumi Kitabiyat.

- There are 28 states and 8 Union territories of India. But only fifteen states and one Union Territory have State Urdu Academies for the promotion and development of Urdu language in their respective states.

- Only four Urdu academies (i.e. Rajasthan Urdu Academy, Delhi Urdu Academy, Madhya Pradesh Urdu Academy and Utter Pradesh Urdu Academy) have done some remarkable work in the field of publication.

- But no Urdu academy has given any attention towards bibliographic control of Urdu publications and development of their libraries. The condition of libraries at Urdu Academies is very poor.

- Not even a single Urdu bibliography has been published by these academies.

Discussion of result

Government obligation: On the basis of present study, one of the extracted reasons is the

negligence and lack of interest of State Governments towards Urdu language. Lack of recruitment of competent library staff in all Urdu academies is a common issue which is needed to pay attention. So it is obligatory on part of government take some initiatives to improve the conditions and functioning of Urdu academies.

Staff obligations: The secretaries/directors of Urdu academies should pay attention towards the development of libraries and bibliographic control of Urdu publications. Staff should perform its duties efficiently and faithfully.

Role of coordinating agency: National Library of India should collaborate with State Urdu Academies and work as coordinating agency for the bibliographic control of Urdu publications more accurately and more updated at state level as well as national level. Central government as well as state governments of different states of India should take initiatives towards this direction.

The Delivery of Books Act should be amended and altered right away.

To make Indian National Bibliography available online, the required steps must be taken.

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Data visualization of book collection for the university of southeastern philippines

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Abstract

The Data Visualization of Book Collection is a web-based system intended for the University of Southeastern Philippines librarian and library staff, faculty, student, and other stakeholders. It is a tool to identify the strength and weaknesses of every subject in the program, serves as a monitoring system in selecting and acquiring library resources, and assists in conducting collection assessments. Furthermore, this study intends to develop a data visualization of book collection through a) development of a module to build a library collection per program and college; b) generate data visualization reports in terms of date of publication, the number of volumes, and titles, resources not used, and per program; and c) generate library collection reports classified by course. This study is anchored on Modified Rapid Application Development (RAD) as a methodology that includes the planning, design and development, and implementation and testing. The system generates reports in terms of date of publication, the number of titles and volumes, resources not used, and resources in specific programs in graphical format using backend and front-end development tools, cloud web hosting, server, and other tools. Moreover, the system also provides an additional function, such as exporting a list of library resources per program in word format. A functionality test was conducted on fifteen (15) selected respondents who participated by librarians, library staff, students, and faculty of the University of Southeastern Philippines. The assessment revealed that most end-users were extremely satisfied with the system's usefulness and reliability in terms of functionalities and capabilities.

Keywords: *Book Data Visualization, Collection Analysis.Data visualization, University Library*

Introduction

This increasing amount of library data and information available in the library are often associated as library statistics or reports. The increasing data in the library leads to engaging in multifaceted data analysis, such as data visualization, to help improve and understand the trends in the library services and collection (Cox, B. L. & Janti, M., 2012). Data visualization communicates and presents data, information, and knowledge that helps librarians to perceive easily, understand, comprehend, and discover large data sets (Purchase et al., 2008; André et al., 2009; Beale, 2007 cited in the study of Mercun, T. & Zumer, M., n.d.). One of the significant issues in the library is also on reports related to collection assessment, where there is a need to develop, maintain and update a list of collections per program and course that shows the total number of titles and volumes present to a subject. The USeP Learning Resource Center (ULRC) consolidates and generates numerous data from the utilization, acquisition, and listing of collection in a particular program and course, which guides the library in delivering information

resources to its users (USeP Library Manual, 2019). In conducting collection assessment in the library, the librarian needs to manually consolidate the list of resources per program by copying the bibliographic information from the Online Public Access Catalog (OPAC). The librarian will manually indicate and tally the number of titles and volumes and collection summary per program and subject in the format used by the library. In updating the list, the librarian needs to search the subject again in the OPAC and perform counterchecking if the resources are added already or not. These problems lead the library to respond longer whenever someone or an accreditor asks for a list of library resources per program, including its graphical representation. This paves the way for the urgency to develop a solution that will streamline the current setup of the library and eventually guide the collection development, reduce the cost of overtime allotted for each staff and librarian in doing manual consolidation and updating the list of collections. And establish good management towards the attainment of the accreditation standard requirements and compliance.

Objectives of the Study

Generally, the main purpose of this study is to:

- Develop a module to build a library collection per college and program.

- Generate data visualization reports of library collection.

- Generate library collection reports classified by course.

Related Literature

Data visualization has become a hot topic over a few years. The University of North Carolina State University Libraries initiates data visualization projects that visualize the usage of reference services, course tools, computer workstations, and group study rooms. The Harvard Library Lab showcases the tools that view the collection size and enable them to group their collection by subjects (Phetteplace, E., 2012). Agee, J. (2005) emphasizes in his study that the use of curriculum guides in evaluating specific subject areas gives the librarian a way to compare the current holdings, determine the number of collections a particular subject has and allows the library to solicit inputs from the faculty. Furthermore, the attainment of the required number of copies of collection or title per program is assessed and seen during accreditation. There are several accrediting agencies and bodies responsible for the conduct of accreditation; one of them is the Accrediting Association of Chartered Colleges and Universities in the Philippines (AACCUP), one of the accreditors of state universities. The focus of the accreditation covers nine (9) areas, one of them is the library (Pila, R. A., et. al., 2016). The standards set by this accrediting agency are also based on the standards set by the Commission on Higher Education (CHED), which aim to guide academic libraries in advancing and

sustaining their role as partners of the community (Commission on Higher Education, 2017). Accreditation in academic libraries is essential because it determines if it meets or exceeds the minimum requirement and opens an opportunity for improvement. Furthermore, librarians must understand their role in the information arena, specifically in analyzing and communicating data in an advanced way that can save and reduce the amount of time the energy required and increase the staff capacity in interpreting and analyzing statistical reports (Meyer, A., 2018).

Methodology

The method applied in this study is a modified Rapid Application Development Model that reduces the planning time and measures actual progress that results in faster development (Lucid Content Team, 2021). The system contains the following: 1) The bibliographic information which plays the main component of the system; 2) The course number, course description, course code from the prospectus, which will be the basis in grouping the library resources per program. The development phase includes implementing the agreed tools and interface. A Functionality Test was also implemented as part of verifying the performance of the system.

Result, discussion/conclusion, and recommendations

Develop a module to build a library collection per college and program

The first step in grouping the library resources per college and program is the creation of the homepage. The homepage in this system serves as the default page when a user accesses the system. An administrator and a user account are created, described, discussed, and explained in Table 1.

Table 1 Modules of the System

ADMIN MODULE	
Content of the System	Description
Admin Content 1	It provides a module that will allow the admin to add, edit, and delete.
Admin Content 2	It contains MARC 21 format for Bibliographic Data for library resources.
Admin Content 3	It contains the name of all colleges, including its respective programs and majors' subjects.
Admin Content 4	The system shall generate statistics or reports.
USER MODULE	
Content of the System	Description
User Content 1	It provides an interface for the user that will allow them to search library resources.

There were eight (8) colleges and one (1) general subjects encoded in the system in this study. One (1) college was selected as a sample. The added departments and college and common MARC Tags are used to add or encode library resources, which is the most important as they will form part of the generation of reports. All the input made by the Librarian will reflect on the homepage of the system.

Generate data visualization reports of library collection

The system has a report generation capability that allows the admin user to generate graphical reports. Generating reports by date of publication is based on the year indicated in the call number of each library resources. The counting of volumes and titles of each resources is based on the number of library resources encoded. Every encoded library resources is equivalent to one title. In terms of volumes, the librarian will input it into the system. Each library resources that any user does not browse is counted as resources not used.
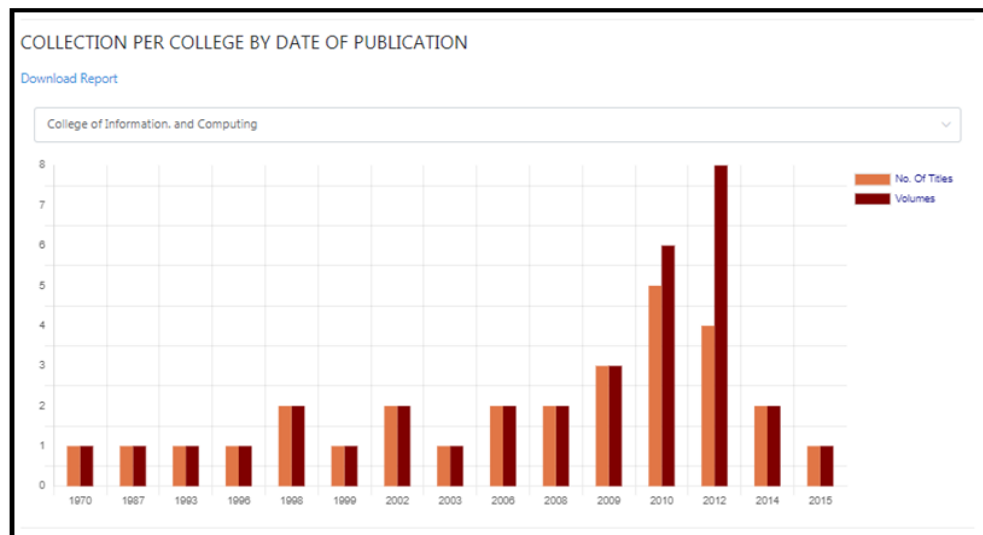
Figure 1. Sample visualization report

Generate library collection reports classified by course

The system also allows generating a list of library resources by program and course. The report generated by the system is based on the collection present in a particular program and course. The report includes call number, book titles, author, accession number, copyright, number of titles, and volumes.

Functionality Testing

There were fifteen (15) randomly selected participants composed of seven (7) librarians or library staff who access the system using the user and administrator account, two (2) faculty,

and six (6) students tasked to critique and rate the system based on their observations during the hands-on testing. The questionnaire disseminated to the respondents intends to document the hands-on testing. It is divided into System for Library Collection, System for Report Generation, and System Usability. The respondents will rate the questionnaire using a scale.

Conclusions

Based on the objectives, the following conclusions are given:

- The system provides an admin module that allows grouping of library resources by college and program, and a user interface that enables search engines in terms of author, title, keyword, and subject code;

- The system generates reports in terms of years, volumes and titles, library resources not used, and library resources for specific programs.

Recommendations

The recommendation presented here is based on the observations, comments, and suggestions during the functionality testing of the system. The following recommendations are:

- The system shall allow integration of its functionalities into the existing USeP Library Management System (LMS) or any LMS that the library will use and shall allow remote access;

- The system shall provide an admin account intended for the faculty members that allows them to integrate their syllabus and be able to validate the library resources used as references;

- The system shall allow comparison of library resources against the standard set by the accrediting agencies to quickly determine the required percentage of the collection in terms of recency;

- The system shall allow the grouping of library resources by subject headings to determine the number of titles and volumes.

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Use of School Libraries by Teachers for Teaching Purposes: A Survey Conducted in Sri Lanka

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Abstract

The school library is an integral part of teaching and learning in the school and the main goal of the school library is to ensure that all members of the school community have equitable access to books and other reading materials available at the library. The present study examines the use of the school library by teachers for teaching purposes. A survey questionnaire was used as the main data collection tool for the study and the study population was in-service school teachers who work in the government schools in Sri Lanka. Multistage cluster sampling technique was applied to select the study sample and the collected data were analyzed by using SPSS (21.0). The results of the survey revealed a low use of school libraries by teachers. Teachers expressed their dissatisfaction towards library resources and services specifically outdated and irrelevant library collections for the subject taught in schools.

Keywords: Library Use, School Teachers, User Satisfaction, Sri Lanka

Introduction

The school library is an integral part of teaching and learning in the school and it plays a key role in enabling community engagement and promotes outward thinking and future-focused thought and discussion. The library, which is the hub of any educational setup, provides information and idea that are fundamental to functioning successfully in the increasing information and knowledge-based society. (Babayi et al, 2019) Morris (2012) defined a school library as a library established in primary and secondary schools that acquire and provide information resources to pupils and teachers. However, in the present digital era, it was found that the library has become a student-dominated place and the usage of the library by the teachers has declined dramatically since the mid-1990s (Martell, 2008). Therefore, the understanding of library use and the level of their satisfaction towards the library services will be helpful to improve the library services in the standard manner. The findings of such studies will be certainly helpful to identify the factors that hinder library use and consequently they may be helpful to plan customer-centered service from school libraries.

Although there was an abundance of studies about school library usage of learners, a few studies exist that explore library usage of school teachers. Therefore, this is the gap that this study seeks to fill. For this study, the researchers intend to investigate the nature and extent of the use of school libraries by teachers for teaching purposes. The study further assessed the extent of teachers' satisfaction with specific information services provided by the library.

Objectives of the Study

The main objectives of the study were; -

- To investigate the use of school library by the school teachers in Sri Lanka

- To determine the level of satisfaction of teachers towards some library services

Methodology

Data were collected using a survey questionnaire distributed among teachers in Sri Lanka. Multistage cluster sampling technique was employed as school teachers scattered in a wide geographical area of the country were selected in several stages. A self-administered questionnaire specifically designed for the study used as the main data collection tool was administered in early September 2019. A total of 3200 questionnaires were distributed to teachers and 2236 were returned, making a nearly seventy percent (69.9%) response rate. The collected data were analyzed by using SPSS (21.0).

Data Analysis and discussion

Biographical Characteristics of the Respondents

The responses showed the following characteristics of the population of the study: the majority (72%, N=1607) of the teachers were female and only 629 (28%) were male. Concerning age, 50% of teachers (N= 1126) were aged between 31-40, followed by those between 41-50 (24%, N=546) and 20-30 (20%, N=435). This shows that most teachers (74%) were in the middle-aged category. The results also showed that half of the respondents (N=1116) had bachelor's degrees, followed by those with a postgraduate diploma (34%, N=761). More than 15% of respondents whose education was at the Master's level (N=345, 15.4%). It was found that most of the teachers were qualified for serving in the teaching profession.

Reasons for School Library Use

Teachers were asked to indicate the main reasons for using the library. Several possible reasons were given to them so they could select the appropriate ones.

Table 1: Reasons for School Library Use

	Reason	Frequency	Percentage
1	Support own reading	1876	83.9
2	Support class room teaching	1781	79.7
3	Keep abreast with current information	1779	79.6
4	Lesson preparation	1701	76.1

5	Read newspapers/magazine	1595	71.3
6	Use of reference books	1498	67.0
N=2236, * Multiple choices allowed			

As shown in Table 1, the major reason for using the library by teachers (84%, N = 1876) was to get support for their own reading, followed by getting support for classroom teaching (80%). The results also showed that most teachers (79.6%, 76%, and 71%) used the library to keep abreast of current information in subject areas, lesson preparation, or reading newspapers or magazines. This finding is consistent with studies of (Edoka, 2000 and Waite, 1989) who affirmed a school library is a place that has been established in a school to provide a wide range of learning and teaching materials to students and teachers.

Frequency of Library Use

In order to know how frequently a teacher used the school library, respondents were asked to indicate their use and data presented in Figure 1. The data in Figure 1 showed that the majority of respondents (29%, N=644) were using the library on special occasions and about 575 of the respondents 26% were using the library weekly. The results also showed that 23% used the library once a month, whilst 8% used the library rarely. It was found that only 145 respondents (6.5%) visited the library daily. The results give an insight that a majority of the respondents had not used their school libraries regularly.
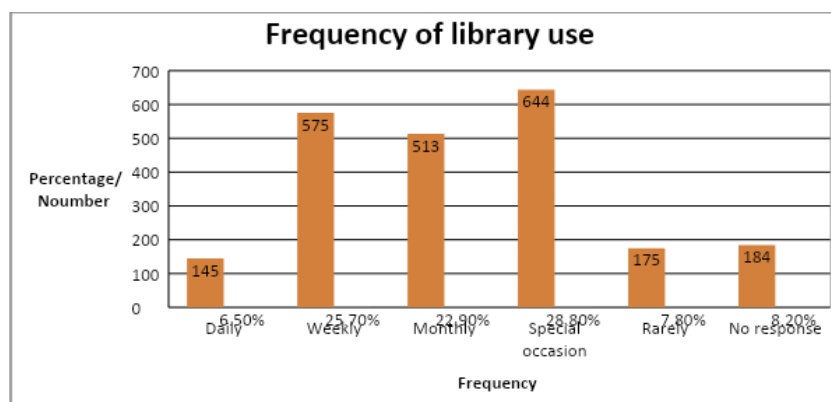
Figure 1: Frequency of School Library Use

Satisfaction towards Library services

Teachers were asked to rate their level of satisfaction with specific library services, plus they were asked to mark the agreement against the statements given on a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." Statements are listed in descending order according to the mean scores recorded. (Table 2)

The results showed that 56% (N=944) of respondents for the statement on "library user

awareness programs on library services and available resources are very helpful" with having the mean score of 3.34 suggests that the teachers were not sure whether the library awareness programs were helpful to know about available library services and resources. Over one-third of respondents (38%) agreed on "Staff in the library is helpful" with having a mean score of 3.28 suggests that the teachers were uncertain about the helpfulness of library staff. When asked about whether "library arrangement is good and easily locate relevant information sources," 40% agreed, with having the mean score of 3.14 suggests that the teachers were neutral about library arrangement. More than 45% of the respondents (N=944) agreed with the statement on "library catalogue provide easy access for library resources" with having the mean score of 3.10 suggests that the teachers were uncertain about easy access to the collection through the library catalogue. (Table 2)

Table 2: Satisfaction towards Available Library Services and Resources

	Statements	SDA	DA	NU	AG	SA	RS*	MN*	SD*
1	Library user awareness programs are helpful	139 (7%)	198 (10%)	789 (38%)	705 (34%)	239 (12%)	2070	3.34	1.025
2	Staff in the library is helpful	143 (7%)	176 (9%)	958 (47%)	504 (25%)	266 (13%)	2047	3.28	1.026
3	Library arrangement is good and easily locate relevant information sources	197 (9%)	418 (20%)	641 (31%)	566 (27%)	270 (13%)	2092	3.14	1.159
4	Library catalogue provide easy access for library resources	254 (12%)	417 (20%)	469 (23%)	756 (36%)	188 (9%)	2084	3.10	1.184
5	I am satisfied with resources available to the subjects that I taught	268 (13%)	375 (18%)	1082 (52%)	262 (13%)	92 (4%)	2079	2.78	.974
6	Library has current and updated collection	216 (10%)	734 (35%)	686 (33%)	352 (17%)	88 (4%)	2076	2.69	1.007
Scale: 1.SDA= Strongly Disagree; 2.DA= Disagree; 3. NU= Neutral; 4 AG= Agree; 5 SA= Strongly Agree; RS= Number of Responses: MN= Mean Score; SD= Standard Deviation									

For the statement on "I am satisfied with resources available to the subjects that I taught," 31% (N=643) of the respondents disagreed while only 17% were agreed, and the majority (52%) (N=1082) were neutral. The mean score of 2.78 suggests that the teachers were not satisfied with the resources available to their subjects in the library. When asked about whether "library has a current and updated collection," 45% disagreed, and only 21% were agreed, with having the mean score of 2.69 suggests that the teachers were not satisfied with currency and updated library collection. The results gave an insight that most of the respondents were not satisfied

with library services, particularly about the currency (outdated library materials) and the relevancy of resources available for their subject fields despite satisfaction with user education programs conducted by the library.

The results are in line with the study of Attafuah (2015), who found the teachers were not satisfied with the services of the library. The study also established that, in a situation where information needs were not met at the school libraries, teachers sought help from the internet to satisfy their information needs, which is right in the local context also. In terms of the satisfaction with library services and resources available, most of the respondents agreed that the user awareness programs on library services and available resources conducted by the library were beneficial. This finding is not in agreement with the findings of Tachie-Donkor, and Dadzie (2017), who found there was no in-service training in information literacy (library and internet skills) conducted for teachers.

Conclusion

This study has given a clear picture of the use of school libraries by teachers which implies been disappointing. The utilization of school libraries in the country can be enhanced if libraries are equipped with up-to-date library materials that are relevant for the subjects taught at schools. In order to motivate teachers to use school libraries resources, the libraries should be funded to acquire the most relevant and current library materials that need to fulfill teachers' information requirements.

A study on the data entering Pali Tripitaka books in OPACs; study based on University on the Kelaniya and National library of Sri Lanka

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Abstract

paper aims to examine the how the Pali Tripitaka texts are included in the computer catalog. The Online Public Access Catalogue (OPAC) of the two libraries, the National Library and the University of Kelaniya, was used for The this purpose. The research was conducted by a mixed research study using the OPAC of the two libraries. As a result of this study, the bibliography of the Tripitaka is minimal, there are problems with Transliteration errors, as well as the lack of unitary bibliography, Libraries do not use the cataloging standards, Rules Etc many problems could be identified. Accordingly, if the online public access catalogue of these libraries is updated and the uniform title for the Tripitaka books are compiled following the catalogue standards and authority control file, it will be possible to pass them on to the reader as well as other libraries with successful authoritative control.

Keywords: *Heading, Tripitaka Books, online public Access catalogue, Uniform Titles, catalogue standards, supporting documents*

Introduction

The catalogue is one of the most important and useful information retrieval tools in the library. Library catalogue takes many physical forms from simple inventory lists of books and manuscripts, elaborated nineteenth – century, manifestations such as printed catalogue, guard book catalogue, with entries for individual items pasted in to folders, card catalogue traditionally consisting of cabinets with entries on 3 x 5 inch cards, sheaf catalogue with entries on slips held in a loose – leaf binder, micro form catalogue and since the late 1960s On-line Public Access Catalogue (OPAC). Among these different physical forms of the catalogue OPAC is the newest and most sophisticated catalogue format (Wanigasooriya, 2008).

As a result of the emergence of the computer catalogue, the online public access catalogue is defined as a mechanism that provides a real-time interactive approach to bibliographic records in a library collection. The AACR2 is the globally accepted catalogue rule of conduct for the catalogue as well as the catalogue of the leaflets. It operates according to the standard in the computer environment. MARC, these standards should be followed in cataloguing activities. The various entries in the Library catalogue play a very important role in providing easy access to the library material.

Thus, the computerized catalogue becomes more complex as the number of access points and different approaches increases. Authoritative control, however, refers to a method of controlling the access headers used to access the library material. It is also important to have a uniformity in the author name, bibliography, subject name, etc. that are used as entry titles. It requires a

standard set of terms. The use of uniformly controlled names instead of bibliographic names as well as different subject names can be used to efficiently meet the needs of users. Maintaining such authentic files contributes to the success of the cataloguing function and reader access. Also, titles are compiled locally and internationally for the compilation of bibliography titles. The Sri Lanka National Library takes the lead locally in this regard. The online search catalogue is currently used in the library system of Sri Lanka.

Objectives

The Research Main objective to Study how the ancient Tripitaka scriptures are catalogue in computer catalogue (OPAC)

Research methodology

The mixed research methodology was used in the research. Purposive sampling method was used for sample of the study. accordingly, National Library and the University of Kelaniya Library libraries were selected as the sample. Interviews, web survey methods were used as principle techniques. Data were presented using charts, tables, graphs etc. Data were analyzed utilizing MS Excel software

Findings

There are two types of automation software in the two libraries, the koha software in the National Library is free automation software and the Libsys software in the University of Kelaniya appears to be commercial automation software. Both of these libraries use the MARC 21 standard for the online public access catalogue of these two automated library software.

Table 01 Explore areas in the Online Public Access Catalogue

Research fields	Tips of libraries		Percentage
	Library of university of Kelaniya	National library	
Title	yes	yes	100%
Author	yes	yes	100%
Subject	yes	yes	100%
Call No	yes	no	50%
ISBN	yes	yes	100%
Series	no	yes	50%
Advanced	yes	yes	100%

The table above shows that the two software's have seven main areas of exploration. Out of these, Title, and its percentage is about 50 percent. The series field of research is found in the National Library and not in Author, Subject, ISBN, Advanced is found in both the Library of

the University of Kelaniya and the National Library and the percentage is about 100%. The call no field of research of the University of Kelaniya is found only in the University Library the University Library of Kelaniya. Accordingly, the percentage is 50 percent. Use of Uniform Title in Pali Tripitaka texts in the OPAC

The National Library and the University Library of Kelaniya were used as samples in the data collection for this research and the OPAC to those libraries has been analyzed on how the Pali Tripitaka bibliographies in the list have been read. Here, while searching for Tripitaka books under the field of title, it was possible to identify whether titles have been compiled for it under the uniform titles.

Table2 Uniform title in Suththra Pitakaya

No	Nikaya	OPAC		
		Library of university of Kelaniya	National library	
1	Digha Nikaya	Wrong	Wrong	
2	Majjhima Nikaya	Wrong	Wrong	
3	Sanyutta Nikaya	Wrong	Wrong	
4	Anguttara Nikaya	Wrong	Wrong	
5	Khuddaka Nikaya	Wrong	Correct	
	Results	Wrong 100%	Correct 20%	Wrong 80%

Table 3 Uniform title in Vinaya Pitakaya

NO	Vinaya Pitaka	OPAC	
		Library of university of Kelaniya	National library
1	Parajika pali	Wrong	Wrong
2	Pachittiya pali	Wrong	Wrong
3	Mahavagga pali	Wrong	Wrong
4	Chullavagga pali	Wrong	Wrong
5	Parivara pali	Wrong	Wrong
		Wrong 100%	Wrong 100%

Table 4 Uniform Title in Abhidharma Pitaka

NO	Abhidamma pitaka	OPAC	
		Library of university of Kelaniya	National library
1	Dhammasangani prakarana	Wrong	Wrong
2	Vibhanga prakarana	Wrong	Wrong
3	Dhatukata prakarana	Wrong	Wrong

4	Puggalapannaththi prakaran	Wrong	Wrong	
5	Katavattu prakarana	Wrong	Correct	
6	Yamaka prakarana	Wrong	Correct	
7	Pattanap prakarana	Wrong	Correct	
	Results	Wrong 100%	Correct 42.85%	Wrong 57.14%

Conclusion

According to the above data, only 04 of the 17 Pali Tripitaka books in the National Library are correct and their percentage is 23%. All 13 other books in the library are erroneous and have a percentage of 77%. All the 17 books in the Kelaniya University Library were found to be inaccurate. Thus, the above facts reveal that the use of unitary book names in the Tripitaka bibliography in the online catalogue of these two libraries is incorrect. A number of problems were identified in the inclusion of Tripitaka textbooks in the OPAC. In particular, problems with spelling, punctuation, and punctuation were found.

Recommendation

Maintain Authority control files when using uniform title as well as bibliographic information and accordingly add bibliographic information and unit headings to flags. Refer staff to re-monitor after entering bibliographic information into OPAC. Compile and maintain a list of book titles tailored to the local dialect. Obtaining assistance from persons with expert training and organizing practical programs for the preparation of authoritative documents and book title lists. Minimize technical hindrances in the implementation of OPAC and address them. Keep the staff well informed and the Librarian regularly inquires about it. Knowledge of ancient texts and issues arising in the selection of titles in catalogue those texts should seek the assistance of scholars with knowledge of those texts.

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Knowledge Management: concept, types, process and its need in libraries

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Abstract

The term 'Knowledge Management' became more prevalent in during the last few years of the 20th century. There is an ever-increasing acknowledgement of knowledge and information among individuals, organizations, and communities. Knowledge Management (KM) focuses on various aspects that accelerates to find, identify, capture, store, share, and renew information/knowledge for better performance of any individual, organization, or business. Libraries are no exception to the adoption of KM as libraries always focus on continued improvement, up gradation in their services and facilities. This paper discusses in detail about the knowledge management concepts, types, process, benefits etc and why it is needed in libraries. Library professionals have prospective benefits if they adopt knowledge management, this benefits their career, upgrades their position and status in the LIS field. Knowledge management benefits both the libraries and the library professionals, however the library professional is held responsible for the success of the same.

Keywords: Knowledge Management, Need for KM, Types of KM, Knowledge Creation. Tacit Knowledge

Introduction

Knowledge is the full utilization of information and data, coupled with the potential of people's skills, competencies, ideas, intuitions, commitments, and motivations. Knowledge is an intellectual capital when people out of creation, add value to information. The essential elements of a library are to gather, measure, put together, spread reports or data to its client local area. In the advanced period the scholastic library is a treasury of human information, member in information development, and a significant connection in the information advancement. Notwithstanding, information the board ought to never be seen as a way of controlling the course of information creation.

Types of knowledge

Knowledge is classified largely into three types as given below:

- Explicit knowledge
- Tacit knowledge
- Implicit knowledge

Explicit knowledge

Explicit knowledge is the most basic form of knowledge and is easy to pass along because it's

written down and accessible. When data is processed, organized, structured, and interpreted, the result is explicit knowledge. Explicit knowledge is easily articulated, recorded, communicated, and most importantly in the world of knowledge management stored.

Tacit knowledge

Tacit knowledge is knowledge embedded in the human mind through experience and jobs.

Implicit knowledge

Implicit knowledge is the practical application of explicit knowledge. There are likely instances of implicit knowledge all around your organization. For example, consider asking a team member how to perform a task. This could spark a conversation about the range of options to perform the task, as well as the potential outcomes, leading to a thoughtful process to determine the best course of action.

Stages in knowledge management

Identify the required knowledge	Collecting relevant knowledge	Select the required knowledge	Store knowledge in the repository

Principles of knowledge management

Definition of Knowledge management principles are an enduring set of guidelines for managing knowledge that are established by an organization, program or team.

Knowledge is a Valuable Asset	Knowledge is Stored in A Central Repository	Knowledge is retained	Knowledge is Quality Controlled
Knowledge is decentralized	Knowledge is shared	Knowledge is secured	Knowledge is Accessible
Knowledge is Searchable	Work Produces Knowledge	Knowledge is measured	Knowledge is improved

Benefits from knowledge management

- Improve the decision-making process

- Increase customer satisfaction

- Promote innovation and cultural change

- Speed up access to knowledge and information

- Avoid redundant effort

- Accelerate customer delivery

- Stimulate growth and innovation

Knowledge management process

The below image explains in brief about the knowledge management process.
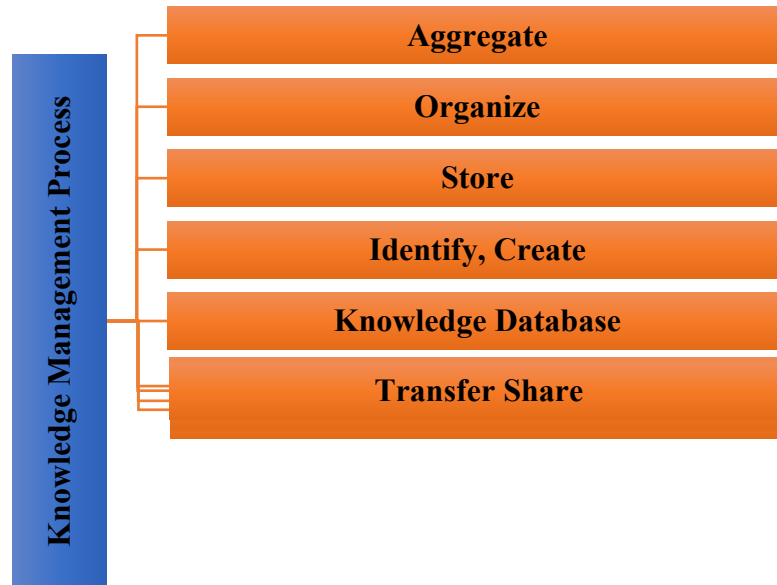
Figure 2: Knowladge Mangaement Process

Review of literature

(Neetha Devan, 2020) study examined as gateways to knowledge and culture, libraries play a vital role in the development of any society. Libraries are changing from its traditional nature to the newer concepts and newer ways are discovered to effectively manage knowledge. The type of knowledge demanded by the user, the skill of selecting, acquiring, organising, processing, repackaging, disseminating and retrieving it for the timely use of the clients, are gaining focus. The evolution of data to information and from information to knowledge with an added human element that of a librarian, who plays a vital role in accumulating and managing knowledge in Libraries are discussed. (Rajurkar M.U, 2011) Academic libraries are information centres established in support of the mission of their parent Institutions to generate knowledge, and people equipped with knowledge in order to serve the society and advance the Well-being of mankind. In the digital age, academic libraries face challenges from both within (academia) and without (The business sector). This paper mainly focuses on the concept of Knowledge Management and its role of academic Libraries.

Why knowledge management in libraries?

The current ICT environment has made knowledge as the key resource and knowledge

management is the need of the hour. Though the function of conventional libraries is to collect, process, disseminate, store and utilize information as part of their user service; the environment in which libraries operate today has changed due to the developments in ICT, which necessitates new ways of information handling.

Knowledge management is viable means in which academic libraries could improve their services in the knowledge economy. This can be achieved through creating an organizational culture of sharing knowledge and expertise within the library. The success of academic libraries depends on their ability to utilize information and knowledge of its staff to better serve the needs of the academic user community.

How can libraries improve their services through knowledge management?

- Creating an organizational culture of sharing knowledge.

- Change their values.

- Focus on creating and using intellectual assets.

- Expand their roles and responsibilities.

Knowledge management and skills of librarians

The below image explains in brief about the skills of librarians that match the knowledge management skills which is used in the libraries.

Figure 3: Skill librarians to Knowladge management

Objectives of knowledge management

The main objectives of knowledge management in academic libraries are as follows:

- To promote collection, processing, storage and storage and distribution of knowledge.

- To promote scientific research.

- To promote relationship between library and users.

- To protect the intellectual property right, in IT era.

- To create knowledge repositories and manage knowledge as an asset.

- To organize the value of knowledge and improve effective research.

Characteristics of knowledge management in libraries

- Human Resource management is the core of knowledge management in libraries.

- The objective knowledge management in libraries is to promote knowledge innovation.

- Information technology is a tool for knowledge Management in libraries.

Need for knowledge management

- To attract new information seekers to libraries.

- To maximize user satisfaction.

- To convert traditional libraries into a space where there's a justifiable solution to all.

- queries relating to all professional requirements.

Conclusion

In the current scenario information environment is undergoing lot of changes worldwide. Knowledge management is currently considered to be more strategic in organizations to be more competitive and ensuring success. Knowledge management promotes innovation, that helps the improvisation of services, facilities etc. The integration of knowledge exchange, sharing, innovation and application etc are considered as Knowledge Management. For organizations, business the need for knowledge management is considered vital as it impacts the success of its product, this is because implementation of knowledge management holds a competitive advantage over the competitors for the organizations, business. Libraries are no different from the above, as the knowledge management implementation helps the services, facilities of the library to reach its end users with higher customer satisfaction. Library professionals with support from IT professionals can ensure improved application of knowledge management in their libraries. Library professionals already have excellent knowledge on information management this will certainly support them to certify better knowledge management in their libraries.

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User satisfaction of Library Services during COVID – 19 pandemic: with Special Reference to Wayamba University Main Library, Wayamba University of Sri Lanka (WUSL).

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Abstract

The focus of the industrial age is on information. All the arts in the world are determined based on information and the library has moved towards the concept of a virtual library when it comes to the speed with which information is created in the world. The unpredictable impact of the COVID - 19 pandemic on all countries cannot be underestimated. That effect had a severe effect on the library system. Therefore, libraries and librarians should organize their services during its pandemic and lockdown. It focuses on how its services are run; the safety measures to be followed in maintaining those services; the responsibilities, and functions of library professionals in the event of a pandemic, as well as the technologies that libraries can use in providing services to their users. In the present study, an attempt was made to investigate the User satisfaction of Library Services during COVID – 19 pandemics.

The survey was conducted by using questionnaires with close and open - ended questions. Under graduate's students 100 selected for this study using a simple random sample method. The respondent rate was 88%. Respondents have mentioned that they use the library for their educational & research purposes. According to their response, 70% mentioned that they mostly requested past papers & research papers. Respondents mentioned that Ask a librarian service is the best service for requesting information. There are good percentages of users 75% are satisfied with the resources & services of the library, but others wish for improvement. The study identified that users were faced with a lack of photocopy services and non-availability of needed information materials. Based on the findings of the study the following recommendations were made, upgrading the library with necessary information resources and services and also enhancing photocopy service to fulfill their information needs.

Keywords: COVID – 19, Library Services, User Satisfaction, Pandemic, Wayamba University

Introduction

Libraries around the world have been facing lockdown challenges in providing access to its collections and services. All types of libraries have promoted their online/ electronic services during the coronavirus pandemic situation. However, the physical resources are often put on demand by users most preferably in scientific organizations where research on drugs and pharmaceuticals is being carried out for medical diagnosis and drug discovery. Libraries having significant numbers of e-resources may have enough opportunities to serve their users even during the lockdown period throughout the world. Several Libraries have brought out their digital services organizing virtual exhibitions, highlighting content on the websites and Let's Read Together online campaign. There have also been major efforts to boost access to the

library resources online as well as offline, for example by increasing the number of e- Books/ e-Journals/ CD-DVD, etc. in order to lower the risk of virus spread.

Objectives

- To identify the reasons for library use.

- To identify the best way for information requests.

- To identify the user satisfaction with library services.

- To identify the difficulties faced by library users.

Methodology

The survey was conducted by using questionnaires with close and open - ended questions.

Population of the study

As a sample used undergraduate students 100 and they were selected from using a simple random sampling method. 88 responded, and the rate was 88%.

Result & discussion

Table 01Reasons for library use.

Purpose	No. of users	% of users
For General study	08	09
Education and Research	60	68
For Preparing Competition	06	07
For Current Awareness	14	16
Total	88	100%

According to table 01, there are various reasons for library use. The above analysis shows that 68% respondents said they use library for their educational and their research work.16% respondents use the library for current awareness and 9% respondents said that they use library for general study.

It is clear and obvious from the above data that the majority of respondents use the library for their Education and Research work.

Table 02 Which services do you use in the library?

Purpose	No. of users	% of users
Social Medias	04	05
E-mail services	09	10
Ask a librarian service	47	53
Documents Delivery Service (DDS)	15	17
Reprography service (Photocopy, scanning, printing)	06	07
Inter Library Loan Service (ILL)	05	06

OPAC (Online Public Access Catalogue)	02	02
Total	**88**	**100%**

According to table 02, there are various services in the library. The above analysis shows that 53% of respondents said they use Ask a Librarian service to fulfill their information needs.17% of respondents use Documents Delivery Service (DDS).

Table 03 Are you satisfied with library services?

Answer	No. of users	% of users
Yes	66	75
No	22	25
Total	88	100%

According to table 03, the above analysis shows that 75% of respondents said that they are satisfied with the library services.25% of respondents mentioned that they aren't satisfied with the library services and wish to improve.

Table 04 Difficulties faced by using library services

Problem	No. of usage	% of Users
Non-availability of needed information materials	20	23
Lack of electronic library services	15	17
Lack of guidance	06	07
Lack of photocopy service	35	40
Lack of time	08	10
Lack of knowledge in using the library resources	04	03
Total	88	100%

According to table 04, it's showed that 40% of respondents mentioned that lack of photocopy service is a major issue for them & 23% mentioned that non-availability of needed information materials

Conclusion

As emerged from the conclusion, students used the library for their educational & research purposes. They mostly requested past papers & research papers to complete their exams and assignments. As a virtual reference service, ask a Librarian service has become a best service for requesting information. There are good percentages of users who are satisfied with the resources & services of the library but others wish to improve.

Recommendations

Based on the findings of the study, the following recommendations are made;

- Upgrading the library with necessary information resources and services to develop knowledge and skills of users.

- Providing more up-to- date information materials relevant to fulfill user needs.

- Enhance reprography services especially photocopy service.

- Developing innovative marketing strategies in libraries to promote services that are offered to students.

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User satisfaction on resources & services of academic library: A case of the library, University of Kelaniya

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Abstract

It is said that the library is the heart of the university. Every academic as well as university library try their best to cater for the users to obtain information in a split second; the library has to play a vital role to satisfied the users. This study was conducted to identify the user's satisfaction on resources and services available in the library at the university of Kelaniya. A designed questionnaire was distributed among the users who were undergraduates attached to five faculties: Social Science, Humanities, Commerce & Management Studies, Computing & Technology and Science. Using SPSS software, collected data was analyzed. The study revealed that most of the undergraduates were satisfied with available resources of the library. To them, books were the most favorable resource of the library, in preference to using journals and e-resources. In researching the resources, lack of awareness on services and resources, lack of staff support are the barriers that undergraduates experienced.

Keywords: *User satisfaction, University libraries, Information Resources, Library Services, Library resources*

Introduction

Universities in Sri Lanka are playing a vital role in engaged in academic and research activities. Similarly, universities are considered as a research-based institution. By providing required information resources and services, university libraries play important role in the research process. Therefore, the university library has defined as a heart of the university. Hence, the library is the intellectual resource of the academic community in an academic institution. There are three major groups who use the library such as undergraduate students, postgraduate students and university staff. University libraries in Sri-Lanka invest a large sum of money every fiscal year on the purchasing, subscription, processing and storage of information resources. On the other hand, a large amount of library resources and services are offered to the undergraduate students to upgrade the knowledge and skills by the university libraries.

Users of the library are considered to be the customers of the library. All libraries try their best to make the users satisfied with the services and resources offered by the library. Customer satisfaction or user satisfaction is generally defined as the post-consumption evolution of a product or a service. If the library makes the users satisfied then it may be a positive word of mouth recommendation to the other users (Yue, 2019). So, the staff of the library should pay attention on user satisfaction. At the same time, they should make sure that their information resources and services are well utilized by the undergraduate students. Hence, the staff of the

university libraries should be aware of the undergraduate students' satisfaction of the available library services and resources.

Often, public libraries as well as academic libraries conduct surveys to identify the level of user satisfaction of the library. In a Sri Lankan context, there were several researches conducted to ascertain the user satisfaction with the services and resources of the library (Kaushamalika & Weerakoon, 2020; Nawarathna, 2013; Somarathna, Peiris & Jayasundara, 2010). Nevertheless, this study is the first attempt to determine the user satisfaction with the resources and services of the library of the University of Kelaniya.

Objectives

This study was conducted with three main objectives. The principal objective of the study was to identify the user satisfaction on library resources and services among undergraduates in the university of Kelaniya. Secondly, to identify what kind of information sources they mostly used and finally to observe the problems they encountered and to determine the requirements and suggestions to overcome the hindrances encountered while using library resources and services.

Methodology

A survey method was used to identify the user satisfaction on library resources and the services of the library, University of Kelaniya. The target population group of the study was 9067 registered students for the academic year 2018/2019. That excluded the students of the Faculty of Medicine. Following the methodology of Krejcie and Morgan determination table, 368 undergraduates were selected as a sample of the study (Krejcie and Morgan, 1970). A structured questionnaire was distributed among undergraduates of the five faculties, namely, Faculty of Commerce & Management, Computing & Technology, Humanities, Social Science and Science. Collected data was analyzed using SPSS Version 22nd and analyzed data was represented in bar charts and pie charts.

Results

After collecting the data from the questionnaires, they were analyzed using SPSS package. 368 questionnaires were distributed and all were received with return response rate of 100%. Gender distribution of the sample was, 75% were female and 25% were male undergraduates. In a faculty wise comparison, the majority of undergraduates (24%) were from the Faculty of Commerce & Management Studies and 23% of undergraduates were from Faculty of Social Sciences and 21%, 20% and 12% participant samples were respectively attached to the Faculty of Science, Humanities and Computing & Technology. On an account of year wise distribution, 31% of the participants were first year undergraduates and 27%, 25% and 17% were from the

second year, the third year and the fourth year respectively.

The major objective of this study was to identify the user satisfaction on library resources and services among undergraduates. Figure 1 clearly displays that 20% of the undergraduates were very satisfied with the resources and services while 72% of undergraduates were satisfied with the services and resources. Very few students (7%) were dissatisfied and 1% commented that the library services and resources were very dissatisfaction.
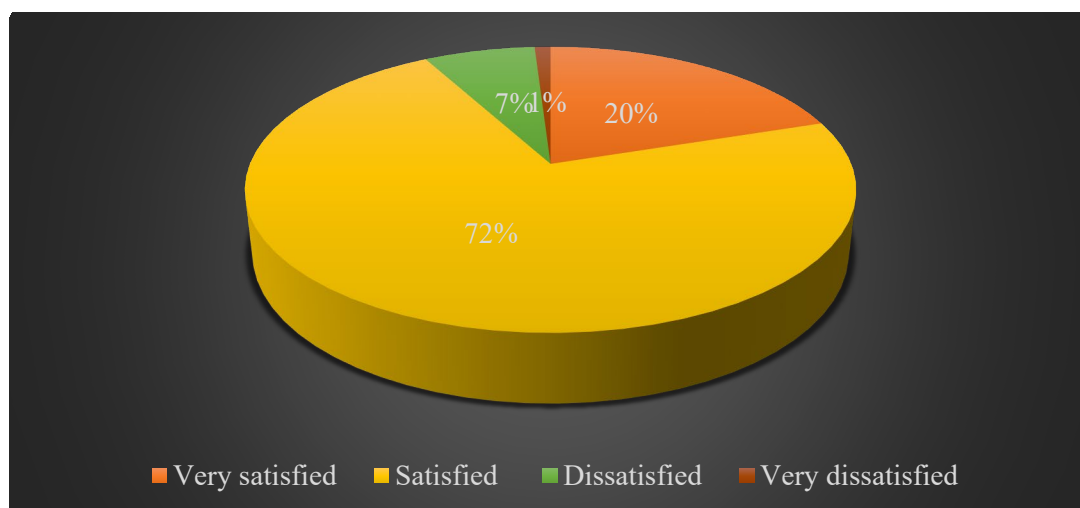
Figure 1: Overall satisfaction of the library resources and services (Survey data, 2020)

The second objective of this study was to identify the most useful library resources for the studies of undergraduates. Figure 2 illustrates the user's perception on library resources. Books were the most useful resources for studies of the undergraduates. The percentage was 83%. Somewhat usefulness was very high in the percentage of print journals and e-resources. It was 50%. As stated by 29% of undergraduates' perception, theses were not useful for their studies. Comparing the users' feedback, it was clearly identified that the demand for book is very high among the undergraduates.
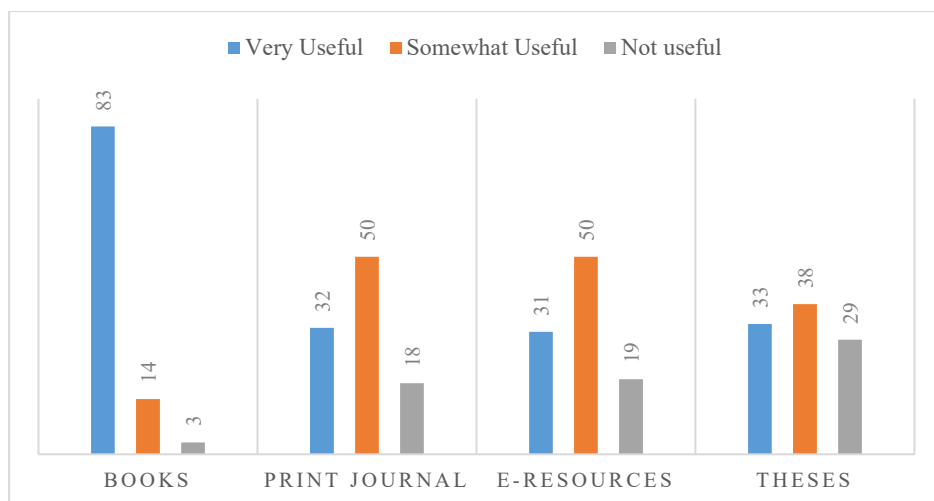
Figure 2: Usefulness of the library resources (Survey data, 2020)

Finally, this study was tried to observe what are the barriers that were faced by the users when they use library resources and services. The prime barrier of the users that were faced during the library usage was errors in OPAC and online catalogue of the library which was 35%. Inadequate of recommended readings was found out as the second main barrier (20%) for using the library resources. Also, insufficient support of the staff, unawareness about the library resources and services, limited number of opening hours were represented the 18%, 15% and 12% respectively.

Conclusion/ Discussion

After analyzing the collected data, it was crystal clear that majority of undergraduates were interested in using books rather than using printed journals, e-resources and theses of the library for their study purposes. Students replied that books were very useful and other materials were somewhat useful. At the same time majority of undergraduates were satisfied with the resources and services that the library offered to cater for them who are the users. The undergraduates of the sample of the study highlighted as the problems in OPAC searching the main catalogue of the library as the major barriers for accessing the library resources. Besides, inadequacy in recommended readings, less support of the library staff, limited hours of library opening and unawareness of the services and resources offered by the library were the other barriers that they faced.

Recommendations

The major findings of the study enabled to recommend a few changes to improve the quality and effectiveness of the resources and services that the library offered. The collection of the library should be further developed to meet the new demands with the relevant recommended readings of the subject areas. As an academic library, the University of Kelaniya should be worked as a service-oriented institute. In that respect, the staff must be fully involved in that

process with professional vigor. They must whole heartedly attempt to exceed their customers' expectations. Further, the library should conduct more user-friendly awareness programs to make the users aware of the resources and services offered by the library. Introducing new tools for researching the collection in the library and displaying the entire collection to the users are very important. That will unequivocally upgrade the user satisfaction towards the library.

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Usage of Home Reading Corner: Experience from Kids of Sri Lanka

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Abstract

Reading corner is an area of a room set aside for books, especially one intended to provide a quiet or comfortable place for reading (www.lexico.com,2021). Its history has gone to the mid-19th century. Studying knowledge status of Sri Lankan kid's regarding home reading corner, Introducing the home reading corner and maintaining method for kids, identifying interest & ideas of kids for home reading corner and introducing simple exercises to create DIY home reading corner at their home were objectives of the study. With the above objectives, case study method used for the study. Kid's interest reading home reading corner, creating DIY library, using books and maintenance, decoration of reading corner, creating bookmarks are revealed from the study.

Key word: Reading, Reading corner, DIY library, Kids of Sri Lanka, Primary education

Introduction

Reading corner is an area of a room set aside for books, especially one intended to provide a quiet or comfortable place for reading (www.lexico.com,2021). According to history, this concept has been used since the mid19th century. However, this concept changed, grew and was replaced with time. This concept is used in most countries, institutes, schools, preschools and own houses differently. Most commercial institutes, public organizations, Libraries implement the reading corner concept. In 2008, Raising Readers in Story Country of England created a reading corner toolkit. However, this concept is new for Sri Lanka and Sri Lankan kids.

Basically, held a programme regarding home reading corner to kids of Sri Lanka selecting randomly in the last literature month. Hundreds of kids registered to the programme.as well as introduced creating DIY library concepts to them. Specially studied their home reading corner, decorations and bookmark creating. Most of them are very interested and maintain their home reading corner.

DIY Concept and home reading corner

According to Cambridge dictionary DIY is "Do- It- Yourself: the activity of decorating or repairing your home, or making things for your home yourself, rather than paying someone else to do it for you. This concept is used in the library field now. It's a very valuable and important thing. DIY related to all fields. This concept engages with the home reading corner. It's a very useful thing to a person. The DIY concept can be used for a home reading corner. DIY home reading corner concept many famous things in overseas countries. However, this concept is

very important to kids. Because they implement a kid's mind and way to think out of box activity through this. How to create DIY library holders, book categorizing, book identifying separately and how to do book protection, how to create a reading corner using DIY, how to decorate reading corner using DIY are done by researchers for kids. Usage of home reading corner on low status of Sri Lanka. Studying Status of reading corner at Sri Lanka, introducing home reading corner using DIY concept & Identifying Interest of Students for the home reading corner were mainly focus of this study. DIY reading corner at home is very successful for implementing reading behaviour and to develop out of box activity for kids.

Objectives

- Studying knowledge status of Sri Lankan kid's regarding home reading corner

- Introducing the home reading corner and maintaining method for kids

- Identifying interest & ideas of kids for home reading corner

- Introducing simple exercises to create DIY home reading corner at their home

Methodology

The case study methods used for the study. The kid's WhatsApp group of Sri Lankan Read plus Organization's selected as a population for the study. Those all members were selected as the sample for the study. All kids attended to all activities as well as created their own reading corner at home.

Results

Following activities were used for the kids who attended with the programme of creating a reading corner at home. Regarding the interest of a kid's home reading corner, creating a reading corner, DIY library, decoration of reading corner, creating bookmarks were among them.

Interest of kid's home reading corner

Reading is a good habit for people. Many people have trained since the little age of their babies for that. It is a new thing for the Sri Lankan environment. Introduced concept of home reading corner and situation regarding overseas countries by the researchers. As well as the researcher presented using attractive pictures for that. Because Could Identified students appear during the programmes. This concept is very valuable for the minds of kids. Special as in the covid 19 situation. Many questions were getting into the programme among the kids. It increased kids' interest and engagement for the programme. After the programme kids mentioned many interesting ideas regarding home reading corner. Finally, they promised to create their reading corner at home. That was a valuable concept for kids. Kids' interesting comments were very

positive. Home reading corner is important, creativity and timely activity for kids.

Creating a reading corner

Introducing a reading corner at home is very interesting to kids. The programme communicated readings creating their reading corner at home for them. In the programme researcher introduced regarding creating a home reading corner. as well as the researcher who introduced a simple method to creating a reading corner using free space in the house. It wants a small quiet space to create a reading corner. as well as not needing special requirements for creating that. Using a sofa, chair, and any comfortable environment suitable for kids to use as a reading corner. Kids can play, read, sleep and do their activities using their reading corner. especially when they commented to the researcher about that. After the programme kids mentioned many interesting ideas regarding creating a home reading corner. Finally, they promised to create their reading corner at home & maintain. That was a creative activity for them. Kids interest comments were very positive and happy. Creating a reading corner at home is important, creativity" valuable and an activity for kids.

DIY reading corner at home

DIY means Do-it- "Yourself". It's mostly related to the reading corner and library. This concept is used for the library field. It's many suitable for home reading. Because home reading corners can be created ourselves. It is most useful for kids. Used cardboards, A4 sheets, Maker pens, milk powder box, biscuits box were used to create library racks, book holders, bookshelves for home reading corner.

How to create DIY library holders, book categorizing, book identifying separately and how to do book protection, how to create a reading corner using DIY, and how to decorate reading corner using DIY were taught by the researcher for kids. Finally, they commented to create their reading corner at home & maintain. That was a creative activity for them. After the programme, photos regarding their DIY reading corner kids were shared with me. Kids' interesting comments were very positive. Using DIY to Create reading corner at home is important, creativity" valuable and an activity for kids.

Decoration of reading corner

This activity was implemented by kids after they taught. Making pencil holders, putting pictures, putting toys etc… are included there. Plastic bottle, flip chart papers/ newspaper, marker pen, A4 sheets used for that. How to make a pencil holder. After the activity kids created pencil holders according to their own ideas. The main thing they had created as the example of researcher. Decoration reading corner was a creativity activity for them. There were

many valuable things to see out of the box. Kids commented were most positive. Further, Adding DIY decorations and putting any other materials at home reading corner successfully and interest for kids.

Creating bookmarks.

This purpose is teaching how to protect their reading materials. After reading how to put a mark using a DIY bookmark, I mainly focus on that. Making interesting book marks taught by researchers. Card boards, A4 sheets, markers were used for that. Kids also created many bookmarks as instructions of researchers. It was a big lesson for them. Kids' comments and reactions were most positive.

Conclusion

Home reading is a more important thing for kids. as well as using the DIY concept most useful for that. Information regarding creating DIY library holders, book categorizing, book identifying separately and how to do book protection, how to create reading corners using DIY, how to decorate reading corners delivered to kids by researchers. Creating DIY home reading corner, decoration, usage of books and conducting helpful to developing knowledge, activity, attitude and mind. Furthermore, its most important thing is to increase reading behaviour of kids.

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Personal Digital Information Management practices among University Academic Community: A Case Study

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Abstract

Personal Digital Information Management (PDIM) is exceedingly important in this information era. Digital information plays a significant role in the present academic context, since university academia extensively uses digital material. Though the university academia promptly worked with digital information, limited studies were carried out in the Sri Lankan context. Hence, the literature is lacking in this regard. Objective of this study was statistical analysis of PDIM keeping and organizing practices of Uva Wellassa University academics. The study explored the PDIM practices in relation to organizing and maintaining information of university academics at Uva Wellassa University, Sri Lanka using a questionnaire as a research tool. According to the finding, the tested cohort was awarded the importance of managing personal digital information and nearly half always tried to do so. Most preferred to store web content on their computers and laptops were the most common location for storing personal digital information. They averagely used three digital devices where laptop and Smartphone were the most commonly used digital devices. The cohort preferred to organize information in folder wise in their computers according to the content. Almost one-third of the community believed in cloud based storage services. Almost half of the respondents chose the format of the document that is best known to them, while a handful were interested in voice formats. Zoom was the most familiar social media platform and the main purpose was to share information. The study suggests and recommends conducting more qualitative research on the meta-level personal digital information management practices using more different cohorts from the different universities to generalize the findings.

Keywords: PIM, Personal digital information management, Personal information management

Introduction

Digital information plays a significant role in the present academic context, since university academia extensively uses digital material. Though the university academia promptly worked with digital information, limited studies were carried out in the Sri Lankan context. The correct information management will reduce the piles of information and will guide the correct information to the correct person at the correct time, as each form of information is organized and used to complete different tasks and to fulfill disparate roles and responsibilities in an individual's life (Jones & Teevan, 2007).

Personal information management (PIM) is a new field with ancient roots. It is generally considered that the modern dialog on PIM came up with the article "As we may think" of Vannevar Bush in 1945. Jones & Teevan (2007) defines PIM is both the practice and the study of the activities people perform to acquire, organize, maintain, retrieve, use, and control the

distribution of information items such as documents (paper-based and digital), web pages, and email messages for everyday use to complete tasks (work-related and not) and to fulfill a person's various roles (as parent, employee, friend, member of community, etc.). Further, they have grouped essential Personal information management activities into *Finding/re-finding activities, Keeping activities and Meta-level activities.*

Capra (2009) carried out studies at the University of North Carolina communities' practices in managing their personal information and transferring information among computers and electronic devices. Krtalic, Marčetić, Micunovic (2016) carried out studies to identify habits and practices of archiving personal digital information among students from four different Croatian universities. In Sri Lankan context, De Costa and Balasooriya (2019) had carried out a study to identify the methods of digital information management and information requirements of Open University of Sri Lanka academics. The literature is lacking in the Sri Lankan context as limited studies were carried out though the university academia promptly worked with digital information. Without organizing the information properly, it becomes difficult to re-find information. A well-managed personal information space improves the quality of teaching and learning and provides relevant information when they need it (Diekema and Olsen, 2011).

Objectives

The objective of the study was to statistically analyze personal digital information management in terms of keeping and organizing practices of academics of the Uva Wellassa University of Sri Lanka.

Methodology

As the quantitative research method was revealed as the widely used method for the explore PDIM research practices (Warraich, Ali & Yasmeen, 2018), the same was incorporated into this descriptive study. A comprehensive literature review was followed to design the questionnaire and the questions were adopted from the study of Krtalic, Marčetić, Micunovic (2016). To meet the objective of the study, the questionnaire consisted of twenty-two questions (both close and open-ended questions) about Where *and how do they keep digital information? On which device? In what form? Do they be filed or left in a pile of information? How do they organize information? were asked from the sample selected.* The draft questionnaire was evaluated by three subject experts and the suggestions were incorporated for the final version.

The target population (N=179) was the Uva Wellassa University academic staff members. The sample (S=87) was selected using disproportionate stratified probability sampling techniques. Population was divided into five strata as into a library and four faculties. The sample consisted

of Professors, Senior Lectures, Lecturers and Librarians of the university. What is the sample size of each strata?

Limitations of the study as follows. As Digital Information is a pervasive aspect of the present digital era, this study only focuses on Personal Digital Information Management in the university academies. The sample was limited to academics of the Uva Wellassa University of Sri Lanka. The questionnaire distribution was limited to email only due to the prevailing situation. Data was collected within a short period of time.

Results

The response rate was 71.2% and among them 56.5% male and 43.5% female, within the age range of 25-60. 54.8% of the respondents strongly agreed that it is important to manage their digital information, while 46.8% were always trying to organize their information.

The average number of digital devices they have commonly used were three, while maximum recorded as eight. Results depicted the most common use of digital devices as laptop computers and smart mobile phones.

The most common methods used to organize information in computers were folder wise according to the content type (75.8%). 58.1% of the respondents delete irrelevant or obsolete documents that they feel are not important anymore, while only 8.1% respondent stated that they never delete them.

Laptop computers and external hard drives (90.3% and 41.9% respectively) were identified as the most common locations for storing personal digital information among the community. Out of respondents, 72.6% store the web content on their computers and 56.5% through bookmarking in their web browsers. More than half (71%) of the respondents stated but, sometimes they store the same piece of information in more than one location and 61.3% access them data only when needed. More than one-third of the respondents (79%) mentioned that they always backup their official documents. Out of the respondents 74.2% stated that they believe in cloud based storage services such as Dropbox, Google Drive, Microsoft OneDrive etc.. are a reliable way of storing PDI. Common challenges they faced while keeping backups were insufficient storage space.

When considering the formats, 43.5% choose document formats that are best known to them. Only less of them (33.9%) use voice recording formats. Most academics (82.3%) are familiar with Zoom social media platform. The majority of the respondents (79%) used social media platforms for sharing information. Your findings should be sub-themed as per the questions that you have asked in your questionnaire and described above.

Conclusion and discussion

Study revealed that the majority of the academic community is aware of the importance of managing their personal information and most of them always try to manage their personal information.

Discussion should also be organized as per the questions that you have asked from the sample and described above.

The study results regarding saving information found on the web were somewhat differ from the findings with Capra (2009), as in his study almost all participants reported using bookmarks and in this study it was recorded as 56.5% while majority 72.6% of the community tends to store web contents in their computers. Almost similar facts found among both studies were that in his studies 75% considered their notebook computer to be their primary computer and in this study most common digital device used was laptop computers.

The study found that almost one third 74.2% believe in cloud based storage services, and the finding was almost similar to de Costa and Balasooriya (2019) that they stated Google drive is the most popular storage medium among their cohort. Furthermore, while considering the most frequently used digital devices both communities showed some similarities and differences such as;. in this study laptop computers and smart mobile phones were the most commonly used digital devices among the academic communities, while in their studies mobile phones, desktop computers and laptops were the most frequently used digital devices.

Saeed & Arshand (2020) studies found that majority of 101 (51%) of the respondents of students of Institute of Engineering and Technology and Punjab University College of IT, did not use social media to keep personal data, though, 98 (50%) used social media for storage of informal digital data like pictures and videos, etc. In this study, it was found out that more than one-third of the academics (82.3%) stated Zoom as the most familiar social media platform and the main purpose was to share information.

Conclusion

Recommendations and suggestions

The study suggests and recommends conducting more qualitative research on all meta-level personal digital information management practices using different cohorts from all universities of Sri Lanka to generalize the findings countrywide.

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Blockchain Technology: Its Implications and advantages for Libraries in Sri Lanka

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Abstract

Blockchain technology is primarily used for securely transacting in a digital environment by verifying and maintaining a transaction record in a distributed, time-stamped way. Objectives of the paper to Understanding of blockchain technology and how it works in Library environment, review of literature of blockchain technology and its potential uses and discuss the connection between blockchain technology for future libraries in Sri Lanka. Library Information Science Technology Abstracts, Google Scholar, Emerald, Taylor and Francis and Scopus databases and blockchain management or blockchain technology or libraries were used as search terms. Study revealed that blockchain technology is increasingly being used in libraries for a variety of purposes, including improving metadata systems, safeguarding digital first sale rights, and peer-to-peer sharing. Further studies recommended to be held to exploit this technology to a maximum level for the benefit of libraries in Sri Lankan context.

Keywords: Blockchain management; Blockchain Technology; Libraries; Sri Lanka

Introduction

Blockchain is a relatively new technology that works as a basic system for bitcoin operations and many other technology-based operations. Bitcoin, the cryptocurrency, was first introduced in 2008 by Satoshi Nakamoto, who acts as a digital token for online transactions (Hoy, 2017). Blockchain is a method of storing data in such a way that it is difficult or impossible to alter, hack, or cheat it. Each block in the chain contains a number of transactions, and each time a new transaction takes place on the blockchain, a record of that transaction is added to the ledger of each participant. Blockchain is important since blockchain delivers immediate, shareable, and entirely transparent information kept on an immutable ledger that can only be viewed by permissioned network users.

Research Problem

The technological advances have not gone unnoticed by library personnel and consumers; in fact, they have had a significant impact on them. As a result, it is critical that they comprehend emerging technologies such as "Blockchain" and how it functions. What is the best place to apply to meet users' needs? and what are the potential benefits and risks while applying blockchain technology to libraries in Sri Lanka.?

Research Objectives

- Understanding of blockchain technology and how it works in Library environment

- Literature review of blockchain technology and its potential uses

- Discuss the connection between blockchain technology for future libraries in Sri Lanka.

Research Methodology

A literature search was conducted in January 2021 using five databases: Library Information Science Technology Abstracts, Google Scholar, Emerald, Taylor and Francis and Scopus. Time limits were set to include all the published literature, when commercial Internet service providers began to emerge, through 2021. Search terms were selected to retrieve articles on a single concept, block chain technology for libraries. A broad search of the literature was conducted first. Search terms were: [Blockchain management or blockchain technology or libraries]

Literature Review

These are just a few of the studies that Blockchain exhibits as a subject of study in libraries through the search for literature around the world. Relevant studies can be found in other areas such as banking, medicine, healthcare, business management and the supply chain. Blockchain has been the subject of heated debate on various online platforms. Chen, et al (2018), Turkanovic, et al (2017), Shaples &Domingue (2016), Rooksby & Dimitrov (2017) Dominguez & Bachler (2018) and Grather et al (2018); Hirsh&Kim(2019); Li Zhang (2019); Rubel, D. (2019);Kushwah (2021). Examples of current and future potential applications of academic blockchain technologies include the issuance of valid certificates, summary evaluation of learning outcomes, student grade storage, enrollment in online course courses, and digital payments. Regarding blockchain applications in libraries, Hoy (2017) suggested that blockchain technology could easily be used to collect, store, and share authorized information. It can also be a solution to prevent copyright issues, as it produces a uniquely authenticated report that is difficult for an outsider to reproduce. Further study suggested the technique of creating a timely and verified version of magazine articles. The study also revealed that the negative side of blockchain is technological complexity and environmental sustainability. Similar barriers are shared by Jasson (2018) of ZBW Media Talk, an online blogging site. Study revealed inefficiency of library professionals in developing such innovative technology in blockchain for libraries. Law libraries have another potential to verify primary legal documents, as suggested by Debbie (2017). Coghill (2018) noted the potential of blockchain to transfer funds from libraries to vendors and to maintain electronic receipts as digital evidence. As this technology continues to accelerate in various areas of libraries and related operations, more basic capabilities of blockchain need to be proven in the coming days.

Conclusion

Blockchain is a popular technology that has the ability to transform a library into a smart library. The library's mission is to collect, store, and disseminate authoritative information. This may be done in a distributed, timestamp-based fashion with the help of blockchain, which can also validate the record of creation and ownership. According to the literature review, implementation of new technology in the library or academic environment is much slower than in the tech world but exploring the latest and trending technology is the need of the hour for uplifting library culture in most countries in the world, and literature revealed that blockchain is one of the vast and unexplored areas of research with both challenges and opportunities for library professionals. Blockchain technology is being investigated in a wide range of fields, and its security features are unparalleled. Apart from those already mentioned, the technology is ideally suited for academia and gaining potential pace in libraries. It can be used in libraries to protect user records, document library acquisitions, checking plagiarism, scholarly publishing and improve collection maintenance. Also, special collections applications may enable for the identification and discovery of unique holdings. (see Figure 1.)
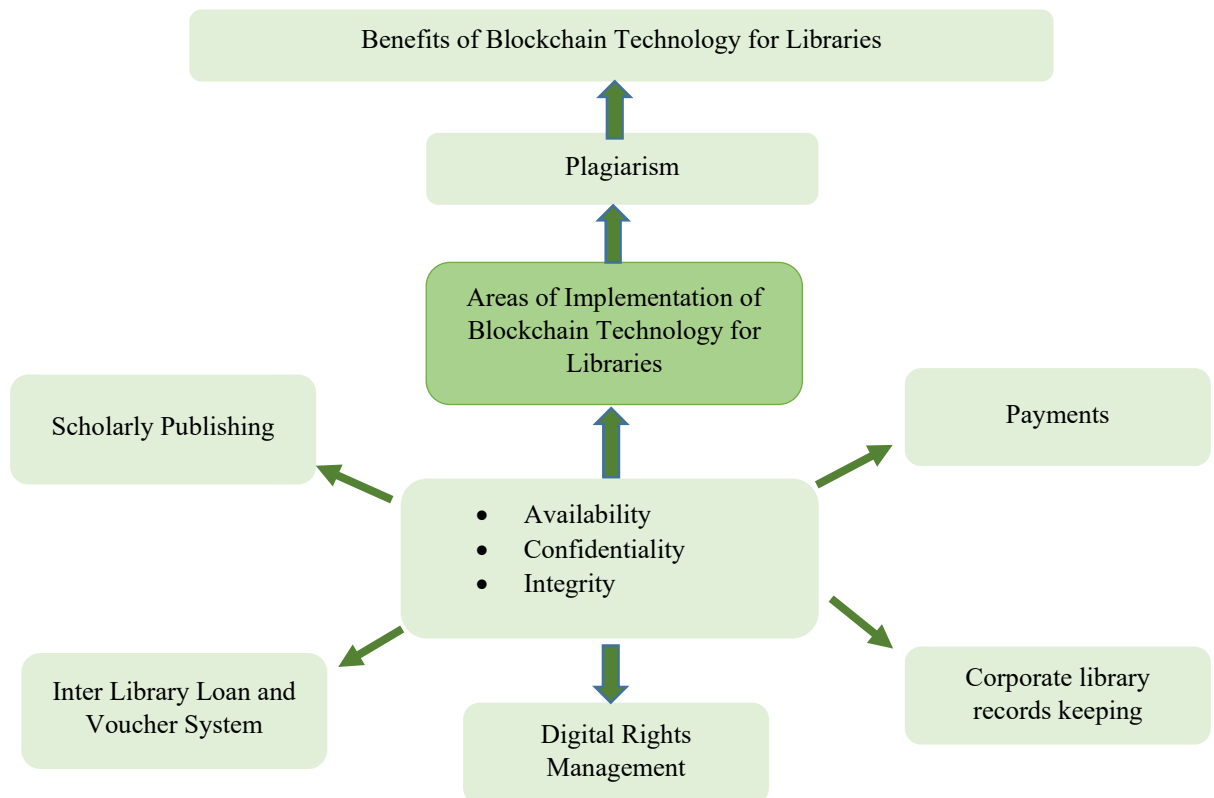
Figure 1. Mapping the Areas of Implementation of Blockchain Technology in Libraries Based on the Reviewed Literature.

Recommendations

Another use case that lends itself to blockchain is the scholarly record, which allows researchers to record and date their thoughts and spread knowledge. Libraries have a huge chance to leverage blockchain technology to improve user privacy, collaborate more effectively, and revolutionize how they collaborate with one other and their communities. In the near future, it is projected that the technology will be more widely used in a variety of settings, including libraries and information centers. Further studies recommended to be held to exploit this technology to a maximum level for the benefit of libraries in Sri Lankan context.

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VAFA Map: well use of academic library resources and services by providing better visibility, availability, flexibility, and accessibility

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Abstract:

Academic libraries are enriched with diversified resources and services. Libraries need to take necessary actions to make the better use of its library materials by every possible mean. The growing information communication landscape has resulted many alternatives for the conventional library services and even more new information services. However, the libraries are still serving the society with equality among different social levels. To withstand and sustained in the competition, librarians need to attract and provide a delightful service to its patrons. showcasing the library products and services to its users is a timely necessity to promote and ensure the better use of library materials. Conventional libraries need to be transformed towards hybrid type of libraries, even a paradigm shift if necessary to secure the competitive advantage over the alternative services in the information services ecosystem. Attracting more users in the community will ensure the sustainability of the library, including funding. Visibility, availability, flexibility, and accessibility (VAFA) are simple but effective strategies for showcasing the intimacy of a library to its society. Libraries can consider about these strategies to visualize it products and services to a larger community and sustain. Thus, this concept paper attempt to map these four strategies to be used by the librarians to lead their libraries towards well used and sustainability. VAFA mapping will contrast the diversity of resources and services available in library, methods that can be adopted to overcome the constraints that prevent their visibility, availability, flexibility, and accessibility from a larger community. Accordingly, libraries can restructure their library processers, and policies to implement new services by overcoming the limiting factors of information dissemination. Making a VAFA map will enable the library to showcase their product and services, attract more community share, lead the library towards the sustainability while becoming a challenging competitor in the information landscape.

Keywords: *VAFA Map, visibility, availability, accessibility, flexibility, academic library, library marketing*

Introduction

Libraries are bridging the information gap of a society, whatever the social fraction they served (Senevirathna & Fernando, 2021). Academic libraries are special kind that disseminate information with guaranteed precision and responsibility. Specially because academic libraries are providing the information needs of scholars for their studies and research. Academic libraries are taking enormous effects to enrich and ready their library collections to be utilized by the desired users. As Dr. Ranganathen argued, "every book should have a user and every user shall have a book to read" (Haider, 2017). This implies that how much the librarians need to be understood their patrons and their information desires. Thus, they can manage the limited

budgets, investigate the reader's needs, consider about the up-to-date nature about the relevant collections. However, it is also a valid fact that how far librarians are worried about the extent that their collections are accessed or visited by the target population. In the other hand, unless the library has taken a continuous product and services awareness, users miss out the library's best services.

Library marketing practices can aware the user base of a library effectively (Canzoneri, 2015). However, the new normal situation after the covid pandemic has reshaped the user base of a library not limited to its own region, but many other anonymous users around the world (Panda, 2020). In the other hand, even though the marketing aware the user base, services that limited to the physical visitors its worth less. Thus, the library may need to have a better plan to ensure visibility, availability, and accessibility of their library's resources through all the possible platforms they have.

Visibility of library materials is, how far the library users can see its collections, and services. At the same time, visibility of the library itself in the society is matters. Lor (2014) argues that the visibility of a library in a society is dependent on the type of the library, wealthiness of the country and political landscape (Figure 1). Availability of library materials is dependent on the mode and nature of library materials, time constraints that information is available to its users. Mode of availability can be printed, or non-print, physical or online, free or fee type, open access or closed access. Time constraints, whether it is available for a short period of time and days, or the information is available for 24 hours through the day 365 days per year (24x7x365). Accessibility of library materials is the possibility of access to library materials without a spatial and temporal boundary. Accessibility to library materials is dependent on the capability of mode, type, and time of access to library materials. Renewed focus on the flexibility also matters while the libraries are managing their visibility, accessibility, and availability to information and to collaborate and interact with the other organizations in the information landscape.
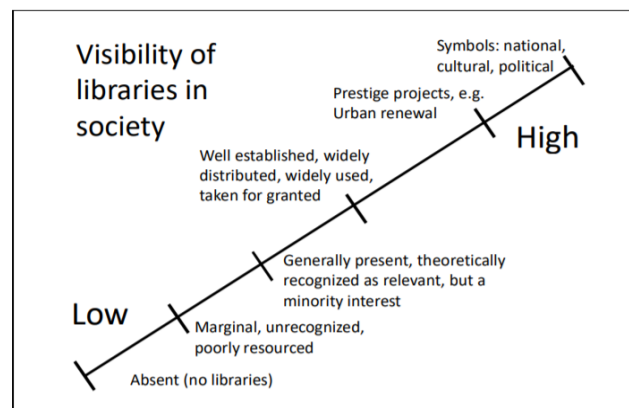
Figure 4: Visibility of Libraries in society

Problem

Changing information needs of the society has putting immense pressure on academic librarians to keep the library top-of-mind and promote their libraries. It is also a high need that the library is branding and marketing as a relevant, user-oriented, social, and highly visible, accessible, and flexible platform that available any time to access in the context that its matters. Libraries usually conduct SWOT analysis to improve their library services. However, academic librarians shall map their resources and possible strategies aimed to reach to a larger community to provide a more diverse service to the changing community. There is a lacuna for the concept of mapping library resources and how to reach them to a wider community.

Objective

Study is aimed to introduce the concept of mapping library materials and the possibilities of reaching those materials to a wider community.

Method

This conceptual study is based on the working experiences and theoretical data collected through a literature survey. Literature survey only targets most relevant and recent publications to the concept. Different searching techniques were used to find information related to visibility, availability, accessibility, and flexibility of libraries and its materials. Gathered concepts were mapped using the mind mapping technique to identify and articulate the available materials and possibilities of reaching those materials to a wider community effectively.

Results and discussion

No matter how comprehensive the library collection is, if not provide enough visibility, availability, and accessibility to the library materials consisted, they aren't use by the users effectively. It's not covered the basics principles of the library services. Because, every book (or service) shall have users, and every book (or service) should be used by some user (Haider, 2017). Application of suitable marketing techniques is one of the key approach that can be taken by the librarians to promote their materials and services (Johoran & Somaratna, 2021). Thus, Academic libraries should map their resources and the strategies that can open those library services to a wider patron base. Investigation reviled that, there are multiple channels to make the good use of the academic library resources and services, to get more attention towards the library (Johoran & Somaratna, 2021). At the same time, there are constrains that prevent the library social move and free distribution of its library materials. Some of these constrains and enhancing the Visibility, Availability, Accessibility, and Flexibility are mapped in the

Libraries shall identify their resources and services, types, formats, and copyright constrains associated with the library materials they have. Information can be in different formats, printed or non-printed. Non printed library sources and resources can be deposited in multimedia formats or online formats. The online services could be in a remote server, stored in computers of the library, hosted/ outsourced using a cloud platform or available through the internet. All these sources and resources also belongs to different types of information as primary, secondary, grey literature, and tertiary sources. These information sources or resources is under a copyright constrain as, copyrighted, or open source. The opensource materials could be under the creative commons license, or public domain. Identification of "what the library actually has" is the initial step of this mapping.

To make library materials available, accessible, and visible, to a wider community, library needs to control the factors that prevent those aspects. One of the key constrains that matter is the copyright that prevent sharing of the materials with a larger community. Print nature of resources can be a constraint in situations such as pandemic lockdown times, that prevent physical visitors to the library. keeping some of the library resources as grey literature is another barrier for its visibility. Theses and dissertation collections are examples for such grey literature. Not adoption of desired software solutions is another preventive measure of public awareness of library resources. Some universities and library administrations may band social media connectivity through the university networks depending on policy issues. Policies that prevent the inter-library or inter organization collaborations to share metadata and other library materials is also a flexibility issue that matters. Academic libraries are closed to the public. If this policy barrier could lift off, library materials will be available to a wider community. Public relations and collaboration with other related institutions should also be considered and included in the mapping is essential.

Information and resources that are copyrighted to the library or the university can be share with a larger community. Institutional repositories, Library management systems, library websites and other possible platforms can be adopted to share library materials with no copyright constraints. Since these copyleft materials can be transformed, if they are available in the printed format, they can digitize and disseminate. Bibliographic information of printed materials can be openly shared using the KOHA integrated library management system. This information can also be shared with collaboration with other libraries in the country as a metadata harvester, metadata provider, or through the OPAC. Digital libraries and institutional repositories can share their metadata via the OAI-PMH protocol. Libraries needs to update their policies more flexible to promote collaboration.

Union catalogue can be formed by collaborating metadata of all the OPACs through an open metadata sharing protocol (OAI-PMH, MARC or Dublin core). Union catalogue will provide more visibility to the library materials available in all the stakeholder universities. This step needs to have the flexibility of the organizations to collaborate and share it resources with the other partner libraries. Library resources under the copyright constraints can disseminate through the Digital Document Delivery Service (DDDS) and Inter Library Loan (ILL) services. Thus, a portion that not enough to reproduce the original work can be digitized and shared to the user for their fair use purposes only. Services such as SMS, emails, real time help support, using social media to connect, disseminate, and resolve the users matters will be a good practice to keep the customer base of the library delighted about the responsiveness of the library.

Social media is the most effective and efficient tool and medium that can be used to take the library to larger community. Social media include number of web 2.0 technologies that most of the world's population relates to. Library can easily adopt these social media links to the library to gain more visibility to its products and services (Johoran & Somaratna, 2021). Social media platforms are different types. Social networking (Facebook, Twitter, Instagram, Pinterest, WhatsApp, Viber, Imo, etc), Social review sites (Google my business, Facebook, Amazon, Yelp, Trip Advisor, etc), Image sharing site (Instagram, Pinterest, etc), video hosting site (YouTube), Community blogging (Google Blogs, Wordpress, LinkedIn, etc), Discussion sites (Stack Overflow, Quora, Reddit, etc), News sites (Google news, MSN news, local news sites, etc), Business social media platform (LinkedIn, Twitter, etc), Research social media channels (ORCiD, Rresearchgate, Academia, LinkedIn, Author Aid, etc), These services must be used with a responsibility and understanding as be suited with the need of the institution. It is also need to advice to get prior permission before enabling these services and create a dedicated official email address to create and maintain social media links. There are many other similar online platforms that can be used to populate library services. It can use to enhance the visibility of the library and library services. These services are with a huge diversity and intend to perform different tasks. However, there is one thing common in this social media connectivity, that everywhere it connects people. Different people from different social levels and capacity. So, the library can easily reach to vast diversified community over these technologies.

Social outreach of the academic library is the next approach that can be taken to populate and to promote better use of library resources. Social outreach programs, awareness programs, orientations programs, webinars, seminars, library visits, are the popular types of outreach channels. School libraries, public libraries, national library, museums, special libraries, university libraries can collaborate and exchange knowledge and capacity building endeavors. Museums can showcase their key materials using virtual museums (like Google Arts & Culture). It can better use of the library or information centers resources and save lot of money

to the country.

Taking the library to the public and use the library resources effectively is a timely necessity of academic libraries. Specially to adapt to the emerging needs of library transformation in the era of Google and the time of 5th Industrial revolution. Libraries need to face the growing pressure of the competition from similar services that overtaken the traditional library role. Academic libraries need to restructure its major aspects to gain the competitive advantage in the information service provider's landscape.

This concept paper highlights the validity of conducting a separate mapping based on the libraries SWOT analysis, but separately. University administration and library staff needs to be aware and sometimes trained to achieve some of these aspects of well using the library information over a wider community.

Conclusion

Library is a social aspect that enables everyone to use to fulfil their information needs. It is a major enabler of information democracy of the population. Thus make the library materials and services available anytime from anywhere, let library resources and services visible to a larger community, and enable provisions to access to the library disregarding social and temporal boundaries is essential. Academic libraries can identify and develop a VAFA Map to ensure the better use of library materials and services would be a timely need. Libraries can use the VAFA map to revise their library processes, and policies accordingly. VAFA maps of each library in the country can be overlap to provide a national level network of library service to the national and international library users.

Recommendations

Academic libraries can develop an identical VAFA map to their libraries. Accordingly, their processes and policies can be revised. Better communication channels should be established and need to take actions to make the academic library a real social asset.
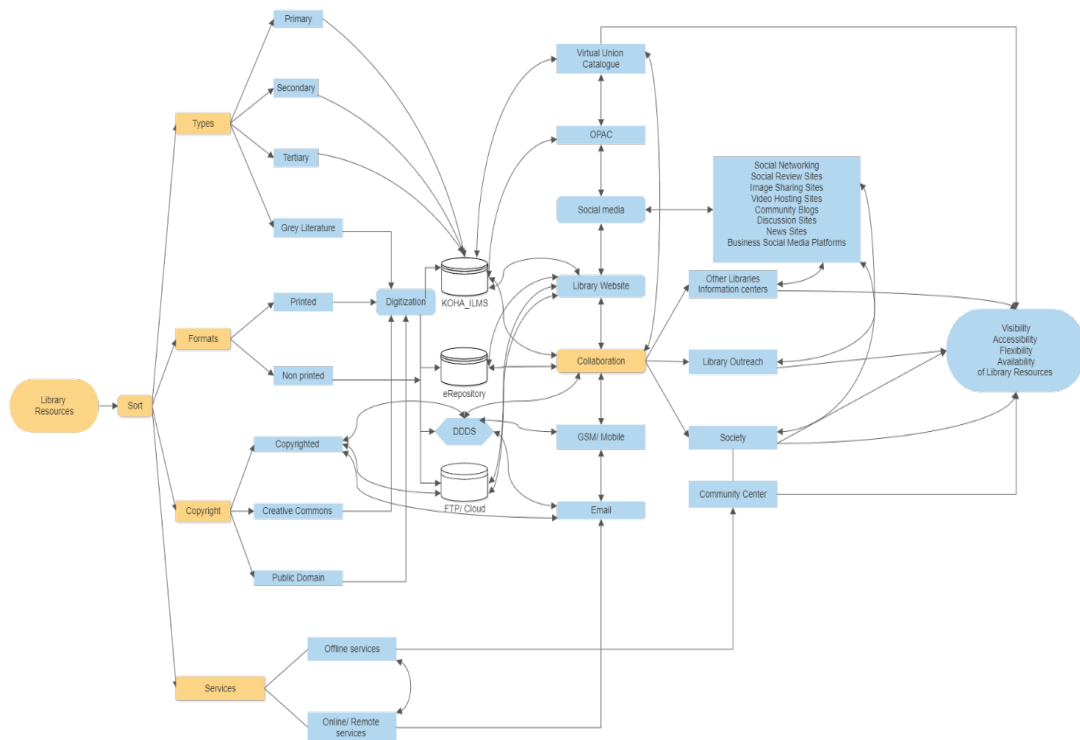
Source: Author Compiled, 2021

Figure 5: Visibility, Availability, Flexibility, and Accessibility (VAFA) Map

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Effectiveness of the Canvas Learning Management System: Students view of the Nawaloka College of Higher Studies.

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Abstract

Remote education is the current trend in the education sector and it's accelerated with the current pandemic situation throughout the world. Students do not need to attend class physically but there are several advantages and disadvantages. To achieve this goal of remote education different kinds of tools are used by institutes, universities, and colleges. The Canvas is one of the LMS systems and this study's major objective was the effectiveness of the Canvas by the students' view. This was good for understanding students' ideas about this LMS and under those results, College can develop its design to make students satisfied as well. The survey research method was used for the study and the data were analyzed from covering objectives.

The study revealed most students were not getting its advantages and some of the tools were not using much. They did not have enough training about Canvas and its tools. Students responded as some of the tools are advanced to use easily. Within these comments, it can be designed to use the easy way. The survey recommended workshops, students' feedback and a survey in teachers' view about Canvas from time to time will be good to make to carry out student's educational purposes for a long way.

Key words: *Online learning, Lerning management, University library*

Introduction

Nawaloka College of higher studies is one of the premier higher education providers in Sri Lanka with linked Swinburne University of Technology, Australia. The offering courses are Foundation and Diploma Programs and the top-up programs. This study was selected only for diploma programs students using five departments. Diploma in Business, Engineering, Information Technology, Health Science, and Hospitality & Event Management. With the Covid pandemic situation of the world, every area was looking at their works through the online Education sector and also went to do online education as a result of this college started remote education through Canvas LMS.

Canvas is a web-based learning management system used by around 400 educational institutions for success. Their story brings out the best education for students. With this Canvas can be given access to every educational work and manage online courses. The institution can create and present online learning materials and assess student learning, students to engage in courses, and receive feedback about skill development learning achievement. Canvas includes the following six standard user roles: Admins, Designers, Teachers, Teacher Assistants, Students, and Observers. As per the role, the canvas will change its mode as an example: Admin

can create profiles, add courses and students can work on that provided platform only. In recent times the online e-learning platforms have increased with the development of information communication technology. The Canvas LMS was created by the US instructor Company. Then students when enrolling in their units should have made their Canvas profile, it has some advanced process and the College is advising and supplying guidelines to make it because every student is learning things and the matters are looking, doing through the Canvas. With this canvas, students are allowed to view multimedia lectures, communicate with teachers, download course materials, take online quizzes and submit homework and class work assignments. In addition, many students' matters can be solved. With these expected benefits, it's good to see how students are approaching this. If we are looking at student views about this Canvas can be sorted out if they have problems with this.

Problem Statement

With this covid pandemic institution, online education is in high demand and education institutes implement different kinds of systems to provide good and better education experience for their students. But some of the problems are there in online education, there are many questions. Are they satisfied with the online education mainly the systems used by the institutes are quality standard systems or not? The course fee is the same as face-to-face classes and online classes. Internet fee is additional expenses for the online education. Internet problems and the slower connection problem also is the main issue Sri Lankan people are facing. When login into canvas students should be pre-ready installing another app called MFA as a security protection app. Without this app, the canvas is not working. So students should have a medium knowledge to make the canvas app properly. The most important thing is Canvas tools. There are many tools in the Canvas and students have not good usage of most tools. Main problem is this survey.

 Objectives

The principal objective is to study the effectiveness of the Canvas LMS system. Under this objective, the study is going through deeply to achieve other objectives. Those are

- To examine student's satisfaction with the Canvas LMS system

- To examine Canvas LMS issues facing by students

- To identify problem resolving key things of Canvas

Methodology

The study method is the survey research method. This study was conducted on a sample of 20 students from the five programs. The five programs are Diploma in Business, Engineering,

Information Technology, and Health Science. The population is Diploma students in Nawaloka College. 100 Structured questionnaires have been provided through the Google forms and 95 answered forms were received back. Data analyze part done with the tables.

Results and Discussion

The first part of the study examined the students' reactions to the use of Canvas tools and several aspects and some of them are tabled as follows.

Table 1: Most useful canvas tool for learning

Most useful canvas tool for learning	Respondents	Percentage
Announcements	60	63%
Attendance	8	8%
Chat	12	13%
Collaboration group sites	9	9%
Discussion Group	5	5%
Grade Book	90	95%
Massage(Inbox)	15	16%
Modules	80	84%
Quizzes	65	68%
Syllabus	70	74%
Webex	12	13%

The findings show that the majority of respondents (95%) mentioned the usefulness of the grade book. There they have to submit assignments, tests, and other reports for examination purposes. So respondents recognized it as the most useful tool in Canvas. The findings show that the 2nd majority of respondents (84%) mentioned their most useful Canvas tool as the Modules. Modules wanted them to join for online lectures. When they click on the relevant module their other tools could be seen on the screen. The syllabus (74%) is a good level as per the students' view. discussion group (5%) mentioned the use seems to be less because they already have different easy tools and software to do more useful discussion.

Table 2: Canvas Tools for very easy to use

Canvas Tools for very easy to use	Respondents	Percentage
Announcements	71	75%
Attendance	34	36%
Chat	35	37%
Collaboration group sites	22	23%
Discussion Group	17	18%
Grade Book	52	55%
Massage(Inbox)	82	86%

Modules	12	13%
Quizzes	56	59%
Syllabus	91	96%
Webex	13	14%

A large number of Students responded (96%) syllabus is the easiest thing to use from the Canvas and the 2nd majority responded (86%) for the message option is easy using the tool in Canvas. Modules (13%) were the hard-using tool in the results. The modules have a lot of options and when login collaborates ultra-sometimes search engines are not supporting and the network issues are also being a problem. Other results as below,

Communication improvement ability through the Canvas (45%) agreed with this from the 95 respondents and the (17%) respondents disagree with this.

Enhancing the Learning through Canvas (31%) most respondents were neutral with this and (21%) disagree with this.

Track the students' progress through Canvas (41%) Strongly agreed and (22%) were agreed. Strongly disagreed (7%) and (15%) disagreed. As per the results of this many students recognized this is good for tracking their progress.

Conclusion and Recommendation

In this covid pandemic situation, distance learning was the key factor in education providers in the government and non-government institutions. As a result of this, it seems to be students focusing on some of the tools in Canvas, unfortunately. As the world recognized LMS, this was a good opportunity to use this kind of international LMS for college students. Creating a workshop to introduce the importance of Canvas will be a good advantage for focus to get benefits from Canvas more than before. And the student's feedback should be recommended to get from each department intake-wise. Moreover, organizational support, interaction, self-efficacy will be helpful to make students satisfied with this Canvas LMS. It seems that some of the tools are not flexible for students, so it can change the design of those tools and make it easy to get involved with those tools in Canvas. Another survey should have been done in future retouching teachers' views also that will be good for the future improvement of the Canvas.

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The Role of Library in the Modern Society for supporting Education to Create a Sustainable Future

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Abstract

Libraries are places of information. Once the majority suppose "library" they assume books. And whereas that's actually true, recently books take completely different shapes, like e-books and audio books. Over simple books, libraries are places of data, providing individuals free access to a wealth of data that they usually cannot notice elsewhere, whether or not on-line, in print or personally. As gateways to information and culture, libraries play a basic role in society. The resources and services they provide produce opportunities for learning, support accomplishment and education, and facilitate the new ideas and views that are central to an original and innovative society. They additionally facilitate the guarantee associated with authentic records of data created and accumulated by past generations. In an exceedingly world without libraries, it might be troublesome to advance analysis and human information or preserve the world's additive information and heritage for future generations. In this paper briefly explore what will be the role of libraries in our modern society in the present scenario.

Keywords: *Social role of libraries, Library mission, Community information, Public libraries*

Introduction

Libraries supply free education and amusement to the plenty which may be a student, Working professional or a common person of a community. It does not matter what your economic standing is, you'll be able to be available and have free access to books that may inform and rework you. Although the utilization of school/college and analysis libraries is proscribed solely to the scholars of that exact school/college however state and community libraries are open for all and anyone will avail the advantages of those throughout operating hours. It might not be wrong to mention that a library is the store-house for books of every kind and on all subjects underneath the one roof. A decent fashionable library sometimes subscribes to all the necessary newspapers and periodicals in order that these are created obtainable to any or all those fascinated by these data sources. Nowadays libraries are advancing their area of work. It is now not limited to physical matter. It can give all the facilities regarding information needs by using 21st century's technology whenever or wherever you want using the internet through online mode.

- Objective of the study

- To explore the society and modern society

- To explore the purpose of the library

- To evaluate the role of library in our society

- Problems of associate library in our societies

- Recommendation how to develop these advantages of library in our society

Methodology & Limitation of the study

Library plays a very important role in our society which cannot be ignored. This study is done by collecting and collating information from websites, blogs and some renowned journals. Also some practical experience and observation regarding the effect of libraries in our society is applied in this paper. "Role of library in our societies "it is a very broad part, so it is not possible to provide all the comprehensive information due to the word limit of the paper. Although in this paper most relevant and important aspects of libraries in our societies were discussed.

Definition of Society and Modern Society

A society, or a person's society, may be a cluster of individuals involved one another through persistent relations, or an outsized social grouping sharing a similar geographical or social territory, usually subject to a similar political authority and dominant cultural expectations.

Modern society brings progress within the type of material abundance. Less definitely, it brings increasing management of the natural and social setting. However, its scientific and technological achievements are of some value to religious and emotional life.

In addition to the segments of the discourse of modernism and modernization that are classified, a structure of essential options of recent society is unconcealed comprising 1) catholicity (invariance) of social development; 2) civilization variability and individuation of cultural programs; 3) release trend and antinomies; 4) permanency of modification and innovations; 5) increase of productivity, fight and also the quality of life.

"Traditional" refers to those societies or parts of societies that are small-scale and are derived from endemic and sometimes ancient cultural practices. "Modern" refers to those practices that relate to the commercial mode of production or the event of large-scale typically colonial societies.

Why are libraries still important in our society?

The primary purpose of the general public library is to supply resources and services during a type of media to fulfil the wants of people and teams for education, data and private development as well as recreation and leisure. They play a very important role within the development and maintenance of a democratic society by giving the individual access to a good

and varied variety of data, ideas and opinions.

Libraries are necessary cornerstones of a healthy community. Libraries provide folks the chance to seek out jobs, explore medical analysis, expertise new ideas, and obtain lost in fantastic stories, whereas at constant time providing a way of place for gathering. The library reflects the variety and character, and also the desires and expectations of our community. Those desires and expectations are usually intensive, and also the services valuable The Library is commonly the sole pronto offered supply of comprehensive data required by individuals for personal, family and job-related functions. Our community's economic advantages once business individuals use library resources to create wise business choices, workers use it to boost job skills, or the deprived use it to assist break the cycle of poverty. Throughout economic hardship, our citizens intercommunicate and depend upon the library.

Over summer vacations, evenings and weekends, the Library is the only library offered to high school children; for preschoolers it's merely the sole library offered. Faculty students usually use the library once they are at home for the weekend or for holidays. And also the reference resources of public libraries are typically inaccessible elsewhere within the community.

Library could be a distinctive and valuable resource. It's a lifeline to the globe and everyone has knowledge in it.

Role of Libraries in our societies

Modern societies are heading towards information-based and knowledge-based mostly societies. Information and knowledge are the foremost sought–after and valuable merchandise in such societies. Trendy societies would like this valuable merchandise – data and information – to support their missions to emerge as economic leaders. Establishments of education and learning, policy and higher cognitive process bodies, trade use data for technological innovations, research, education, cultural, economic and social progress and development, Libraries are one amongst the foremost effective means of constructing data offered to the society and nation. Libraries became a part of the social framework. Libraries became an integral part of all social programs of growth and development of the rustic. The roles that libraries play in supporting trendy societies are often sorted underneath 5 major classes (I) pedagogy roles (ii) user education roles, (iii) recreation roles, (iv) Library as an area and (v) social and cultural roles. The social roles that libraries have returned to play embrace democratization of information and knowledge, linking individuals to information and data sources, data and awareness services to communities for authorisation. Library as an area has an associated attraction in itself as the library is employed to run and organise educational, social and cultural activities. Libraries function as community centres with inventive areas

appropriate for a variety of activities like organising cultural activities to push social harmony. Libraries collect, preserve and conserve documents regarding socio-cultural aspects of the society for future generations.

Conclusion

Libraries are one amongst the few places within the world that offer even the worst-off individuals an opportunity to enhance themselves. There are plenty of activities that you simply will do there. Individuals will study depression, alcoholism, personal finances, the way to notice employment, fix their house. It is not simple, and you continue to need to put your all into. You have got to grasp English, and you have got to spend several hours at it. You'll be able to create use of various newspapers and employment news to seek out employment for you, completely different books to check and plenty a lot of is there within the library for everybody. Library offers a door for one and every one, of each cohort. Libraries supply free education and recreation to the plenty. It does not matter what your economic standing is, you'll be able to be available and have free access to books which will inform and rework you. I hope libraries can continually be around in some kind or alternative.

Recommendations

When every person has the potential to carry a global library on the device in his or her pocket, the role of physical libraries may become even more important, not just a place to house resources, but one in which to create meaning from them. The libraries of the 21stcentury provide a welcoming common space that encourages exploration, creation, and collaboration between students, teachers, and a broader community. Needs to set up more libraries and give more advanced services to users which will help to make successful societies. Government takes necessary steps towards development of libraries which will help to develop our societies as well as our nation. Library professionals need to upgrade their knowledge and be more energetic to attract users towards the library by applying different methods like library marketing, Library orientation programmes, Library extension service. Library professionals have to take responsibility to arrange 21st century's technological blessing in our library which will help to provide first and update library services to the users.

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Initiating the "Human library event" in public libraries in Sri Lanka

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Abstract

A Human Library emphasizes empathy as an aspect to create better understanding between people and provides a conscious space where people learn more about each other. This study examined the present, means of human library, importance of introducing human libraries and the expansion of this concept within the context of public libraries in Sri Lanka and as well as why we should set up human library concepts in our culture. The critical research carried out to fulfil the objectives in this study. The research found that expansion of human library concept was importance, those are as creating a space of dialogue and understanding, promoting respect for Human Rights, passing knowledge and experience of people exposed to discrimination, stereotyping, prejudices and exclusion and Shaping attitudes of openness and acceptance towards 'otherness'. The vast majority of countries have multicultural societies that have diverse community groups. There are various characteristics, beliefs, arts, knowledge, and other social- factors of different groups of people throughout the world. Hence, through the human library approach humans can share the knowledge and experience of humans. The research recommended conducting new awareness programs to enhance the human library event and encouraging library professionals collecting 'voluntary human books' through reader society in public libraries.

Keywords: *Human Library, Public Library, Human Book, Social Inclusion, Prejudices, Outreach services, Extension Services*

Introduction

As a gateway to knowledge and culture, the library provides life-long education for humans. The word "library" seems to be used in so many different aspects now, from the cuneiform tablets to the digital libraries. The most noticeable functions of any library are determining, acquiring, organizing, disseminating and preserving the knowledge for the utilization of their users and for an innovative society. Traditional Library gives insistence on storage and sustain of physical items, particularly books, periodicals and related material. Concept of "Human library" contrasts any other kind of physical library, because of the "living books" in a human library.

The Human Library is very much like a regular library where people go to borrow books. The only contrast is that the books are all human volunteers who have opted to speak about their circumstances openly to an interested audience and answer any questions they are asked. Each

volunteer is a book on a specific topic. According to Ronni Abergel, "There are grateful books hidden in most of us", and this is a chance for those books to be read by others and find their spot on the bestsellers list (Buley library, 2020).

The human library approach was established as a community intervention strategy to facilitate a social inclusion of people to the recovery from mental illnesses ("in recovery") (Johannsen, 2015). The first human library was initiated in Copenhagen, Denmark by an international organization in 2000, to ensure a global implementation of the Human Library as a learning platform. The concept has been validated as an effective method to share the knowledge and experience of humans. According to yap, the human library is a venue for dialogue among those stereotyped, judged, oppressed and discriminated against (yap, 2020). By participating in the human library, readers can engage in a dialogue with "living books," or storytellers, whom they may seldom meet in daily life (Kudo et al, 2011). The significance of human libraries is that; the library comprises actual people. Just like printed books, human books can be arranged according to various categories with the availability of human resources such as people with abuse, Anger & Conflict resolution, Anxiety, Co-parenting, Depression, Digital addiction, Divorce & separation, eating disorders, grief & loss, disabilities, refugees, cancer survivors, LGBTQ people and etc. During a Human Library event, readers can borrow one of these titles and engage in conversation with their chosen human Book about what they are interested in and users can learn further, since the human library provides opportunity to share people's experiences who have faced that in their lifestyles, beliefs and discriminations. Founder of the human library concept, Ronni Abergel elaborates on the major objective of initiating a human library stating that it creates a space,

"where you can walk in, borrow a human being and talk to them about a very challenging topic. Ideally, we wanted people to talk about issues that they normally would not talk about, or potentially don't like to talk about, but that we need to talk about" (Elsesser, 2020).

Although the concept of "The Human Library" has begun in Denmark, currently a huge number of libraries throughout the world tend to practice the human library concept. March 2nd, 2013. Visitors to the Halifax Public Libraries were invited to take out a Human Book and challenge their preconceptions about other members of the community at their first Human Library event.

A new chapter of the Human Library is on its way to serve readers at the University of Jakarta (Human Library Organization,2019).

First "Human Library" event in Humanistic Youth Movement in Murmansk Was a pilot project to see how and in which way the Human Library can be used as a useful tool to raise a more tolerant attitude towards stigmatized groups in the community. Moreover, The Human Library works with organizations like the IMF and big corporations like Daimler, Heineken, Ebay, and

Microsoft to educate workers, increase diversity and tolerance, and promote inclusive work environments (Buley library, 2020).

Sri Lanka is a multinational state, home to mixed cultures, languages, and social-class. Since it has a multinational population, the human library would be assessing socio-cultural harmony among different communities. In Sri Lanka, "the human library" concept is an arising topic that has been captured by the librarian community. The concept of human library is still new to Sri Lanka, even though in 2009 the University of Colombo and the University of Sri Jayewardenepura organized human library projects. In Sri Lanka, "the human library" concept is an emerging topic that should be gaining attention among librarians, while especially public libraries around Sri Lanka must pay attention to initiate human libraries for the benefit of their users.

Objectives of the study

The objective of this study is to introduce the concept of Human Library and discuss the approaches to initiate human libraries in public libraries in Sri Lanka.

Methodology

Research carried out critical research using the web based survey. The sample human library events of the study were taken from the Human Library organization (Human Library Organization,2019). Reviewed research articles, books and web pages relevant to this concept were facilitated to fulfil this study. To come to conclusion, content analysis has been conducted.

Findings

The research found that expansion of human library concept was importance as learning platform, those are as creating a space of dialogue and understanding, promoting respect for Human Rights, passing knowledge and experience of people exposed to discrimination, stereotyping, prejudices and exclusion. It leads to a unique exchange of thoughts and usually to mutual understanding as the scientific research the human library has already proves, a short conversation can have a big impact.The quality of the conversation is important. To set up a high quality Human Library, it may have taken quite some preparation time (Human Library Organization, 2019). In this, there are some important principles to consider.

- Certification   Evaluation

- Catalogue   Safety
  Training   Accessibility

- Prejudices   Diversity

- Contact details   Voluntary

Conclusions and Recommendations

Since every country in the world has its own cultural values and conventional values, it is crucial to promote cultural – cohesiveness and harmony among communities to build society as a better place to live in. In this view, human libraries play a main role by delivering opportunities for making a better understanding and improving social inclusiveness in the society. On the other hand, Public libraries continue to be a place for education and self-help and offer opportunity for people of all ages and backgrounds. They offer opportunities for everyone to learn and to pursue self-improvement. In response to community needs for information, many libraries offer programs such as English as a Second Language (ESL) classes, homework help, after-school programs for children, job information centers, assistance for new immigrants, literacy programs, and much more. To serve such community needs, public libraries collect and make available information in many formats. Hence, initiating a social discourse by creating human library events in public libraries is the need of the hour for minimizing cultural friction and misunderstanding.

The world we are living in today is enriched with multi-cultural values and traditions. Hence, although culture is the symbol of a nation, culture-based controversies are rampant among communities that are affiliated to different cultures. In this phenomenon, the "human library" concept would be a blessing to ensure the cultural – harmony of the society.

It is highly recommended to the national library in Sri Lanka to conduct the awareness programs for public library professionals to arrange human library events and encourage library professionals collecting 'voluntary human books' through reader societies in public libraries.

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Perceptions and promptness of Using Zoom Meet Webinar for capacity building of the undergraduates in Rajarata university of Sri Lanka During COVID-19

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Abstract

Current performs of virtual communication incorporate web-based learning, online gatherings, online courses, live streams just as virtual gatherings due to the pandemic situation worldwide. While a portion of those practices (e.g., online courses) accentuate information movement and are frequently not intuitive, others can be intelligent (e.g., virtual gatherings) yet this potential intuitiveness isn't yet completely taken advantage of. The scholastic local area has reacted rapidly to the difficulties of conveying distant instructing. These papers focus on the idea of limiting a lot working just as the requirement for advancement for students. The requirement for self-awareness of students is brought up. The determination of the study is to expose the inspiration of webinars as one of the foremost methods of increasing the motivation for learning. It also places of interest the core skills and competencies required of undergraduates and the approaches to accomplish them. This examination intends to distinguish the level of understudies' impression of utilizing zoom meet online webinars during Coronavirus.

Keywords: *Capacity Building Program, Covid 19, Webinars, Skills and Competence, Pandemic, Perception, University Library*

Introduction

Sri Lanka also is battling the COVID-19 pandemic like different nations in the world. Regardless of the ceaseless endeavors to control the pandemic, COVID-19 cases have been diligently spreading and numbers are expanding step by step. Coronavirus has extremely reformed the way in which worldwide instruction is conveyed. The outcomes of the examination of methodical and operational literature and periodicals make it possible to state that the use of webinars assists to resolve numerous difficulties of the educational procedure. In particular, researchers Mussaui-Ulyanishcheva & Zakharova, (2020) defined the numerous benefits of webinars such as minimum costs for events organized and conducted by the university; availability for almost an unlimited number of participants; interaction between participants and the presenter, which is achieved by means of a chat (most often) or using video communication; ability to access web resources during the webinar; ability to save the webinar in the appropriate video format, etc.,

According to Mussaui-Ulyanishcheva & Zakharova, (2020) stated that "Speaking about the methodological aspects of conducting webinars for humanities students, it should be noted that the development of webinars in social and psychological disciplines includes the following stages: defining the target group for the webinar, designing the goals of the webinar, analyzing the content of the topic, choosing software and organizational basis for conducting the webinar,

selecting the content for a webinar (the main principle is novelty and unusualness), finding problems in mastering this content in full-time and remote form, formulating goals from the perspective of teaching and learning, as well as transforming content into a structured text, defining blocks in a structured text, choosing types of visualization that offer problematic and interactivity of studying a block of structured text, defining the logic of presentation of blocks, forms and methods of their presentation within a webinar, defining a support system for the process of conducting a webinar (showing presentations or videos in which one can increase the "dose" of symbolic information formations, as opposed to face-to-face performance, work with a virtual board, knowledge maps, activity or interactivity of participant polls, organization of a "question-answer" system in the online chat window, etc.)".

Objectives

The main objectives of this study are to expose the inspiration of webinars as one of the motivations for learning. There are sub-objectives such as to develop skills, competencies required from Undergraduates of the University, to provide an overview of the CB Initiatives/Strategies as best practices, and to identify success factors, best practices of CB Initiatives/Strategies.

Methodology

In a first step, an extensive literature review and Internet research was carried out, focusing on identifying relevant CB Initiatives/Strategies. The author was recognized numerous approaches to arrange such events timely needed for the undergraduates. Few were organized by the Career Guidance Unit of the University to address the whole students of the university. The researcher was acted as a resource person having knowledge about such topics.

Conclusions

In the end, the students were suggested to organize such programs for all students in a timely manner to improve their capacity building due to such a pandemic situation. Some of the programs link to the self-Evaluation Report (SER) of the faculty level. It was another added value usual library service of the university.

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Assessing Information Poverty on COVID 19 among Housewives in Kerala

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Abstract

People around the world have been facing the hard times of the COVID 19 pandemic. As it is important to get updated about COVID 19, the researchers intended to analyse the information needs of housewives in Kerala in India and the sources adopted by them for the same. The COVID 19 information needs of housewives considered for the paper are COVID 19 symptoms, virus transmission, preventive measures, test methods, vaccinations, quarantine rules, travelling advice, daily positive cases, death rates, test positivity rates and variants. In addition, the study evaluates information poverty of the population under consideration on COVID 19, so that it assessed the factors affecting the information poverty of them. 196 housewives responded to the structured questionnaire. The major finding of this study is housewives in Kerala experience some sort of information poverty on COVID 19, primarily it is due to lack of ICT infrastructure and skills for using it. As women are the prominent caregivers of the family, it is more necessary to eradicate information poverty on COVID 19 by providing more ICT infrastructure and imparting more skills development programmes.

Keywords: Information needs, Information Poverty, COVID 19, Housewives, Kerala

Introduction

Information poverty is defined as the condition in which individuals and communities, within a given context, do not have the requisite skills, abilities or material means to obtain efficient access to information, interpret it and apply it appropriately. It is further analysed due to a lack of essential information and a poorly developed information infrastructure (Britz, 2004). In addition, Chatman (1996) analyses the concept based on four self-protective behaviours, such as secrecy, deception, risk-taking, and situational relevance.

The factors which influence the information poverty of a society or individual are Economic, Information awareness, Educational, Personal/ attitudinal, Intellectual, Social/ cultural and Institutional (Mckeown, 2016). People living in socially deprived areas and isolated areas or communities face information poverty.

Women are prominent in the health response and they make up the majority of the health care, shouldering much of the burden at home, given school and child care and longstanding gender inequalities in unpaid work (OECD, 2020). Housewives are a major category of women who act as the primary caregiver of the family (Sharma et al., 2016).

Anwar et al (2020) analyses women's self-reported data on the knowledge, attitude, and preparedness on COVID 19 and they conclude that younger and educated women had better

knowledge levels compared to the older and lower educated-socio-economic participants and more efforts are essential to educating later clusters of women.

The study assessing the information poverty of housewives on COVID 19 by analysing the level of information literacy, social prejudice, information supply and ICT.

Objectives

To evaluate the information needs related to COVID 19 among housewives.

To investigate various sources that housewives adopt to access information on COVID 19.

To assess the factors that affect information poverty on COVID 19 among housewives.

Methodology

The population considered for this study includes 200 housewives in the Kondotty Taluk in Malappuram district in Kerala and convenience sampling technique was used. The data were collected through an interview schedule using a well-structured questionnaire among the population under study. The survey was conducted in 2021 and the total response rate was 98% (196 out of 200 questionnaires).

Results and discussion

Demographic Details

The majority (43.4%) of the survey participants were under the age category of 41-50 followed by 31-40 (23.5%) age group. 41.3% of the housewives under consideration are studied up to Under Graduation and 30.6% of respondents have completed senior secondary. Only 11.7% of housewives were with Post Graduate qualifications. In the case of place of living, 56.1% of the sample were living in rural regions. 23% and 20.9% were existing in semi-urban and urban regions respectively. In the sample, the majority (78.6%) were having own smartphone, but 20.4% using their husband's smartphones.

Information Needs on COVID 19

Amidst the health pandemic, it is necessary for everyone, irrespective of all class distinctions, to be updated on COVID 19 to fight and defeat the virus. The majority of the housewives under study were aware of all the information related to COVID 19. However, some of them are getting regular updates on COVID 19, which includes different types of vaccinations, quarantine rules, travelling advice from the government, different variants as well as daily positive cases, death rates and TPRs. However, a minority of the sample under consideration

were not aware of the same. This might be due to multiple reasons that they may not be going outside, unawareness or ignorance about the new normal, lack of ICT infrastructure, lack of financial capital to pay for information, etc.

Information Sources of COVID 19

Another objective of this study is to find out the information sources the housewives adopt for accessing the information on COVID 19. They were given various information sources, including doctors, internet, friends, family, Counsellor or Psychologist, Asha Workers, Libraries, Support groups, Worship centres, Television News channels, Radio News or COVID 19 related programmes, Applications (eg. Arogya Sethu), Newspapers, Social media and Online News Portals and they were asked to prioritise those information sources according to their preferences. 96.9% of participants were most preferred doctors and newspapers, however, around 60% were chosen internet, friends, family and Radio News or COVID 19 related programmes. Nevertheless, above 60% of housewives underlined that they do not give preference to Counsellors or Psychologists, libraries, Support groups and Worship centres. 86.7% of the sample under study were given the least preference to Applications (eg. Arogya Sethu) and Online News Portals.

Information Poverty on COVID 19

In this paper, information poverty has been evaluated by assessing information literacy, social prejudice, information supply and information and communication technology (ICT) (Mou & Xu, 2020). The scale is adapted from (Mou & Xu, 2020) and it has been changed according to the context of this study. Table 1 provides an idea regarding how extend each factor of information poverty affects the housewives in Kerala. In which, it can be understood that the most influenced factor is ICT (SD=0.704167), followed by information literacy (SD=0.76975). 56.1% of the housewives belong to the rural region, so the availability and accessibility of ICT facilities might be limited for them. In addition, the lack of ICTs can be affected to information literacy.

Table 1 Factors of Information poverty

	Items	Mean	Standard Deviation
Information Literacy	I know where to get the information COVID 19 I need.	3.86	0.771
	I have the necessary skills to obtain the information on COVID 19	2.45	0.812
	I get information on COVID 19 by accessing electronic resources.	3.05	1.106
	I can systematically organize the information on COVID 19 obtained to solve problems.	2.9	0.942

	The information I obtained related to COVID 19 can effectively solve practical problems I met.	2.76	0.864
	I will access and use information on COVID 19 properly.	2.97	0.667
	I can interpret COVID 19 information appropriately	2.37	0.485
	I can assess the quality and authenticity of the information on COVID 19 collected.	2.47	0.511
Social Prejudice	I use confidentiality to avoid getting hurt in the process of obtaining information on COVID 19	3.434	0.7237
	I selectively receive information on COVID 19 on daily basis.	3.485	0.6282
	I do not think it is good for me to share if I have COVID 19 symptoms with people from other circles.	3.59	0.692
Information Supply	I have an efficient information-providing platform related to COVID 19	3.37	0.485
	I think the information infrastructure related to COVID 19 around me is perfect.	3.2	0.713
	The COVID 19 information around me exists in an orderly manner without chaos.	2.22	0.442
	I can get information on COVID 19 in a convenient and fast way.	2.91	0.717
ICT	I have good Internet access to gain the information on COVID 19.	2.54	0.819
	I often use the network to solve problems.	2.61	0.754
	The network coverage around me is strong.	2.65	0.8
	It is very convenient for me to open a network service.	2.49	0.586
	I think the cost of opening the network is reasonable.	2.32	0.549

CONCLUSION

The paper concludes that ICT is one of the prominent factors among other influences of information poverty, in the case of housewives in Kerala. Social prejudice has no significant impact on this context. Information poverty is a global phenomenon. If a society lacks information, it will keep them far away from social inclusion, so that they will be a kind of disadvantaged group. Unsatisfied information needs, improper information-seeking behaviour, insufficient information awareness, etc. are also influencing a society's or individuals' information poverty. One of the important solutions to this matter is that acquiring the necessary skills to identify, evaluate, interpret and apply information to meet information needs.

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A Study of undergraduates' intention to use online library services during COVID -19 Pandemic: a quantitative study

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Abstract

Most of the universities in the world changed their teaching & learning strategies into online mode due to the COVID-19 pandemic situation. With this background, students enrolled in universities for 2019/2020 academic year commenced their academic programs via online. During this pandemic period, university libraries are providing their services via online to support the teaching and learning process. However, unlike senior undergraduates, new entrants do not have any experience on academic library services. Therefore, it is important to study whether the new entrants to the faculty of Science are using library online services for their learning process or not. Thus, the main aim of this study was to identify the factors influencing new entrants' usage of online library services. Data were collected through an online questionnaire based on a survey performed among 588 new entrants of the Faculty of Science, University of Peradeniya. The model was tested using path analysis with multiple regression techniques. Findings indicated that majority of new entrants accessed the library website and past papers. In addition, utilizing soft copies of text books and documents delivery services received higher percentages. Perceived usefulness was found to be a direct significant determinant of new entrants' behavioural intention of online library services acceptance and visibility had a strong effect on perceived usefulness compared to other determinants. Based on the results, it is recommended that the library management should focus on providing more relevant information resources and services via online. Furthermore, programs should be conducted to improve the student's efficacy level of accessing online library resources and services in order to enhance their usage.

Keywords*: Online Library Services, COVID -19, New Entrants, University*

Introduction

COVID-19 pandemic situation has changed physical activities of university libraries into the online mode. At present, most of university libraries provide online based services to fulfil the information requirements of students and researchers. Therefore, this study aims to explore the undergraduates' acceptance of online services provided by the library for their teaching learning process. This study mainly focused on first year undergraduates' who enrolled in the university for the year 2020/2021. Newcomers have different experiences towards library and its services compared to other undergraduates as they attend library orientation programs via online. They gain virtual library experiences due to the pandemic situation. Thus, it is timely and important to study how online library services are used by this targeted user and which factors affect their usage. A few empirical studies were found on the provision of online library services in the local academic setting (Fernando & Senevirathne 2021; Mashroofa, 2021; Perera & Suraweera

2021). However, no attention has been paid on examining new entrants' intentions towards online library services and the determinants in the context of this global pandemic emergency.

Objectives

This study aims to identify factors influencing the intention to use online library services provided by Science Library, by new entrants. More specifically, the present study is guided by the two specific objectives:

To identify the services that students widely use during pandemic period

To examine the relationship between first year undergraduates' behavioural intention and the determinant factors

Methodology

Following conceptual framework was developed in order to exhibit the relationship between first year undergraduates' behavioural intention and determinant factors. Conceptual framework was formulated using core concepts of Technology Acceptance Model (Davis et al., 1989) and other three external variables were extracted from available literature
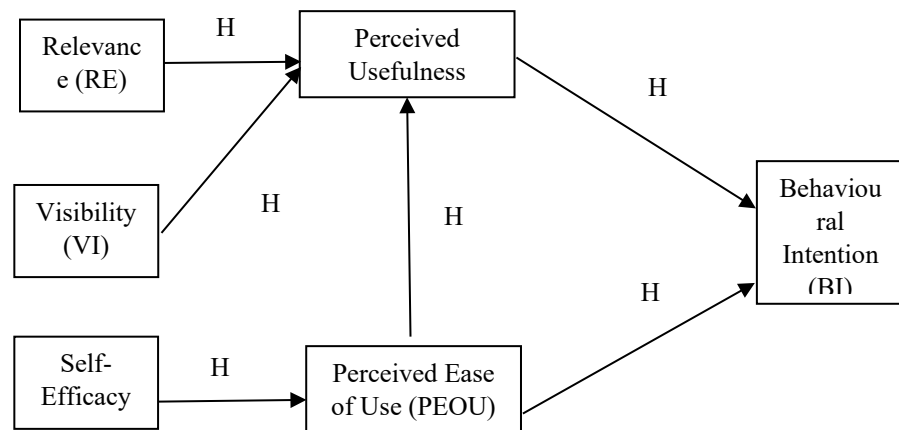
Research Hypotheses

H1: PU will have a significant positive impact on the BI to use Online Services

H2: PEOU will have a significant positive impact on the BI to use Online Services

H3: PEOU will have a significant positive impact on the PU of Online Services

H4: Relevance will have a significant positive influence on the PU

H5: Visibility will have a significant positive influence on the PU

H6: Self efficacy will have a significant positive impact on the PEOU

The data were collected using an online questionnaire distributed among all first year

undergraduates of the Faculty of Science, University of Peradeniya from June –August 2021. Total number of students who enrolled in 2019/2020 batch was 588. There were 318 completed responses and data were analysed using Statistical Package for the Social Sciences (SPSS). The model was tested using path analysis employing multiple regression analysis techniques.

Results, Discussion

The results of reliability statistics of the constructs (PU = 0.860, PEOU = 0.792, RE = 0.784, VI = 0.775, SE = 0.857, BI = 0.743) exceeded the acceptable level of 0.7 (Sekaran, 2000), confirming that the questionnaire was a reliable tool.

Table 01: Usage of online Services by new entrants

Services	No	%
Library Website	298/318	93.71
Soft Copies of Text Books	258/318	81.1
Soft Copies of Journal Articles	31/318	9.7
Past papers	271/318	85.22
Document Delivery Service	108/318	33.9
E –journals	21/318	6.6
Databases	13/318	4.0
Digital Library	07/318	2.2
Library online catalogue	121/318	38
Ask Librarian	34/318	10.6

Library initiated as well as enhanced several online services for undergraduates to fulfil their information requirements during COVID-19 pandemic period. Table 01 shows the number of responses received from the students for each service. Majority of students used the library website for accessing information (94%) while 85% of them accessed online past papers. Around 81% of new entrants used the service of soft copies of text books. Further, 38% of new entrants accessed the online library catalogue and 34% of students used the document delivery service. Least percentages were received to e- journals, databases and digital library services. Findings revealed that majority of new entrants' accessed the library website and past papers, used soft copy service of text books, document delivery service, and online library catalogue.

Table 02: Results of the Hypotheses

Hypotheses	Path	Standard Co-efficient β	Sig.	R2	Result
H1	PU ⟶ BI	0.451	0.003*	0.537	Accepted
H2	PEOU ⟶ BI	0.164	0.001*		Accepted

H3	PEOU → PU	0.463	0.000*	0.610	Accepted
H4	RE → PU	0.299	0.002*		Accepted
H5	VI → PU	0.548	0.004*	0.457	Accepted
H6	SE → PEOU	0.223	0.000*		Accepted

Multiple regression analysis was used to test the relationships among the independent variables and the dependent variables of the research model. According to the Table 02, beta (β) values indicated that Perceived Usefulness and Perceived Ease of Use contributed positively in measuring student Behavioural Intention to use online services (β = 0.451, p ≤ 0.05, β = 0.164, p ≤ 0.005; respectively). Perceived Usefulness was influenced by Perceived Ease of Use (β = 0.463, p < 0.005). Also, Relevance and Visibility were positively associated with Perceived Usefulness (β = 0.223, p < 0.005, β = 0.548, p < 0.005; respectively).). The positive association was found between Self-Efficacy and Perceived Ease of Use (β = 0.223, p < 0.005). Overall, Perceived Usefulness and Perceived Ease of Use accounted for 53.7 per cent variation in the student Behavioural Intention to use the online services. Further, Perceived Usefulness was a direct significant determinant of new entrants Behavioural Intention of online services acceptance. Moreover, findings demonstrated that Visibility had a strong effect on perceived usefulness compared to other determinants. Findings indicated that students who recognized the benefits and its usefulness of online services provided by library and believed that using the said services improve their performance to achieve academic targets. It leads to motive students to increase their intention to use these services.

Conclusion & Recommendations

The present study seeks to understand the online library services used by new entrants and the factors behind their intention of using online services from the perspective of TAM. Majority of the new entrants had accessed library website and online past papers. Many students used the services of soft copies of text books (81%) whereas, use of digital library, databases and e –journals were not popular among first year undergraduates. It was found that perceived usefulness was a strong determinant of students' behavioural intention to use online services. Visibility was also a strong determinant which contributed indirectly to student behavioural intention to use online services. Based on the results, it is recommended that library management should focus on enhancing the usefulness feelings of students while they are using online library services. It will lead to encourage them to continue these services. Moreover, adding more relevant information resources and making the library website access easy to use will increase the use of online services. Further, it is recommending to incorporate other factors into the research model to visualize the student's behaviour intention in a wider aspect.

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Online library services provided during the COVID -19 pandemics: In association with the websites of the University Libraries of Sri Lanka.

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Abstract

The COVID-19 epidemic, which started in China and spread to Sri Lanka on March 24, 2020, has now become an unavoidable situation. In the face of this situation, the government closed the country from time to time to prevent the spread of the disease from the time it started. This catastrophic situation affected more or less every sector of the country and universities can be described as one of the most unique fields. In the face of this situation, university libraries continued to provide education to students through online methods, and students also had to adapt to online schooling. With this online education, the current environment is conducive for university libraries to provide students with the information they need for their learning, teaching, and research online. The main purpose of this study is to study through their web pages what services are provided by university libraries in a way that readers can access online in the face of this epidemic.

Keyword: *Online services, Library, Covid – 19, Website, University library Srilanka, E-servises*

Introduction

To stop the spread of the COVID-19 epidemic, governments around the world have put their countries under full or partial lockdown. These lockdowns, however, had serious economic and social effects, posing unique issues in the educational sector, forcing not only students but also policymakers and service providers, such as librarians, to adapt and use technology as a viable and important tool. However, due to the pandemic's condition, Sri Lankan universities have chosen to cancel all examinations. However, the sudden onset of lockdown and shut down for several months has caused many students faced to an uncomfortable predicament. This scenario called into question how academic libraries used to work. Due to the suspension of in-person services and the loss of access to physical collections at the universities' libraries, students, teachers, and library professionals had to consider technology.

Objective

To identify the services provided by the university libraries web site during the COVID-19 pandemic.

To identify the differences in online services provided by university libraries.

Limitation of the study

The study's findings are solely based on the contents accessible on the day of the website investigation. Due to the transient nature of web information, some library services supplied during the pandemic may not be reported in the study. Second, services provided by the libraries under investigation that were not uploaded to their websites could not be examined.

As a result, there is no way to claim full coverage.

Methodology

State Universities under the University Grants Commission were selected as the population. Currently, there are 15 government universities in Sri Lanka under the UGC. All libraries of these universities were selected as the study sample using the purposive sampling method. For easy to collect data I have divided all current online services into four categories and based on that have collected data. I do not include library online services and electronic sources in these categories because libraries have been providing online services and electronic sources since before the epidemic.

Table -1 : List of Sri Lanka State universities

S.N	Name of the University	Web address	Abbreviation
01.	University of Colombo	https://cmb.ac.lk/	CMB
02.	University of Peradeniya	https://www.pdn.ac.lk/	PDN
03.	University of Sri jayawardhanapura	https://www.sjp.ac.lk/	SJP
04.	University of Kelaniya	https://www.kln.ac.lk/	KLN
05.	University of Moratuwa	https://uom.lk/	UOM
06.	University of Jaffna	http://www.jfn.ac.lk/	JFN
07.	University of Ruhuna	https://www.ruh.ac.lk/	RUH
08.	Open University	https://www.ou.ac.lk/	OU
09.	Eastern University	https://www.esn.ac.lk/	ESN
10.	South Eastern University	http://www.seu.ac.lk/	SEU
11	Rajarata University	http://www.rjt.ac.lk/	RJT
12.	Sabaragamuwa University	https://www.sab.ac.lk/	SAB
13.	Wayamba University	https://www.wyb.ac.lk/	WYB
14.	Uva Wellassa University	http://www.uwu.ac.lk/	UWU
15.	University of the visual & performing Arts	https://vpa.ac.lk/	VPA

Findings Table – 2: Types of facilities and services

Types of online services	CMB	PDN	SJP	KLN	UOM	JFN	RUH	OU	ESN	SEU	RJT	SAB	WYB	UWU	VPA
The online User Training program	√			√	√		√	√	√	√	√			√	
Webinars for users	√	√	√	√								√		√	
Virtual Tour in library			√	√	√							√			
Resources Related to COVID-19	√		√	√				√		√	√		√		

Result & Discussion

Online User Training program

Due to this epidemic, the process of admitting students to universities took place online as well as a group of students who have been conducting their examinations online since the day they started their university activities. Their examinations are also conducted online. In such a situation, they are trying to get the information they need through the library. If they can get information online through they can easily get the information. But some users don't have any idea about getting information online. To this end, the library should educate readers on how to obtain information online using library sources. In this study, 9 libraries (CMB, KLN, UOM, RUH, OU, ESN, SEU, RJT, UWU) saw how such reader awareness was conducted through the websites. Out of these, about 2 libraries have informed about how to access a database and how to obtain information from it.

Webinars for users

University libraries are specialized institutions that contribute to the learning, teaching, and research activities of students and teachers. In research work, readers have to search for the literature they want in different ways. They have to search for information using different databases. Many university students may not be aware of this. Also, in such a situation, it is important to educate the readers through various online workshops on the specific means of obtaining information as it is not possible to make the readers aware of it in a formal way. Out of the above-selected libraries, six libraries (CMB, PDN, SJP, KLN, SAB, UWU) have conducted such webinars continuously. In particular, the workshops focused on areas such as how to obtain accurate information and how to write an expert article using a variety of subject-specific databases.

Virtual tour in the library

In general, university libraries are spread over a large area of university space. Those university libraries have different sections so it can be difficult for a reader who comes to the library at the same time to go to the relevant sections of the library. Before the covid situation, all university students were taken to libraries to learn about the library. but now the library can not do such a physical tour. so, to inform the new student about the library online is the responsibility of library staff. Three libraries from the sample selected above have videotaped each section of the library and embedded it in the website. Other libraries include a map of the library, and many libraries include a library manual on the web.

Resources Related to COVID-19

Although the COVID - 19 epidemic is recent, many researchers have already researched it. Research is being done day by day. As the scientific community across the globe is racing against time to develop a definitive treatment for the disease, access to as much as and as quickly as possible published literature to accelerate the ongoing research is the need of the hour. Notably, a lot of commercial publishers and vendors have taken a significant initiative and have provided open access to materials related to COVID-19. Others have facilitated access by making it easier to log in and access materials from outside of official networks. In conducting such research, researchers will be able to carry out such work without interruption if the information relevant to the research is not obtained from an official website but a library website. But the selected library's websites have not provided online access to literature about COVID-19. However, seven university libraries have (CMP, SJP, KLN, OU, SEU, RJT, WYB) included information about COVID - 19 in their websites.

Conclusion

The COVID-19 epidemic necessitated urgent and radical changes in the provision of library services, as severe social isolation and locking measures were imposed in the early stages of the epidemic. Internet and web technologies have created a new and unique environment in which libraries can enhance and strengthen research, teaching, and learning, even in these difficult and uncertain times. The concept and practice of giving libraries remote access to e-resources are not new, but the user-friendly methodology used by many libraries and the number of resources they acquire during the plague are exemplary. Based on the data available, this study shows that with this epidemic situation, many university libraries, as usual, offer their services online to readers. The study also shows that several university libraries have not yet paid much attention to these online methods.

Recommendations

Should be developed on adding more online information which is useful to library patrons.

Should include useful online guides for education and research purposes.

Should include literature and up-to-date information about COVID - 19.

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Use of library e-resources among the final year students of LIS; Based on university of Kelaniya.

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Abstract

The research problem of this study is do final year LIS students of university of Kelaniya use library electronic resources? And the objectives are this study were to identifying the use of e-resources among LIS students, to identifying the purposes of using e-resources by LIS students, to identifying the benefits to use e-resources LIS students and to identifying the problems using e-resources used by LIS Students. As a research method have used survey research method. Used primary sources for data collection. Main primary sources was questioners and interview. Used MS Excel software for data analizing. The main finding of this study was that students studying library science at the University of Kelaniya have some understanding of the electronic information sources available in the library. And they use these electronic sources to obtain information for their studies and research. A detailed result of this study was discussed and recommendations were made to improve and enhance the usage of e-resources.

Keywords: *Digital resources, Electronic resources, Online databases, University library*

Introduction

With the advent of new information and communication technology (ICT), a number of electronic resources such as e-journals, e-books, e-mail, e-database, and e-dissertation have been developed and used in libraries. Therefore, it is easier for the readers to get updated information. Focusing on University Libraries University libraries also include in their libraries the electronic resources needed for many students' academic and research activities. Electronic information sources that provide this up-to-date information are essential for students' academic and research work. However, despite the fact that libraries have various electronic sources of information, the question for this study is whether those sources are used by university students.

Objectives

- To identifying the use of e-resources among LIS students.

- To identifying the purposes of using e-resources by LIS students.

- To identifying the benefits to use e-resources LIS students.

- To identifying the problems using e-resources used by LIS Students.

Methodology

The use of e-resources is studied using the survey (questionnaire) method. Final year 50

undergraduate students of LISC was selected as a population and selected as a sample 50 students. Have collected data through primary sources. Structured questionnaire was created to collect data from university of Kelaniya undergraduate students. Keeping the study's primary aims in mind to obtain data, undergraduates were personally contacted. Used MS Excel software for data analyzing.

Results and Findings

The study identified five major e-resources that university students use in their studies. The final year students of Library and Information Science have identified how they have used these electronic resources for their academic activities.
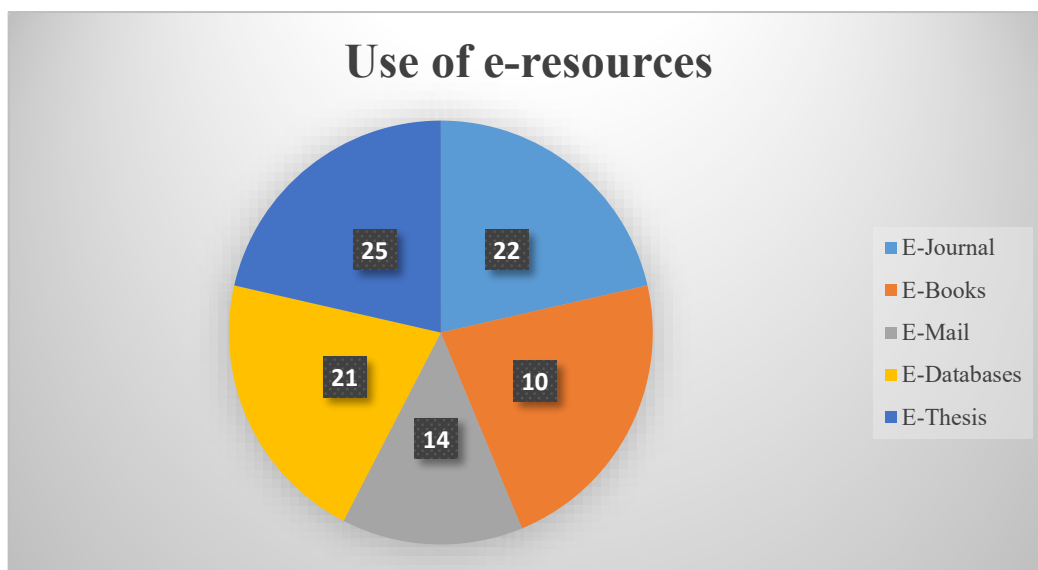
Figure 1 – Use of e-resources

(Authors, Survey Data 2021)

Among 50 LIS student, 22 of LIS students are use of e-Journals. 10 of LIS Students are use of E-Books, 14 of LIS students are use of e-mails, 21 of LIS Students are use of e-databases and 25 students are use of e-thesis.

Table 1: Purposes of using e-resources by LIS students

Purpose	Frequency	Percentage
To review literature	50	100%
To complete assignment	45	90%
To gain information on specific topics	34	68%
To supplement study notes	23	46%

(Authors, Survey Data 2021)

100% (50) respondents used e-resources to enable them to review literature. 90% (45) respondents used e - resources to complete assignments and 68% (34) used e-resources for gain

information on specific topics. In addition of these, 46% (23) students have used to get supplement study notes.

Table 2: Benefits to use e-resources LIS students.

Benefit	Frequency	Percentage
Availability of search tool	24	48%
Multi users' access	50	100%
Time saving	44	88%
Space saving	50	100%
Easy of use	31	62%
Availability of support facilities	21	42%

(Authors, Survey Data 2021)

The survey found that even though most students had poor search abilities, they nevertheless used e-resources for their studies. The students demonstrated that using e-resources provided them with many benefits.24 (48%) students were inspired to use e-resources because of the availability of search tools. 50 (100%) indicated that multiple users could access e-resources concurrently; 44 (88%) mentioned benefits relating to time saving; and 50 (100%) stated that compared to print sources, e-resources are less bulky – hence, accessing and using them helped save space. Moreover, 31 (62%) said that they could use e-resources at their own convenience, that is, they benefited from the easy-to-use feature of e-resources, while 21 (42%) stated that many support facilities were available to facilitate access. Table 3 illustrates the results obtained on the benefits that motivated students to use e-resources.

Table 4: Problems using e-resources used by LIS Students

Problem category or type	Frequency	Percentage
Access problems	50	100%
Literacy and search problem	13	36 %
Lack of adequate skills	6	12%
Frequent power cuts outside	50	100%
Slow internet connection and signal problem	50	100%
High costs associated with Internet use outside	50	100%

(Authors, Survey Data 2021)

When considering the problems that students may encounter when using electronic sources, we have divided the problems into 6 main categories. According to the responses received, 100% (50) of the students have faced main problems. That are Access problems, frequent power cuts outside, slow internet connection and signal problem and High costs associated with Internet

use outside. 36% (13) students have Literacy and search problem and 12% (6) student have Lack of adequate skills.

Conclusion

With the development of information and communication technology to enhance the digital environment, university libraries are striving to attract more users and make libraries more user-friendly by improving their infrastructure. The user-friendly features of e-resources are increasingly attracting users to libraries. It not only improves the quality of research, but also ensures the confidence of faculty and students to stay up-to-date on their desktops with access to a large amount of electronic resources and databases. The information reflected in the above study shows that the students have adequate knowledge of the electronic information sources provided by the University of Kelaniya Library.

Recommendation

The above-mentioned issues must be addressed by paying attention to recommendations in order to improve the supply of e-resources to assist research and learning activities. This can be accomplished by providing students with frequent and mandatory information literacy training targeted at equipping them with the knowledge and skills they need to effectively seek, locate, assess, and use information to satisfy their educational needs.

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Best practices in library services - a case study of nirmala college for women, coimbatore, tamilnadu

Jaculine Mary. M

Abstract

Libraries and information centers play a vital role in enhancing the learning experience, providing students with all the resources and services they need to expand the horizon of their intelligence. At present there are many best practices followed in academic libraries to improve the quality of services and specialization offered. This paper is mainly focused on various best practices, like optimization of resource utilization, value added services, training offered to use E-resources, Best Library User Award, competitions, counseling center providing guidance for students to prepare for competitive examinations, book exhibition, orientation for the freshers etc, followed in the Nirmala Central Library. The findings are based on a random survey conducted during the year 2019-2020 to find out the students' satisfaction level with the library resources and services in utilizing library resources. This article will promote awareness about the resources, services and facilities available and maximize the end users for academic purposes.

Keywords: Best practices, Academic libraries, Library Library services, Information literacy, Nirmala College.

Introduction

The library and information centre of an institution facilitates enhancement of the quality of academic and research environment. To gratify the end-users' requisites effectively, the academic libraries need to recognize and adopt best practices and benchmarks. Best Practice should be innovative and it should create new opportunities and emphasize impact on organizations.

With a holistic vision of empowering Women through education, Msgr.Oubagarasamy, D.D., the visionary Bishop of Coimbatore founded Nirmala College for Women in Coimbatore. The College is a Catholic Institution of Higher Education for Women, started in the year 1948, as second Grade College under the direction of the religious society of the Franciscan Sisters of the Presentation of Mary. Nirmala College, under Coimbatore diocese began under the University of Madras and has been affiliated to Bharathiar University since 1982. The College became autonomous in the year 2007.

The library offers a feast to the intellectual appetite to satiate young minds. It houses 63116 Books, 200 Journals and Magazines both National and International. It caters not only to the needs of Undergraduate, but also satisfies the needs of Postgraduate and Research students. Library is a three storied building, and is fully automated with a wide collection of the latest

Books, Periodicals and CDs, which are updated every year. Books are available with a bar coding facility and are classified by Dewey decimal classification The library functions in a networked environment, and maintains two servers and over 58 PCs to support its various operations and services. Electronic resources such as INFLIBNET- N List and NPTEL are made available to all members of the library via the internet and the College intranet. The library also hosts DELNET, a digital repository for research.

This paper is mainly focused on various best practices followed in the Nirmala Central Library and the satisfactory level of its students, research scholars and the teaching faculty of Nirmala College for Women, Coimbatore, TamilNadu. The findings are based on a random survey conducted during the year 2019-2020on the best practices like automated library activities, purpose of utilization, value added services, training offered to use E-resources, Best Library User Award, competitions, career guidance for students to prepare for competitive examinations, book exhibition, orientation for the freshers etc.

Objectives of the study

To give awareness about the library best practices

To investigate the most satisfactory features of the library services

To analyze the library usage of the students and faculty

To examine the attitude of the library professionals and users towards the best practices

Methodology

To collect the primary data of present study, a survey method was conducted using a well-structured questionnaire. Total of 200 questionnaires were distributed to undergraduate, post graduate, scholars and the teaching faculty of Nirmala College for Women, Coimbatore, Tamil Nadu, India and all the filled questionnaires were received to draw the result of study. The collected data were classified, evaluated and tabulated by using statistical methods.

Data analysis and interpretation

Best practices adopted in Nirmala College Library

Institutional excellence is the aggregate of the best practices followed in different areas of institutional activities." Nirmala College Central Library has been following the best practices to motivate the students to utilize and access library resources catering to their ever-renewing needs for global competency.

The data on best practices have been collected based on the format developed by NAAC and presented them under the four broad sections viz. They are as follows

- Management and Administration of Library

- Collection and Services

- Extent of the Use of Services

- Use of Information Technology

Table - 1 Category -wise distribution of the questionnaire

Users	Questionnaire Distributed	Percentage
UG Students	100	50%
PG Students	50	25%
Research Scholars	25	12.5%
Faculty	25	12.5%
	200	100

Table-1 shows the category wise distribution of respondents. Out of 200 respondents 100 (50%) are UG students, 50 (25%) students are from PG departments, 25 (12.5%) are research scholars and the remaining 25 (12.5%) from the teaching faculty.

Table – 2 Awareness about the Library management software and its benefit

S.No	LMS- Activities	Respondents	Percentage (%)
1	User Entry	142	11
2	Circulation	186	14.5
3	Serial Control	85	6.6
4	Reservation	55	4.3
5	Bar-coding of books	165	13
6	Use of OPAC	179	14
7	Due List	42	3.3
8	ID Card Production	175	14
9	Stock Verification	75	5.8
10	User statistics	172	13.5
		1276	100

Table – 2 explicitly shows the awareness about the benefits of the library management software from 200 respondents. A total of 1276 answers were received in which 186 (14.5%) users are aware of the online circulation, and 179 (14%) use of OPAC, From the above responses, it is inferred that the majority of the respondent have an awareness on the benefits of library management software.

Table – 3 User satisfaction level with collection

Type of collection	Highly satisfied		Satisfied		Somewhat satisfied		Dissatisfied	
	NO	%	NO	%	NO	%	NO	%
Text Books	87	43.5	65	32.5	39	19.5	9	4.5
Reference Books	112	56	47	23.5	23	11.5	18	9
Career Guidance	106	53	72	36	16	8	6	3
Journals	65	32.5	81	40.5	37	18.5	17	8.5
Newspaper/Magazines	72	36	63	31.5	39	19.5	26	13
Thesis/Dissertations	61	30.5	49	24.5	59	29.5	31	15.5
N-List Resources	109	54.5	76	38	7	14	8	4
NDLI Resources	65	32.5	69	39.5	36	18	30	15

Table-3 indicates the number and percentages of responses received from the samples regarding the satisfaction of library collections. It is found that 112 (56%) users are highly satisfied with reference collections, 109 (54.5%) are highly satisfied with N-List resources and 106 (53%) are highly satisfied with career Guidance collections. So, it is inferred that all users of different categories are highly satisfied with the reference books in the library.

Table – 4 Students' feedback about the performance level of library staff

Attitude of library staff	Highly Satisfied		Satisfied		Somewhat Satisfied		Dissatisfied	
	NO	%	NO	%	NO	%	NO	%
Efficiency of staff at circulation counter	125	62.5	55	27.5	13	6.5	7	3.5
Any time availability of staff	119	59.5	48	24	21	1.5	12	6
Helpfulness in locating information	135	67.5	50	25	9	4.5	6	3
Knowledge regarding the resources	99	49.5	78	39	13	6.5	10	5

Table-4 shows the number and percentages of responses received from the samples regarding the satisfaction towards the performance of the library staff. It is evident that,135 (67.5%) users are highly satisfied with the helping attitude of the library staff and 125 (62.5%) are highly satisfied with efficiency of the library staff at circulation counter, So, it is inferred that all users

of different categories are highly satisfied with the service offered to the library users.

Table –5 User Satisfaction level in library services

Library Services	Excellent		Good		Poor		V. poor	
	NO	%	NO	%	NO	%	NO	%
Circulation service	149	74.5	35	17.5	12	6	4	2
Reference books	125	62.5	45	22.5	26	13	4	2
SDI	72	36	89	44.5	25	12.5	14	7
Book Exhibition	81	40.5	73	36.5	31	15.5	15	7.5
Career Notification	93	46.5	60	30	38	19	9	4.5
Reprography	90	45	63	31.5	40	20	7	3.5
User Survey	75	37.5	61	30.5	52	26.5	12	6
Current Awareness Service	101	50.5	56	28	29	19	14	7
Suggestion Box	69	34.5	62	31	48	24	21	10.5
Orientation for the new comers	75	37.5	105	52.5	12	6	8	4

The above table -5 represents the satisfaction level of the users in the library services. The data indicates that 149 (74.5%) of the respondents have stated circulation service as excellent, 125(62.5%) reference Service as excellent and 101(50.5%) Current Awareness Service as excellent, So, it is inferred that all users of different categories have stated circulation service as excellent service provided in the library.

Table – 6 Opinion on Best user Award & Competitions organized

BUA/Competitions	Very Helpful		Helpful		Somewhat Helpful		Not Helpful	
	NO	%	NO	%	NO	%	NO	%
Best User Award	152	76	40	20	8	4	-	-
competitions	104	52	72	36	20	10	4	2

Table-6 indicates that 152 (76%) respondents' opinions that Best User Award is very helpful

to improve library usage, 104 respondents (52%) opined that conducting competitions are very helpful. So, it is inferred that the majority of the respondents have stated that Best User Award and conducting competitions are very helpful to attract the students towards effective use of the library.

Table – 7 Use of Technology Based Library Resources

Digital Resources	Highly Satisfied		Satisfied		Somewhat Satisfied		Dissatisfied	
	NO	%	NO	%	NO	%	NO	%
Internet Browsing	130	65	51	25.5	10	5	9	4.5
OPAC	91	45.5	46	23	37	18.5	26	13
E-Mail	73	36.5	64	32	34	17	29	14.5
INFLIBNET-N List	120	60	67	33.5	13	6.5	-	-
DELNET	68	34	55	27.5	41	20.5	36	18
CD ROM Access	72	36	55	27.5	48	24	25	12.5

Table – 7 depicts the user satisfaction on the digital resources.130 (65%) users are highly satisfied with internet browsing and 120 (60 %) users are highly satisfied with INFLIBNET N-List resources, from this table it is evident that the majority of the respondents are highly satisfied with accessing digital resources through internet browsing and accessing INFLIBNET resources.

Table – 8 Need for Training Programme

Training Programmes	Strongly Agree		Agree		Disagree		Strongly Disagree	
	NO	%	NO	%	NO	%	NO	%
Orientation/Workshop	155	77.5	30	15	12	6	3	1.5
INFLIBNET N-List	160	80	37	18.5	3	1.5	-	-
NDLI	153	76.5	42	21	3	1.5	2	1

Table - 8 exhibits the respondents view on training programmes in accessing the resources. It is found that 160 (80%) users strongly agree with need of training for accessing INFLIBNET resources, 155 (77.5%) strongly agree with orientation and workshop for familiarity in accessing e-resources and 153 (76.5%) users are strongly agreeing for NDLI training workshops. So it is inferred that the majority of the respondents strongly agree with the conduct of training programmes.

Conclusion

It is concluded that continuous reformation and up gradation of library services brings more number of users towards the library. Use of technology in effective dissemination of

information products and services in a library has always generated good results. Application of library management software and automation of all in-house activities in academic libraries with scanning, user entry and identity and web OPAC facilitates the standardization of information centres, Regular orientation classes, training and awareness programmes with the new techniques will also be a best practice in the extent of use of library services. The above study found that the majority of the students were inspired by the best practices following in our library. Creating awareness on best practices will help improve the quality of library services. The relationship between the library staff and the users will definitely create a supreme atmosphere among the user community.

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Usage of Library Services during the COVID 19 Pandemic in Rajarata University of Sri Lanka

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Abstract

In Sri Lanka, many academic libraries provide their library services on-premises until the sudden unexpected Covid 19 pandemic. The pandemic caused a huge impact on ongoing library services and library professionals were challenged to continuing library services with the limited resources. Considering the prevailing situation, the library system of Rajarata University of Sri Lanka initiated new service delivery platforms to continue the existing library services and continued previously provided services. This research analyses the usage of library services provided by the main library during the pandemic. Evaluated services were online resource request and delivery service, online awareness sessions, past papers delivery service through Moodle, online public access catalog service and library website. Different evaluation methodologies were used to evaluate the provided services and a new research model was developed using separate evaluation criteria for each evaluation methodology. The selected evaluation criteria were the number of resource requests, participation percentage of online awareness sessions, access percentage of past papers Moodle course, usage of online public access catalog and usage of the library website. Each criterion was analysed using a different methodology and results were presented separately. The study concludes that the main library of Rajarata university of Sri Lanka was able to provide a significant service to the university community during the Covid 19 with the help of technology, even though the library was not physically accessible.

Keywords: Library services, Covid 19, Online resource request and delivery service, Online awareness sessions, Web analytics

Introduction

The novel coronavirus has made a significant impact to all most all the ongoing activities in the world. Many of the countries had to undergo partial or full lockdowns (Humaid et al., 2020). The lockdown of countries also affected the education sector and the education professionals had to take various approaches to continue the services provided (Espino-Díaz, Fernandez-Caminero, Hernandez-Lloret, Gonzalez-Gonzalez & Alvarez-Castillo, 2020). With the purpose of distributing knowledge and information to the university community, the library system of Rajarata University initiated new service delivery platforms during the Covid 19 pandemic. As students are away from university premises, the library introduced an online resource request and delivery service via emails so that students could maintain their reading habits even in the midst of the pandemic. Online awareness session series provided more details regarding newly introduced services and continued services. Since the Rajarata University library system is still implementing the remote access facility for past papers server, library system provided the open-access facility for past papers via Moodle, the Learning Management System (LMS) of

the university. Further, an online library registration service and online clearance service were introduced. In addition to that, previously provided Online Public Access Catalog (OPAC) service and service of the library website were continued. OPAC service is used to provide information regarding existing book titles and the library website is used to post the most recent updates to the patrons. This research focused in measuring the usage of selected newly introduced service delivery platforms (online resource delivery, online awareness sessions, past papers delivery using LMS) and continued library services (OPAC, library website) that the main library provided during the Covid 19 pandemic.

Objectives

As this pandemic is a new challenge for both library professionals and patrons, it is essential to measure the usage of providing services for future decision making. Therefore, the main objective of the research was measuring the usage of provided library services during the Covid 19 period. Moreover, research has been carried out to identify the strengths and weaknesses of the newly introduced service delivery platforms and to identify the methods to uplift the library services. The research can be used as a SWOT analysis to implement a new library automation system. Ultimately, the obtained results can be used to analyse the effectiveness of library contribution for the online teaching and learning process during the Covid 19 pandemic.

Methodology

Based on the selected services, came up with a model which is shown under Figure 1, for measuring the usage of library services in Rajarata University of Sri Lanka.
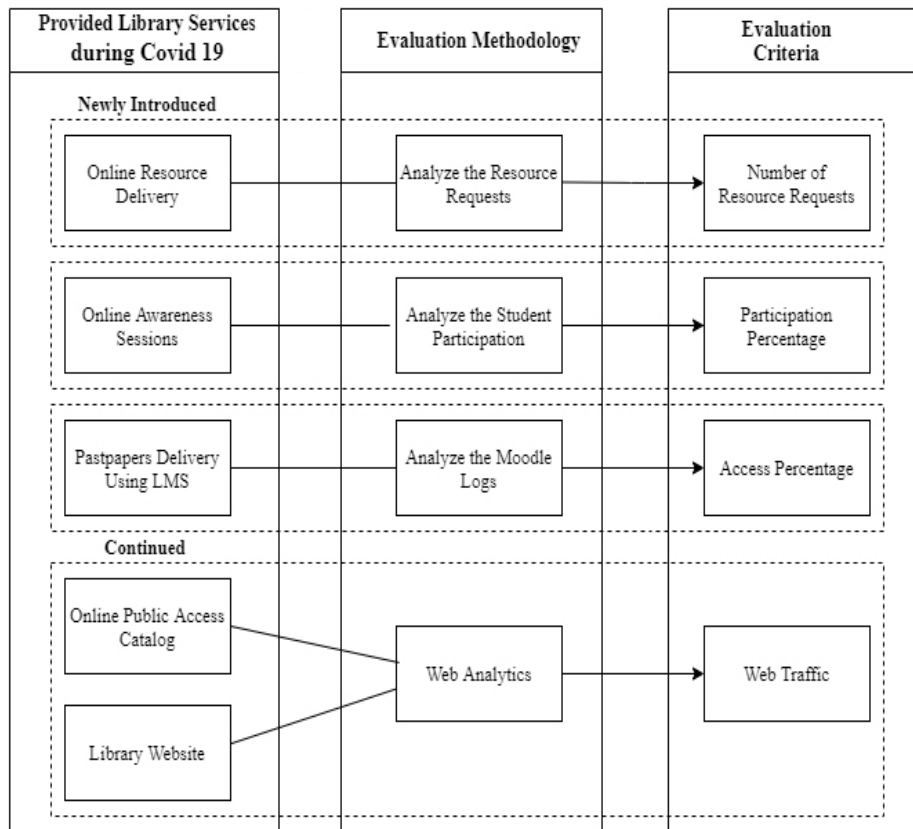
Figure 1. Developed model for measuring the usage of library services

In this model, the usage was measured with different evaluation methodologies and evaluation criteria. Data was gathered under selected evaluation criteria from May 2020 to August 2021, intending to obtain a more accurate output from the research.

The usage of the online resource delivery service was determined using the number of resource requests forwarded by the patrons within the selected period. The Main library of the Rajarata University organized a number of online awareness sessions during the pandemic and the participant percentage was used to obtain the usage of the service. Participant percentage was calculated by dividing the number of participants from the expected participants.

$$Participant\ Percentage = \frac{No\ of\ Participants}{Expected\ Participants} \times 100\%$$

The Access percentage of the Moodle course was used as the evaluation criteria of the introduced past paper delivery service. As the Library system distributed the past papers through LMS, the Moodle logs generated within the selected time period were used to evaluate the access percentage.

$$Access\ Percentage = \frac{Active\ Participants\ during\ selected\ time\ period}{No\ of\ Participants} \times 100\%$$

The evaluation of the continued services was done using web analytics. Web analytics is a widespread method that is used to make a better assessment of websites or web pages (Mandal, Sukumar, 2019). There are numerous inbuilt tools introduced to perform web analytics and they provide an enhanced view of user interactions (Azim & Hasan, 2018). In this study, SEMrush web analytics tool was utilized to analyse the web traffic of both OPAC and library website.

Results

The proposed model was followed, and the obtained results were presented using diagrams and charts.

Usage of online resource delivery service – As the library responds to all resource requests, delivered resources via librarian's email were listed under a delivered month and obtained the monthly usage.
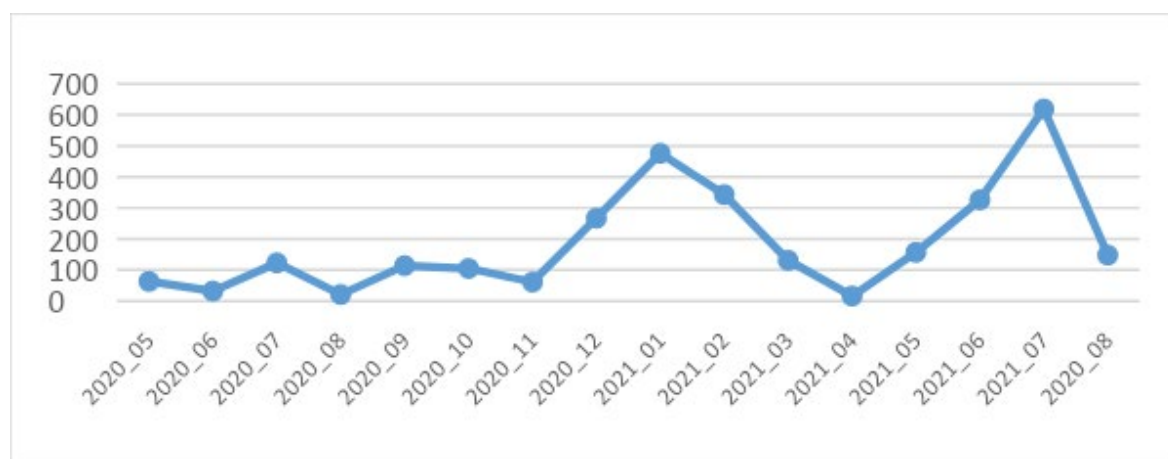
Figure 2. Usage of online resource delivery service

Usage of online awareness sessions - 85% Participation percentage for the online awareness sessions was obtained.

Usage of online past papers delivery - Participant's last access date of the past papers Moodle course showed 100% level usage of Past papers delivery service.

Usage of OPAC - Figure 3 shows the traffic analysis chart of OPAC site generated by the SEMrush web analytics tool for the usage of the OPAC service from May 2020 to August 2021.
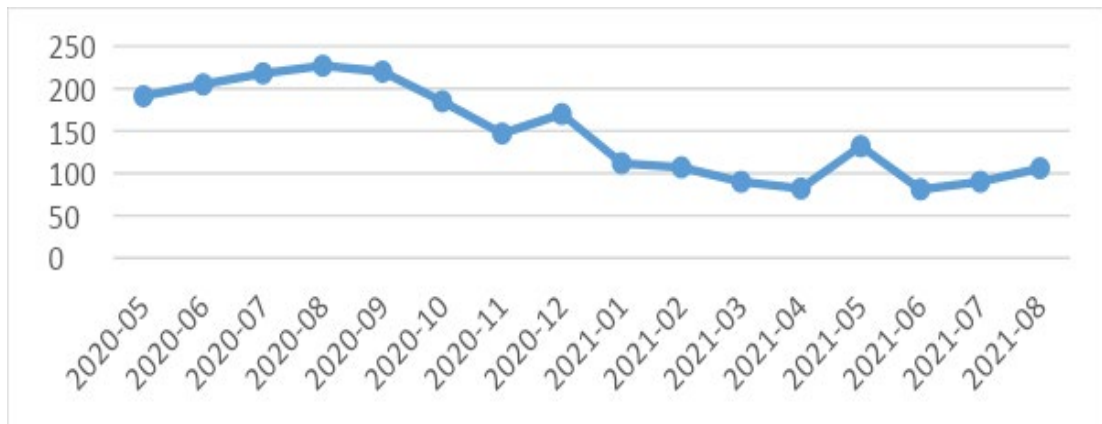
Figure 3. Usage of OPAC

Usage of the library website - Library website usage was also obtained from the SEMrush traffic analysis report and the chart shows the usage of the library website during the selected period.
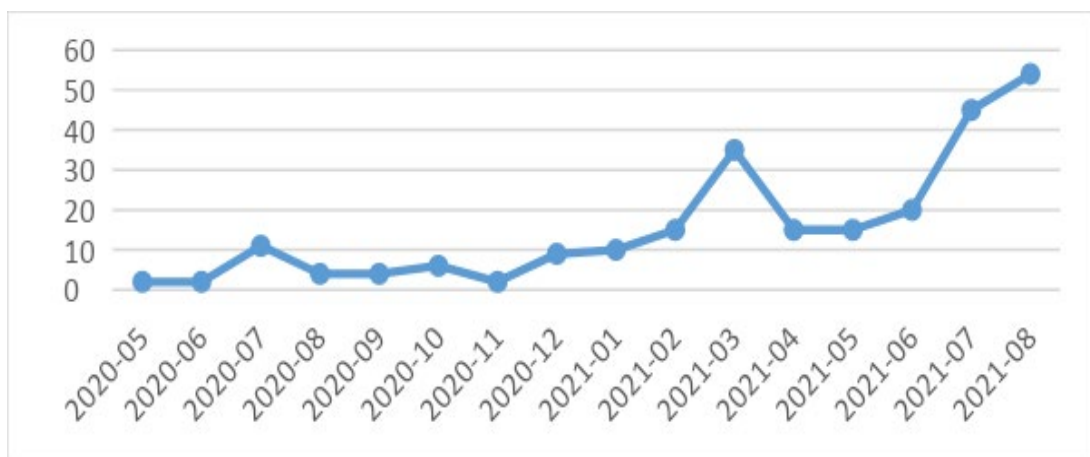
Figure 4. Usage of library website

Conclusion

Key findings show that the online resource delivery service played a significant role during the Covid 19 pandemic period for the online teaching and learning activities. Although most of the patrons actively engage with this process, the obtained results show a significant decrease in extra reading habits. Most of the patrons had only focused on the subject related materials and had shared the requested materials with others via social media groups. That shared material usage is not included in the obtained results. Participation percentage and student feedbacks conclude that the usefulness of online awareness sessions for continuing the library activities is satisfying. The obtained result for the past papers delivery service only considered the Moodle enrolled users and it does not provide a clear analysis of the patrons as a whole. Moreover, the usage of OPAC and the library website shows student engagement with library services during the pandemic.

Recommendations

With the analysis of the study results, it is recommended that remote access facility for institutional repository and past papers server should be provided to the patrons during the pandemic period. Document scanning facilities, infrastructure facilities must be improved, and sufficient staff training is needed to provide online services. Moreover, it is better to maintain a digital repository using delivered documents. It is important to update the governing bodies about the library services and improve the allocation time for library awareness sessions. Further, patron feedbacks should be evaluated to measure the effectiveness of provided services and all the obtained data should be taken for developing plans for the post Covid era.

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Research Information Management by Sri Lankan Universities: A webometric analysis

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Abstract

Universities are playing a vital role in the research and development of the country. Rapidly growing scholarly communities are connected electronically to their peers, colleagues, academic administrators, funding agencies and policymakers. In this situation, research information management has become important for the universities to organize, manage, preserve, evaluate, assess and disseminate their scholarly work. Research information includes researcher profile and affiliation, grants, projects, funding, publications, patents, awards and scholarly impact. This study aims to observe how Sri Lankan universities manage their research information through their websites. Seventeen universities' websites were analyzed for its research information management, such as data on people, research facilities, research projects, and research output. The result of this study reveals that ten universities have a separate menu for "Research", three universities have staff profiles through a single link, eight universities have displayed their research facilities, and fifteen universities have maintained their research repository to showcase their research output. Further, research information displayed through the university websites was discussed and scattered under different web pages and systems. In this conjunction, research performance and its progress could not reach its target audience and did not satisfy the stakeholders' expectations. Finally, it was recommended to develop a single system to manage research information using suitable applications available in the market.

Keywords: Research Information Management (RIS), Research network, Sri Lankan Universities.

Introduction

Research Information Management (RIM) has become one of the core functions of universities as the academic institutions priorities the organization, management, preservation, evaluation, assessment and dissemination of its rapidly evolving scholarly work. It also plays a critical role in university rankings. Research information encompasses the institution's researcher profiles and affiliations, grants, projects, funding, publications, patents, awards, impact statements and media reports. Vast range of information can be used for seeking funding, research collaboration, finding educational or business opportunities, resource allocation, institutional visibility, research governance, and policymaking (Schöpfel, Prost, & Rebouillat, 2017). In addition, the advancement of information technology and the radical open-source movement resulted in a breakthrough in the management of research information as numerous tools and

platforms facilitate efficient RIM in the digital space (Biesenbender, Petersohn, & Thiedig, 2019).

Sri Lankan universities utilize Institutional Repositories (IR) and content management systems to manage and provide access to their research information. They use the institutional repositories to spawn the movement toward the open-access initiative and also bridge the digital divide and improve their placement in various accredited university ranking systems by increasing the visibility of their research output. These IRs primarily contain scholarly outcomes such as journal articles, conference papers, books, book chapters, dissertations and unpublished reports. Also, some IRs contain course materials, image files and datasets.

Besides, the universities use content management systems to showcase their staff profiles and affiliations, awards, projects, funding, and scholarly events such as symposiums, workshops and conferences. However, these platforms could help the institutions to achieve higher research impact, which includes assisting the relevant stakeholders in discovering, understanding, engaging, and promoting research. Increasingly, various bibliometrics and altmetrics methods are being used to measure the research impact, visibility and output quality. This study analyses how Sri Lankan universities manage the research information, how much it enhances research visibility, and the likely future trends of RIM.

Research objective

This paper aims to analyze how Sri lankan universities display their research information through their websites.

Research questions

The following research questions have been formulated to analyze the present situation of RIM in the Sri Lankan universities.

- How do the Sri Lankan Universities display their research information?

- Does this research information provide adequate visibility and accessibility for their research performance?

Methodology

The webometric analysis was designed to collect detailed information to address these research questions. This study collected data from the websites of seventeen universities which are under University Grant Commission of Sri Lanka to address the research questions.

Results

RIM has emerged as a strategic priority for universities. Higher educational institutions in Sri

Lanka developed infrastructures to support researchers to manage their research information more effectively, with service ranging from advice to repositories (Cox & Pinfield, 2014). At present, Sri Lankan Universities are highly concerned on University ranking (Wijetunge, 2021). There are a number of international ranking systems in operation to rank the world universities. University ranking systems consider research performance as one of the measures based on research volume, research income, research reputation, research influence (citation), citation per faculty and international collaboration. Most of the ranking systems are using indexed databases and websites as data sources to measure research performance (URAP, 2021.). This study intended to find out how Srilankan universities display their research information and suggest modes to display our research information to reach more visibility and impact.

Figure 1 displays whether the universities have separate menu to display research performance in their respective websites and basic research information. Basic research information includes data on people, research facilities, research projects (funding details) and research output (publications) (Biesenbender et al., 2019). Out of seventeen universities under University Grant Commission of Sri Lanka 10 (58.8%) have a separate menu for research in their university webpages. However, the University of Visual and Performing Arts has a research menu under 'academic menu' on their website.

Profile of researchers includes their name, job title, affiliation, research interest/ skills, etc. Only three (17.67%) universities have displayed their university staff profile through unique links. Other universities have their staff profile under the respective departments or faculties. This results in navigating through the department or faculty websites, when a researcher is searching for an Expert related to his/her field of interest in a particular university. It is envisaged that if universities organize their staff profiles according to disciplines/subjects, it would give more visibility for their Experts.

Research facilities includes laboratory, special place, instrumentation, experiments, and research activities (present and past). In Sri Lankan university websites, 8 universities have displayed their research facilities in different forms and categories. Among them, University of Peradeniya displayed comprehensive details on their research performance including, research sessions, dissemination, impact, research support, people, journals, research policies, research centers, research partners, and institutional repositories. Even though, all other universities have created separate webpage to indicate their 'research performance', which is not updated on regular basis.
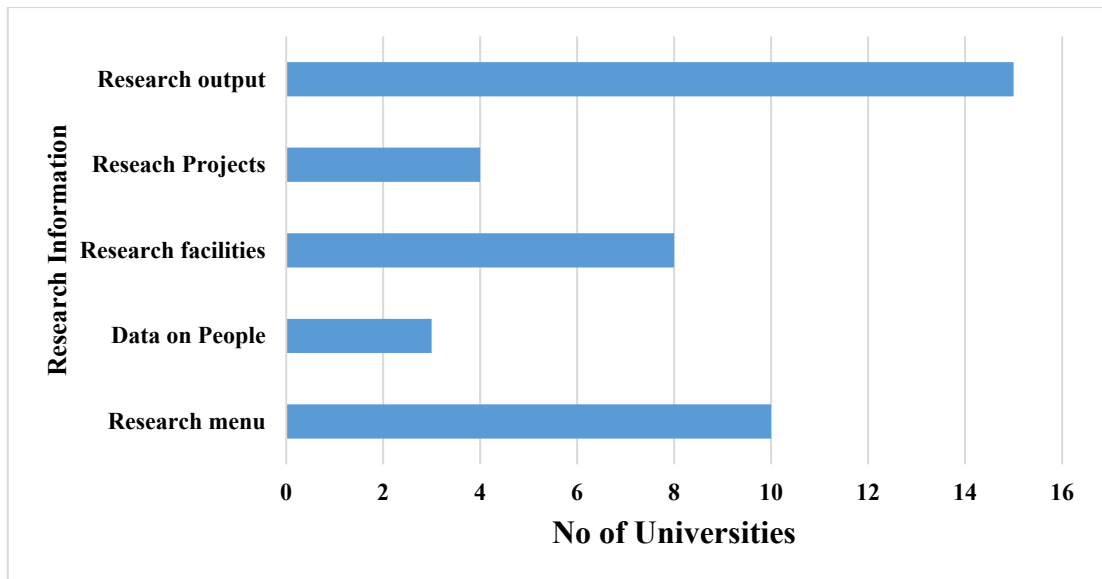
Figure 1: Relevant research information by the Universities

Research project includes name of the project, duration, funding details, programs, international collaboration, etc. Only 4 (23.5%) universities have updated their research project details under the title as "research grants", "project" or "grants".

Finally, research output includes publications, research data, patents, etc. Among the seventeen universities in Sri Lanka, 15 (88.2%) universities have developed their own repositories to manage their publications and patents. These universities created their repositories using the content management system (DSpace). In all Sri Lankan universities, Libraries are managing these repositories to showcase their research output (Mashroofa & Seneviratne, 2016). Repositories are expected not only to preserve the scholarly publications but also to provide statistical information of its content (Aguillo, *et al* 2010). Three groups of indicators, such as activity related (document deposited by authors, institutions and subject), usage related (visits and downloads) and visibility related (citations and web links) could be deployed to monitor repository activities and its impact. University of Jaffna activated this facility for its repository. The relevant screen is shown in Figure 2.
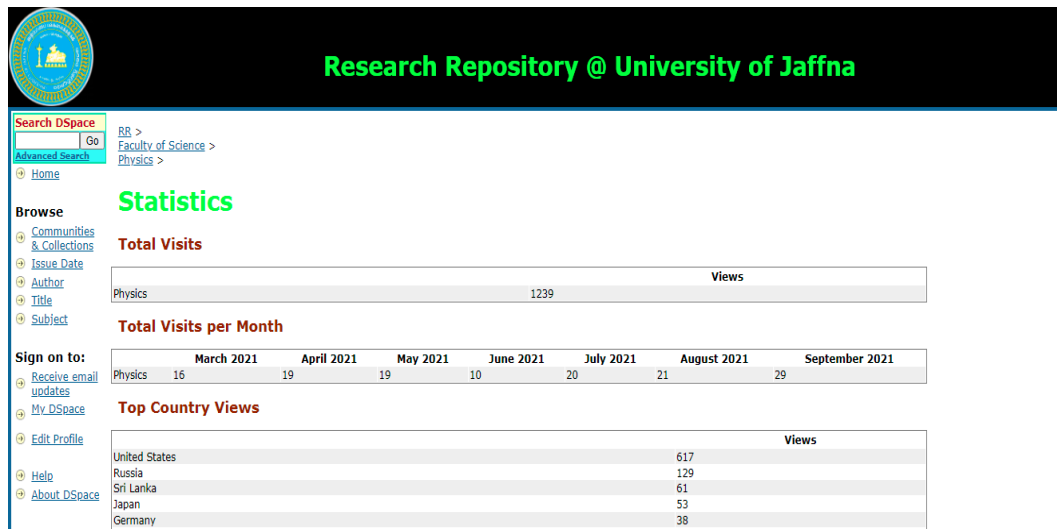
Figure 2: Statistics page of the Research Repository of the University of Jaffna

Discussion

Answer to the first research question, how do the Sri Lankan Universities display their research information? The findings of this study shows that Sri Lankan universities are displaying their research information and activities through their university web pages. However, that information is scattered in different webpages of the respective universities, such as, institutional repository, staff profile, grant management systems, funding agencies, open and commercial citation databases and scholarly publishers. In this conjunction, research performance and its progress of an institute is not reached to the target group due to lack of visibility and publicity.

Based on the second research question develop as Do this research information provide adequate visibility and accessibility for their research performance? The major stakeholders of research information are, researchers, faculty members, administrators, funding agencies, and publishers. These stakeholder's needs and expectations are different. A researcher may expect to find a mentor or advisor, locate facilities, recent research findings and fellowships on their field of interest. Academic research members may expect to minimize the time spent on searching repetitive data and its visibility to showcase their research findings to their peer groups and increase their funding opportunities. On the other hand, administrators may expect a system which could easily provide research reports, assess the research performance of an institute, and find research progress and area of expertise of faculty / department. Further there is a need for an institute to develop a single system, which could manage all research information, assess its impact, and improve visibility according to international standards. There are a number of open source applications presently available to manage research

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information. These systems will support the collection, organize, and visualize scholarly activities and also enable the universities to showcase their research output, discoveries, funding details and collaboration (national/international) through a single system.

Conclusion

Developed countries are managing their research information through well-developed systems. Sri Lankan universities are lacking in displaying their research information. At present universities explore their researcher profile, grants, projects they are working on, funding they received, scholarly publications, patents and awards information through different web pages. It has failed to provide visibility and accessibility for the research community. India has developed its national level research information system referred as "Vidwan" using VIVO open source profile management system. Several other universities in India also developed their own research information system at university level. Developing a holistic research management system with easy accessibility and visibility has become important and inevitable, nowadays. Sri Lankan universities lack in displaying their research information. Hence, this study recommended the Sri Lankan universities to develop a holistic research management system which could provide all the research information with easy accessibility and visibility.

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User Satisfaction with Library Resource & Services: With special reference to Ambepussa Maha Vidyalaya, Warakapola, Sri Lanka.

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Abstract

The habit of reading is lifelong continuous and regular performance of the act of reading as a result of the perception of reading as a necessity. The habit of using libraries, however, means continuous and regular use of a library of the individual with the purpose of meeting his/her intellectual requirements. Particularly for the student teachers constituting the teachers of the future having their education in the education faculties, it is expected that they have gained the habit of reading and developed the skill of using libraries efficiently.

In the present study an attempt is made to investigate the User Satisfaction with Library Resource & Services in Ambepussa Maha Vidyalaya, Warakapola, Sri Lanka. The survey was conducted by using questionnaires with close and open ended questions. School teachers 48 selected for this study using Krejcie and Morgan sample table. The response rate was 92%, considering the frequency of going to the library 39% mentioned as every 2-3 days. 32% responded have mentioned that they go to the library to gather new information in the subject area. According to their responses, 59% mentioned that they spend less than one hour in the library. There are good percentages of users, 70% who are satisfied with the resource & services of the library but others wish for improvement. The study identified that users faced lack of current reading materials, lack of sitting facilities and borrowing time is not sufficient. Based on the findings of the study the following recommendation is made, upgrading the school library with necessary information resources and services to develop knowledge and skills of teachers and providing more up-to-date information materials relevant to school teaching and learning.

Key words*: Library use, School teachers, Sri Lanka, Education, Library services. School Library*

Introduction

The school library is the backbone of functional education, without which academic excellence cannot be achieved. Kolade (2001) defines school library "as the nerve center of the school for it is expected to play an important role in the school curriculum since it has unlimited fields of knowledge". In her own contribution Fayose (1983) defines "school libraries as that part of the school where there is an organized collection of books, periodicals, newspapers, filmstrips, videotapes, audio recordings of all types, slide, computers, study kits and other information bearing materials housed for learning and personal interest and recreational activities".

Owate and Okpa-Iroha (2013), said that a school library is a collection of a wide variety of library materials and resources housed in each school, centrally organized by staff, professionally prepared to offer services to students and teachers that will enrich and support

the educational enterprises. Therefore, the role of a library in any school in Nigeria cannot be overemphasized as the library provides the necessary impetus to all categories of learners in schools from the slowest learner in the kindergarten to the most intelligent senior in high school through the provision of print and non-print materials to aid learning.

Objectives

This study aims at answering the following research questions:

- To identify the frequency of library, use by the teachers.

- To identify reasons for going to the library by teachers.

- To assess the level of user satisfaction towards the library resources and services.

- To identify the problems faced by the teachers when using school libraries.

Methodology

The survey was conducted by using questionnaires with close and open ended questions.

Population of the study

As a sample used school teachers 48 and they were selected using Krejcie & Morgan table. 44 responded and the rate was 92% from Ambepussa Maha Vidyalaya.

Result & discussion

Table 01. Frequency of going to the library

Item Type	No. of usage	% of Users
Never	00	00
Every day	09	20
Every 2-3 days	17	39
Once a week	08	18
Once a month	03	07
When I need	07	16
Total	44	100%

Table 01 shows that, 39% respondents mentioned that they use the library every 2-3 days, 20% mentioned that they are going to the library every day & 18% respondents mentioned that they use once a week.

Table 02. Reasons for going to the library.

Item Type	No. of usage	% of Users
For research	01	02

For preparing for exams papers	08	18
For spending spare time	04	09
For gather new information in the subject area	14	32
For meeting friends	02	05
Reading books	06	14
Reading journals & newspapers	09	20
Using audio-visuals	00	00
Total	44	100%

Table 02 shows that 32% of respondents mentioned that they use the library to gather new information on the subject & 20% mentioned that they used the library for reading journals and newspapers.

Table 03. Duration of stay in the library

Item Type	No. of usage	% of Users
Less than 1 hour	26	59
1-2 hours	16	36
3-4 hours	02	05
More than 5 hours	00	00
Total	44	100%

Table 03 shows that 59% of respondents mentioned that they spend less than one hour and 36% mentioned that they spend 1–2 hours in the library.

Table 04 Satisfaction with library resources and services

Statement	No. of usage	% of Users
Yes	31	70
No	13	30
Total	44	100%

According to table 04, 70% respondents mentioned that they are satisfied with library resources and services.

Table 05. Problems & challenges when library use

Problem	No. of usage	% of Users
Lack of current reading materials	23	52
Lack of subject knowledge among library staff	03	07
Not well trained staff	00	00
Borrowing time is not sufficient	06	14
Lack of time	05	11
Lack of knowledge in using the library resources	00	00
Lack of sitting facilities	07	16
Total	44	100%

According to table 05, respondents mentioned that they face several problems using the library, especially the lack of current reading materials, lack of sitting facilities & borrowing time is not sufficient.

Conclusion

Based on the findings of this study, it is concluded that considering the frequency of going to the library most of them are mentioned as they go to the library every 2-3 days. Respondents mentioned that they go to the library to gather new information in the subject area. According to their response they spend less than one hour in the library. There are good percentages of users satisfied with the library resource & services, but others wish for improvement. When they use the library they face several difficulties like, lack of current reading materials, lack of sitting facilities and borrowing time is not sufficient. The library should be aware of facilities among teachers. The library should upgrade library facilities with necessary information resources and services to develop the knowledge and skills of teachers and provide more up-to-date information materials relevant to school teaching and learning. Enhance library facilities relevant to subject areas in the school syllabus.

Recommendations

Based on the findings of the study, the following recommendations were made;

- Upgrading school libraries with necessary information resources and services to develop the knowledge and skills of teachers.

- Providing more up-to- date information, materials relevant to school teaching and learning.

- Improve sitting facilities in the library.

- Extend the borrowing time period, especially academic staff of the school.

- Conducting information literacy skills courses for teachers to make their use of the library more effectively and to enable them to transfer these skills to the learners.

- Developing innovative marketing strategies in libraries to promote services that are offered for school teachers.

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Libraries and COVID-19: What users expressed on Twitter

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Abstract

Due to the pandemic hit, libraries worldwide face hard choices around which services to offer and how. In this study, we present the Twitter sentimental analysis on libraries and COVID-19. We used the Mozdeh Big Data Text Analysis to collect 23 tweets in the English language. The findings reported that most female and male tweets have come under the score of "1", which means the positive and negative sentiments are "None". The hashtag '#libraries' was the most occurred hashtag in the user tweets (3 times). Furthermore, the word occurrence delineated that the words "and", "librarie" and "covid-19" were the frequented ones with 49, 41 and 39 times, respectively. The present study results give the stakeholders a hint to analyse the user sentiments for different decisions to improve the library services amid these uncertain pandemics.

Keywords: Twitter, Sentimental analysis, COVID-19, Libraries. Social media

Introduction

Twitter is a popular microblogging platform that people use to express their thoughts and opinions(Kouloumpis et al., 2011). Sentimental analysis is a core area in Twitter that recently got attention from researchers (Giachanou & Crestani, 2016). Analysing the sentiments of people they share on social platforms, especially on Twitter, will help decision-making, especially regarding pandemics (Chandra & Krishna, 2021) (Chew & Eysenbach, 2010). As far as libraries are concerned, how people expressed their views and opinions amid the COVID-19 pandemic on Twitter would give proper insights to serve the users better. In this study, we carried out a sentimental analysis of the people's (patrons, library staff, government or any other stakeholders) tweets during the pandemic. After assessing the sentiments expressed, libraries can plan or replan further actions to deliver the services.

Objectives of the study

To measure the gender-wise sentiments of tweeters regarding libraries and COVID-19.

To find out the most used hashtags in tweets.

To ascertain the most occurred words in tweets.

Data extraction and methodology

To extract the data, we used the Mozdeh Big Data Text Analysis software. A project titled "Libraries and COVID-19" was created first. Under this project, the data extraction was carried out by hitting the keyword "Libraries and COVID-19" as a query after limiting the language to

"English". Since the software wanted to access Twitter for searching, permission was given by typing the pin as it appeared. The software started to search for the tweets and again selected the language "English" for analysis by setting the default number "1". Thus, a total of 62 tweets

were produced, in which 23 tweets were found apt for the study after clearing the duplicate tweets. The result was made in 3 seconds. Later, the tweets were analysed separately for males (13 tweets) and females (10 tweets). The sentiments, according to the software was as follows,

None (1), Weak(2), Moderate(3), Strong(4) and Very Strong(5) (Applicable for both positive and negative sentiments)

Results

Sentiment analysis

Table 1 and Figure 1 show the result of the sentimental analysis carried out in the software. The score of the sentiments is numbered from 1 to 5, i.e. 'None' to 'Very strong'. Positive and negative emotions are displayed differently, and as per Figure 1, blue-coloured bars represent positive and orange coloured bars represent negative feelings. It is seen that most of both female and male tweets have come under the score of "1", which means the positive and negative sentiments are "None". Weak positive emotions were logged 20% for females and 15.38% for males, while negative was 40% for females and 23.08% for males. No feelings were recorded under the category of "Strong and Very strong."

Table:-1 Sentiment analysis as per gender

	Female		Male	
Score	Positive	Negative	Positive	Negative
1	60.00%	60.00%	76.92%	76.92%
2	20.00%	40.00%	15.38%	23.08%
3	20.00%	0.00%	7.69%	0.00%
4	0.00%	0.00%	0.00%	0.00%
5	0.00%	0.00%	0.00%	0.00%

Female   Male
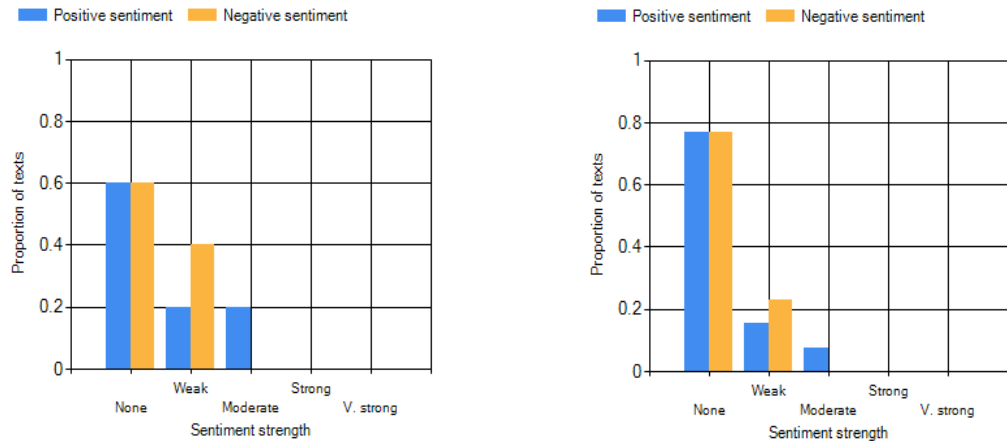
Figure:1 Sentiment analysis as per gender

Top 5 hashtags

The tweeters use a total of 21 hashtags to express their opinion, and as per Figure 2, the most happened hashtag is "#libraries", with a total count of 3, which comprises both males and females tweets. The following most frequented hashtags in the row include "#covid-19", "#liblearnx", "#worldpatientsafetyday", and "#uoft" with one occurrence.
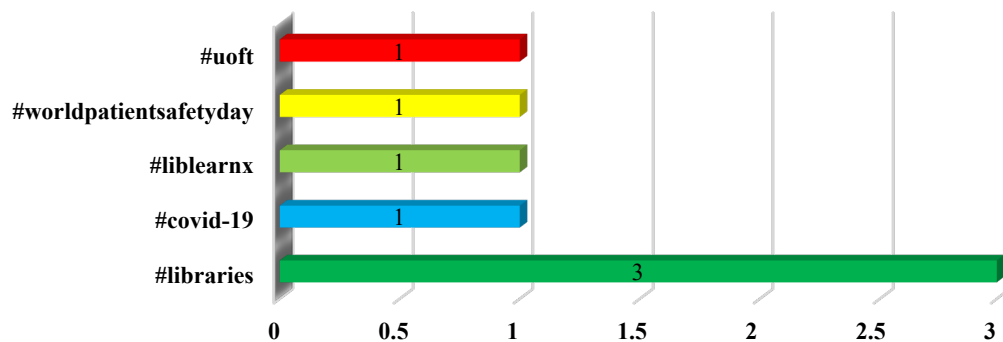
Figure:2 Top 5 hashtags

Top 10 words

The software extracted a total of 1000 most used words by the tweeters in their tweets. The most employed ten words are displayed in Figure 3. According to the figure, the word "and" occurred 49 times, followed by "librarie" with 41 times and "covid-19". The rest of the terms and their frequency of occurrence are as follows, "the" with 36 times, "in" with 27 times, "to" with 27 times, "of" with 26 times, "a" with 19 times, "are" with 17 times and "test" with 16 times.
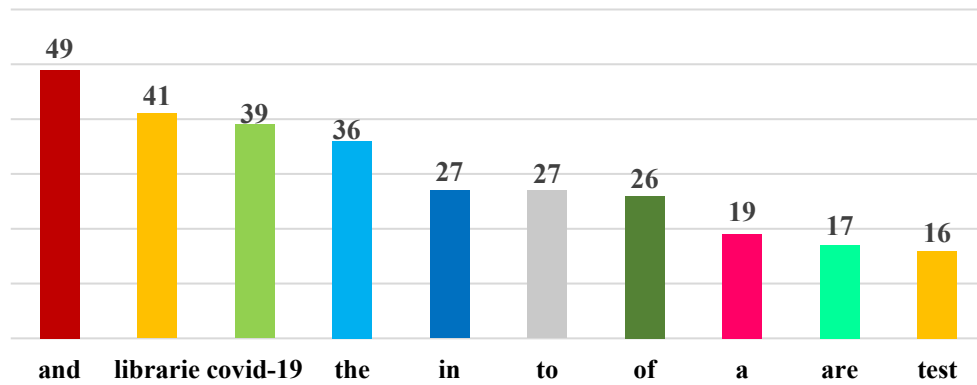
Figure: 3 Top 10 words

Findings, conclusion and recommendations

We analysed the users of Twitter regarding the pandemic outbreak and library operations by analysing the sentiments using Mozdeh software. The study was based on 23 tweets available in the English language, including 13 tweets by males and 10 tweets by females. It was reported that both males and females had 'None to Weak' positive and negative feelings expressed through their tweets. The most occurred hashtag was "#libraries", with a total occurrence of 3 times in the tweets. The most used word in tweets was "and" with 49 times. Analysing the sentiments of the users always help the libraries to take quick action to improve their services. Thus, it is recommended to have a Twitter presence for the libraries for communicating both formal and informal matters with the patrons, especially in these kinds of pandemic times.

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A bibliometric analysis of COVID -19 research papers indexed in SCOPUS: Comparison of Sri Lankan context with Global context

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Abstract

Health burdens and the socio-economic crisis are the unprecedented global effect of the pandemic caused by novel Coronavirus. As numerous research papers have been published on COVID-19, bibliometric evaluation for valuable information is crucial as it helps to identify suitable researchers and institutions for appropriate consultancy and suitable journals for publication. This study aims to bibliometrically analyse the medical science-related COVID-19 research papers indexed in SCOPUS, and compare the Global and Sri Lankan context. Therefore, highly cited articles, most impactful authors and journals, most prolific and productive country, and co-authorship by country were analysed. The data were mined from the SCOPUS database. SCOPUS analytic was used to analyse initial results and VOSviwer software was used to analyse citation and co-authorship. "Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China" was the most cited article in the global context, and "Enhancing immunity in viral infections with special emphasis on COVID-19: A review" was obtained the highest citation in the Sri Lankan context. Y. Liu, was the most impactful author internationally, whereas Priyanka Ranasinghe was the most impactful author in Sri Lanka. The Lancet and the New England Journal of Medicine were the most impactful journals globally and locally, respectively. China was the leading country, whereas the United States was the country that had the largest co-authorships link strength and produced the highest number of publications. The Sri Lankan authors highly collaborated with the USA, UK and Australia. Hence China is in the leading position in the case of the researches on COVID-19. In Sri Lanka, review articles with meta-analyses are mainly produced and this type of article receive the highest citations.

Keywords: *Bibliometric analysis, COVID-19, highly cited articles, most impactful journals, co-authorship by country*

Introduction

The spread of the COVID -19 virus impels an unprecedented global human social and economic crisis and is considered a threat to the core of human existence. Since the first COVID-19 case was identified in Wuhan, China, in December 2019, 221 countries and territories around the world have reported a total of 218,946,857 confirmed cases of COVID -19, including 4,579 518 deaths as of 3rd of September 2021 worldwide (WHO, 2020).

Due to the exponential growth of these coronavirus cases, it was declared as an international public health emergency by the World Health Organization (WHO) on 30th January 2020 and as a pandemic on 11th March 2020 (Mahase, 2020). In many countries, lockdowns, which severely damaged several businesses across industries was implemented due to the pandemic

outbreak (Donthu & Gustafsson, 2020; Leite, Hodgkinson, & Gruber, 2020 as cited by Verma & Gustafsson, 2020). Hence, the impact tends to extend towards economically too.

In order to provide recommendations and suggestions as to the remedies for this crisis, the academia also joined with the health sector to fight against the pandemic. As the publication of research papers increases exponentially along the pandemic in shorter period of time, evaluating the quality of those papers and obtain valuable information is crucial. Among the research papers, scientific and medical research plays a vital role in tackling COVID-19, and controlling its transmission. Awareness of the research trend on COVID-19 is also believed to fill the knowledge gaps by inducing the researchers to conduct in the areas that are necessary.

Scientometrics helps to identify suitable researchers and institutions on a specified topic for appropriate consultancy. In addition, the policymakers could also identify the researchers as well as institutions for providing funding support to undertake researches (Yu et al., 2020). SCOPUS is one of the databases used in bibliometric analyses for its transparency and coverage.

Objectives

This study aims to analyse the medical science related COVID 19 research papers indexed in SCOPUS and compare between the global context and the Sri Lankan context. In this regard, the study analysed highly cited articles, most impactful authors and journals, most prolific and productive country, and co-authorship by country.

Methods

The data was mined from the SCOPUS database on 04th September, 2021. Initially, the search was performed by using the keyword of "COVID 19". Then results were filtered for publication year for 2019 to 2021, language for English, publication type for the research article, and the subject areas were limited to 'medicine', 'Biochemistry, Genetics, and Molecular Biology', 'Immunology and Microbiology', 'Pharmacology, Toxicology, and Pharmaceutics' 'Neuroscience' and 'Psychology' and other subject area were excluded. This search yielded 60150 research papers. Since it is not possible to download all the records from the SCOPUS, the results were arranged in an order citation count per article from highest citation to smallest citation. After that, the first two thousand records were downloaded as .CSV file for bibliometric analysis. The same search quarry was then specified only to Sri Lanka and the search yielded 73 records. It was download as .CSV file for bibliometric analysis.

SCOPUS analytics was used to analyse initial results (60150) to get an idea of the overall picture of data, and VOSviwer software was used to analyse the bibliometric analysis of the first two thousand articles. Citation, bibliographic coupling and co-authorship were analysed.

Results and discussion

Highly cited articles

When considering the citation count per article, 60 articles had citations of more than a thousand per article, 49 articles received citations within the range between 500 and 1000, and 1135 articles were with citations, within the range from 100 to 499.

The research paper "Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China" written by Huang et al. and published in the journal "The Lancet" was the most cited article that obtained 17,807 citations, and the research paper "Clinical characteristics of coronavirus disease 2019 in China, written by Guan et al., and published in the journal "New England Journal of Medicine" which received 11643 citations was received the next place in the list of highly cited articles in COVID-19 researches.

According to (Yu et al., 2020), more research papers are produced on clinical features and transmission of disease and viral genomes and disease transmission with the highest usage of keywords as "COVID-19", "novel coronavirus", "clinical features" and "epidemiology". Further, as the COVID-19 pandemic originated from Wuhan, China, findings published by the Chinese experts might have been considered as most important and helpful.

There are 73 research papers that have authors with Sri Lankan affiliations. Among them, 43 papers are with the first author with Sri Lankan affiliation. Among the papers which have first Sri Lankan first author, the highest citation (166) was obtained to the review paper "Enhancing immunity in viral infections, with special emphasis on COVID-19: A review" authored by Jayawardena et al. (2020), published in Diabetes and Metabolic Syndrome: Clinical Research and Reviews. The highly cited articles are mainly review articles with meta-analysis.

Most Impactful Authors

Even though the highest number of publications was reported by E.Mahase of UK (197) and G. Lacobucci of USA (147), the most impactful authors in terms of citations were mainly from China. There are nine authors with more than fifteen thousand citations. Among them Y. Liu, Y. Wang and H. Chen were the topmost impactful authors based on the citation per article (1673, 1071, 949 citations per article, respectively). H. Chen, Y. Liu, and Y. Wang were the author or co-authors for the topmost cited articles. Further, they received top places in having co-authorship too. In the Sri Lankan context, the most impactful authors in terms of citation were those who contributed to the highly cited article mentioned in the previous section. Among them, the highly cited author is Priyanka Ranasinghe (190 citations for four articles) from the University of Colombo.

Most Impactful Journals

In terms of the number of publications, the New England Journal of Medicine (42), Cell (39), and the Lancet (34) were the leading. However, in terms of average citation per article, the Lancet (1723) and New England Journal of Medicine (1243) were the top impactful journals. In this line, the journal Cell takes 14th rank. Among the Sri Lankan authors publication, Asia-Pacific Journal of Public Health has five publications but only two citations. Diabetes and metabolic syndrome: clinical research and reviews has four articles with 171 citations. The New England Journal of Medicine has only three articles with 178 citations. The New England Journal of Medicine is the most impactful journal among Sri Lankan authors in terms of average citations per article.

Most prolific and productive countries

According to the search results, the highest number of research articles had been published by the United States of America, followed by China and United Kingdom. However, according to the average citation per document, China was the leading country (with the 516 average citations per document), and it was followed by Germany, Canada, and so on, whereas the United States was eighth on the list.

Co-authorship pattern by country

The country-to-country link strength shows the number of publications co-authored for co-authorship study by two linked countries, whereas the cumulative strength of the connection indicates the total strength of a country's co-authorship connections with other countries. The analysis reveals that the United States was the country that had the largest association with 469 co-authorships link strength connected to 21 countries. The United Kingdom and Italy were next to the US with the total co-authorships link strength of 408 and 306, respectively.
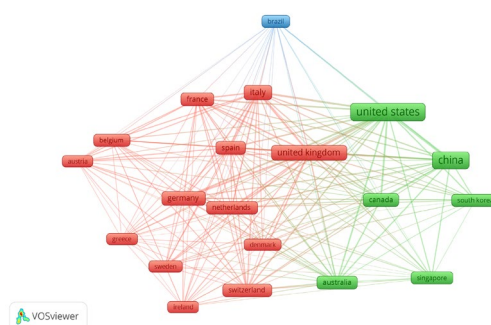
Figure 1. Co-authorship pattern by Countries

Among the publication contributed by Sri Lankan authors, they have collaborated with nineteen countries but no collaboration was observed with China. The Sri Lankan authors have highly collaborated with USA, UK and Australia.
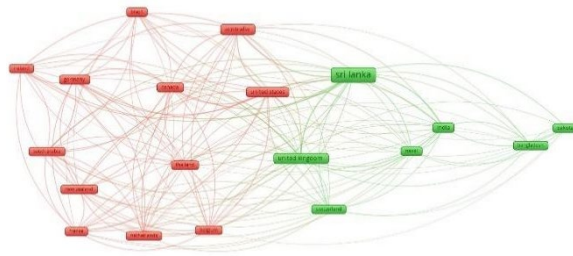
Figure 2. Co-authorship pattern of Sri Lanka

Conclusion and recommendation

Bibliometric evaluation of the research papers is essential to fill the knowledge gaps by conducting the research. In the global context, among the 60150 articles "Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China" written by the Chinese authors was the most cited article in COVID-19 research. Further, the Chinese authors were the topmost impactful authors based on the citation per article, and they have the highest co-authorship too. According to the average citation per document China was identified as the leading country. In the case of the number of publications produced, it retained second place. Hence the most outstanding contribution provided by China is visible. Further, United States was the country that had the most considerable co-authorships link strength and produced high number of publications. The Lancet and New England Journal of Medicine were the most impactful journals, In terms of average citation per article.

In the Sri Lankan context, "Enhancing immunity in viral infections with special emphasis on COVID-19: A review" was obtained the highest citation, and Priyanka Ranasinghe was the most impactful author. The Sri Lankan authors highly collaborated with the USA, UK and Australia. In Sri Lanka, review articles with meta-analysis were mainly produced, while globally, the researches were mainly produced on clinical features and transmission of disease and viral genomes and disease transmission.

As this bibliometric study utilised only SCOPUS databases to collect data, future studies are recommended to carry out with other databases such as Web of science, Google Scholar, EBSCO, and PubMed to collect more comprehensive data for bibliometric analysis to avoid bias.

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Public Relations in libraries: a case study based on the staff of public libraries in Kalutara district

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Abstract

Public relations are a very important tool that all libraries use to enhance their strong public image. The public relations of the library staff were discussed under study. The communication tools used by library staff to enhance public relations were focused. The survey method was used in the study. The purposive sampling technique was employed in the study. The population was the staff of public libraries in the Kaluthara District. The staff of five libraries was selected as a sample. The questionnaire data were evaluated with descriptive statistics such as a percentage. This study reveals that strong public relations were not available between library staff and users. The libraries do not use formal communication systems in the libraries. It is envisaged that regular training and education programmes for library staff and users conducted by the library may support this task.

Keywords: Library staff, Library users, Public library, Public relations, Social media

Introduction

Library public relations are a thoughtful, planned, and continued strength to establish and continue mutual acceptance between the library and the users. According to the encyclopedia (World Book, 2002), Public relations is an activity aiming at improving communication and understanding between an organization or individual and one or more groups known as the public. Public relations activities help to provide a coordinated effort to communicate a positive image of the library and promote the availability of the library's materials, programs, and services. People have long been able to acquire dependable information, discuss ideas, and cooperate at public libraries (Wade, 2012). Libraries must create frequent communication tools with their key stakeholders to foster an awareness of their duties (Nwezeh, 2010). Effective public relations may enhance the library's image and position in the community. Public relations efforts should be aimed at promoting the library as a whole by successfully conveying its goals and mission to the public (Alansari, 2013)

Research Problem

Libraries need to consider how they connect with their audiences. Mi and Nesta (2006) noted that part of the problem for libraries was a lack of public relations skills.

There is a general belief that libraries are underutilized, and it is thought that users lack awareness about the services available (Ameen, 2015). Hence, more obstacles are faced by the library when they organize the library programs. As a result, they are not done effectively and

efficiently.

Objectives of the Study

- To study the public relations of the library staff in the library.

- To identify the communication tools used by library staff to enhance public relations in the library.

Research methodology

The survey method was used in the study. The purposive sampling technique was employed in the study. This study mainly focused on questionnaires as data collection instruments and semi-structured interviews for validation of data collected through questionnaires. The population was public libraries in Kaluthara District. There were three categories of public libraries as follows:

Table 1. Study Sample

Categories of Library	Number of Libraries
1. Grade One	03
2. Grade Two	07
3. Grade Three	55

The libraries were selected with the following criteria:

- The library should be at least ten years old

- The library should have at least five full-time staff members.

A total of 05 libraries was selected as a sample. Grade one =2 and Grade two =3. They were situated in Horana, Kaluthara, and Panadura municipalities, as well as Mathugama Pradeshiya Sabha. According to the sampling technique, the instruments for the 69 questionnaires were distributed to five public libraries in the Kaluthara District. Both questionnaire instruments were distributed to the library staff and users to collect primary data. The interview technique was done face-to-face at the library.

Method of Data Analysis

The questionnaire data were evaluated with descriptive statistics such as percentage distribution, mean, and frequency counts in excel. The data were presented in users' charts, bar charts and pie charts, etc. The study's interview data were transcribed and organized into themes and sub-themes.

Results and Discussion

Data analysis shows that 23 (33%) library staff respondents and 46 (67%) users participated in the study. There were more user participants than library staff participants in the study sample. According to the library staff public relationships among library staff, the majority of library staff respondents, 86.96% (20), agreed that they contribute to the events organized by the libraries. Three (13.04%) respondents said that was good. The interview with the respondents confirmed that library staff were very willing to participate in the library activities that were assigned by the librarian. Library staff respondents were also asked to contribute to the work of other staff members. From the respondents, 95.65% (22) answered "Very Good" and 4.35% (1) answered, "Good". The results showed that 78.26% (18) respondents agreed that connection with the parent institution. Five respondents said "Good" to that fact. The interview with the respondents confirmed that some staff, preferring to work as a group and others working alone.

The majority, 82.61% (19) of the library staff respondents, said "Very Good" to the statement "connection with the users". This was followed by three respondents who said emphatically "Good" to that those who responded, 04.35 % (01) said they "do not know" about this. The number of respondents confirmed "Very Good" to the statement "connection with the user community" 91.30% (21) and those who said "Good" connection with the user communities 09.70% (02). The interview with the library staff respondents confirmed that "Very good contribution to the events organized by the libraries through the user community. Some users' behaviour was wrong. The interview with the user respondents confirmed that the library staff does not know me normally, and I do not know them profusely. They know my information needs are neutral and their contribution to finding the information is very satisfying.

This study shows majority 69.57% (16) of library staff respondents said "Very Good" to the statement "Public Relations between institute, association and community". Six (26.09%) respondents said that was good, 04.35 % (01) said they were "poor" the fact. The interview with the respondents confirmed that the connections with the National Library, book publishers, and library associations are good. Connections with the business community, the political community, other public libraries, and school libraries are usual.

The results of the communication tools to enhance public relations among library staff showed that 95.65% (22) of the respondents used that letter and suggestion box. Respondents used 91.30% (21) telephone/cell phone systems to develop the relations. The interviewees expressed their views as follows. "The library used mass communication – the internet, social activities– library user society activities, displaying activities – advertisements, posters, banners, and notes boards, inter-personal network–meetings, voice systems, telephone/cell phone systems, and email systems". The majority of staff respondents said that 52.17% (12) of the libraries do not

hold meetings once a month. The interview with the library staff respondents confirmed that the libraries have not scheduled regular meetings in the libraries.

The results of the communication tools to enhance public relations among users confirmed that 50% (23) of the respondents used that Notice Board. The above communication tools are used by the libraries to develop public relations. According to social media, Facebook 69.57% (16) and WhatsApp 26.09% (06) are used by the libraries. Users confirmed that 54.35% (25) of Facebook and WhatsApp are used regularly.

Conclusion

The results reveal that there are poor public relations among library staff and users. There is cross-fire among library staff and library staff between users in the libraries. As a result, libraries continue to face challenges when performing and communicating in library activities. The user communities support organizing the library activities. The libraries do not use formal communication systems in the libraries. Social media is used by the libraries for extended library activities and events. There were obstacles faced by the libraries when enhancing public relations.

Recommendations

The libraries organize training and education programs to enhance public relations and change staff attitudes. The libraries can create the post of Public Relations in the libraries. An experienced staff member should be allocated to the post responsible for performing public relations duties. The written public relations plan and developing library user society activities enhance public relations. The library should conduct meetings or discussion sessions once a month for the awareness of public relations. The public relations team should be created a process for formal activities in and out of the library to minimize the obstacles. This study recommends the library development of social media is very important to public relations. The library budget should be allocated the Public Relations activities and increase the usage of information technology to enhance public relations.

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Marketing Library resources. A case study of the library Australian college business and technology

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Abstract

The students use various sources of information in their tertiary education. they may find this information within the libraries or outside the libraries. But in tertiary education the students have to do a considerable amount of self- directed studies, find information for assignments. laboratory work, research projects, Assignments etc…therefore the private universities librarians conduct various training programs to support the students to find information in print and electronic media.

To promote the library resources and services, it is essential to market the library services and products. The findings of this research highlight that promotion of information resources increase the users in the library, the optimum use of library resources, the professionalism of library staff and the motivation of library staff.

The reading of the users has increased due to the value added activity conducted by the library. Activity interaction with the users and library staff was observed. Users were impressed with the library infrastructure.

The major observation in this study was that users were not willing to physically access the library resources physically. They always find information online. They don't have much time and they cannot go through the same book during the same period. Hence it is the duty of librarians to case and brand the library resources. ACBT have reached the conclusion that resources convert to Digital version. Library resources will gain the user's maximum utilization of the resources and increase the regular visit of users to the library for their information requirements.

Keywords: E resources, Library services, Marketing Library, User's requirements, Information needs.

Introduction

Marketing guru, Kotler (1999) pointed out that organizations such as Universities, libraries and charities need to market. This research paper highlights the marketing services undertaken by the library of Australian college business and technology (ACBT) to promote their resources for users initiated to obtain the maximum utilization of library resources. ACBT library has employed many innovative library services to satisfy the new generation of users. Therefore, ACBT library provides value- added, need based and user – oriented services and products to their users. The study exports the different library services to gather in the library and provide the services to users.

To promote the library resources and services it is essential to market the library services and products. The findings of this study highlights that promotion of information resources increases the users in the library. The optimum use of library resources, the professionalism of

library staff and the motivation of library staff.

The major observation of this study was that the users were not willing to access the library resources physically. They are willing to access the library via online and they need to fulfill their information needs through the e- resources. This study population was 100 of users. There are Foundation program students, Diploma, higher Diploma Student and lecturers. Hence it is the duty of the librarian to showcase and brand the library resources. ACBT has reached the conclusion that the skill to market library resources will gain the users maximum utilization of the resources and increase the regular visit of the users to the library for their information requirements.

Librarians must customize their services' own personal brand and user requirements for maintaining relations with their users. Libraries should use the digital media to allow their users to access knowledge anytime and anywhere. An efficient marketing plan is needed to understand the users' needs and requirements.

Problem Statement

This study is aimed to focus, find out the information gathering with e- resources and libraries market their products and services to reach each individual user and increase the utilization of library resources. Implementation of different value added activities is needed to market and connect users with the libraries and to increase utilization of the library resources.

Objectives

To identify the information gathering patterns of the new entrance

To examine the library usage of new entrance

To examine the identify the facilities in the library

Research methodology

The total population consisted of 100 users representing the Foundation, Diploma, and higher Diploma studies. The response rate was 95% 28 out of the 100 respondents 56 were females and 44 were boys' users. A structured questionnaire used to collect data. The questionnaire was distributed to the users before the semester exam. The results were entered into Microsoft Excel Package. Descriptive statistical Methods were used to analyze results.

The questionnaire was designed to raise awareness of the e resources, identify the facilities to fulfill information needs in the library, library usage during their class days and the usage of internet for their academic work as well as for entertainment.

Results and Discussion

In this study, it was discussed how to fulfill their information needs through e-resources. Different value added activities designed and executed by the library to promote the library services and to motivate the users to utilize the library resources.

The students mainly use information resources recommended by lecturers rather than selecting on their own. The students have used a lot of examinations and various kinds of information sources to prepare for the examinations. This shows that their main aim of information gathering is to face the examination successfully rather than gaining knowledge on their subjects. However, the students have used textbooks too. But some of them are not very familiar with the credibility of the hard copy. They are selecting digital versions in selecting information sources.

Most of the users have used their library, but only few have used the internet. Although they use the library they can't fulfill their information needs precisely. They have to gather more information through the internet.

Students do not seek the help of the library staff to find information in the library. They need to be encouraged to get the support from the library. Staff to find information in the library unlike during their tertiary education period. The internet usage is very high. The students have already used the internet for educational purposes during their tertiary education.

This library needs to develop an imaginative design of services, effective communication methods and proper feedback mechanism. This involves market research. Objectives and strategies to implement the plan. Users must be made aware of all the library services and the resources available. The promotion of the library services has increased the usage of the library resources and the value of the library and it has changed the perceptions of the library users.

Library staff plays a significant role in the identification of relevant resources and giving hands-on training to its users. ACBT library has always focused on fulfilling user requirements as and when they need any information. ACBT library is to conduct regular workshops, Seminars, orientation programs and other value added activities not only for the librarians but also for students as well as library support staff.

These activities are conducted for educational professionals as and when required. This is the main marketing strategy of the library and the institute.

Awareness of the e resources and if they are aware of Digital libraries how to become aware.

Majority of the users have used websites to raise awareness of digital resources. (80%) They have also used a considerable amount of private institute 70%. less than 40% users have used books, newspapers, and journals to acquire information for their information needs. Library

staff have supported them 50% to fulfill their needs.

The next question was to examine who recommended the information resources to the users.80.69% students have responded that the lectures recommended them.44.50% have mentioned that either classmates or him/ herself have selected the resources.40.09% have stated that either brothers/ sisters recommended them. only 18% have stated that they selected the resources as mentioned by the library staff.

Usage of Digital resources through internet

The students were asked whether they have used the internet. 98% users use the internet and e resources and internet. overall internet usage of ACBT users is high. most of the users use the internet for educational purposes.

Usage of the library

The users were asked whether they used libraries. Majority of the users 40% have used libraries. The next question was about the type of libraries they used. Hence the students mainly depend on the ACBT library to find information.

The students were questioned about the way of finding the books in the library. Majority of the users look for books by going through the bookshelves in the library. The usage of computerized catalogs is very low. The other method of finding books in the library is to get the help of lecturers and library staff.

Lack of usage of library users

The users of this study most of them were part time users. They cannot use the library when opening time. Majority of the users couldn't use them during the open time. In this case 40% students use the library. Others asked whether if they can use the library resources online and gather information through the electronic version it is better than using physically. The users were asked whether they have used the e resources, (98%) users will use the e resources.

Identify the facilities in the library

Most of the users have used this library (ACBT) in this study. But they mentioned the lack of facilities in the library. When they get free after the class they used to use the library. But they are always disappointed regarding these facilities.

Recommendation

Professional and skilled librarians should utilize the digital media to market their services and to develop groups of users of similar interests. It is needed to update them with each and every news of the library. Also the users should be informed about the library events and the new

addition to the library collection. Obtaining user feedback and immediate response to evaluate the library users and need to keep a complete list of users with their requirements. The requirements of the users are collected through feedback to use in future. Librarians must market their services not only to promote the utilization of resources, but also to boost the profession and the role they play in educating the users.

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Machine Readable Cataloguing Format (MARC 21) to Organize Indigenous Knowledge (IK) Sources for Sustainable Development of Sri Lanka

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Abstract

Today Indigenous or traditional knowledge is a critical factor for sustainable development. That knowledge can be defined as the practices maintained and developed by people, generally, it is utilized in rural areas, rural People have extended histories of interaction with the natural environment. But IK has long been ignored in the world. The main focus of this research was to develop a standard Machine Readable Catalogues (MARC) format to record, share and promote the usage of IK in Sri Lanka. This study will also formulate a field selection guide and maintain uniformity in bibliographic records of IK sources in library catalogs. The study employed an online survey method to collect data from stratified randomly selected Online Public Access Catalogues (OPACs) to examine the existing metadata structure of IK. The study Disclosed that IK is not well managed and Also self-developed methods have been used by some libraries. In this case, Library professionals have not been at the forefront in terms of organizing IK also identified. Researchers proposed MARC format contains metadata about other publication types such as palm-leaf, photos, films, videos, or audio cassettes, dramas, stories, songs containing folklore, and oral pieces that are not supported by the current library catalogues. Consequently, the proposed format will promote overlooked indigenous knowledge both by members and outsiders for sustainable development.

Keywords: *MARC 21, Indigenous Knowledge, Traditional Knowledge, OPAC, Sustainable Development, Sri Lanka*

Introduction

Indigenous knowledge (IK) is a popular word Nowadays and indigenous or traditional knowledge has become a critical factor for sustainable development. Sri Lanka possesses an enormous and exceptional amount of IK that has its roots in pre-historical times. It has been deciphered differently in different places but is generally Taken as a local or traditional knowledge that the Indigenes carried with them from the past through oral tradition. As the authors Rajasekaran, Martin, and Warren (1992) defined, "Indigenous knowledge (IK) is the systematic knowledge acquired by indigenous peoples through the accumulation of experience, informal experiments, and close understanding of the environment in a particular culture." According to Grenier (1998), IK is "unique, traditional and local knowledge existing within and developed around specific conditions of women and men indigenous to the particular geographic area". It is stated that "indigenous knowledge system is a cumulative body of knowledge and belief, handed down through generation by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment"

(Ranasingha,2008). Thus, as a Features of in the IK.

Indigenous Knowledge loses its power and validity when the particular socio-cultural context where it produced is changed

Indigenous Knowledge is not destructive

Indigenous Knowledge is mostly practical

Indigenous Knowledge is environmentally friendly

Indigenous Knowledge is more humane

Indigenous Knowledge is not based on consumerism and not profit-driven

Indigenous Knowledge is time tested

Indigenous Knowledge is not fully explored and more research needs to be done

Indigenous Knowledge can be defined as the practices that people maintained and developed, In generally utilized rural areas, who have extended histories of interaction(Interlinkage) with the natural environment. IK encompasses valuable information In the country's cultural, social, economic, and religious practices for using resources, rituals, and spirituality. But As time passes by IK has been ignored or neglected by mainstream western sciences. so it has directly affected sustainable development. Present professionals pointed out that contemporary knowledge is mainly generated based on traditional knowledge. For instance, Sri Lanka also has a traditional Ayurvedic system that has simple medical treatments that can be cured of any diseases using wild-crafted herbs and ingredients prepared using traditional methods to attract the foreign eye to our county. Nevertheless, the main obstacle of IK is often transferred orally to the next generations and seldom in any form of documentation. When a knowledgeable or old person dies, a whole knowledge disappears with them. Therefore, the special effort needed to be taken to record, understand, document, and disseminate IK for preservation, transfer or adoption, and adaptation elsewhere. However, this research is being done to develop a standard machine-readable catalog (MARC 21) for reporting and promoting IK usage in Sri Lanka. MARC is an acronym for Machine-Readable Catalogue or Cataloguing. It is not, however, a kind of catalogue nor a method of cataloguing but a system by which data elements within bibliographic records are uniquely labeled for computer handling. MARC is an implementation of the international standard "Information and documentation - Format for information exchange". (ISO 2709-1996)

Objectives

The main objectives of this study are to develop a standard Machine Readable Cataloguing (MARC 21) format to record, share and promote the usage of IK in Sri Lanka. This study will

also formulate a field selection guide and maintain uniformity in bibliographic records of IK sources in library catalogues.

Methodology

The study employed an online survey method to collect data from the stratified sampling method that used selected Online Public Access Catalogues (OPAC) with available IK sources to examine the existing metadata structure of IK. Accordingly, data was collected from five university libraries (established between 1924-1979), the Colombo National Museum Library (1877), and the National Library of Sri Lanka (1990). IK resources available in those libraries include palm leaves, photographs, films, videos or audio cassettes, plays, stories, and folklore and lyrics.

Results

The study revealed that IK is not well managed or recorded in the libraries in the sample. The self-developed methods have been used for some libraries. Library professionals have not been at the forefront in terms of organizing IK also identified. Researchers proposed that the MARC format contains metadata about other publication types such as palm-leaf, photos, films, videos, or audio cassettes, dramas, stories, and songs containing folklore and oral pieces that are not supported by current library catalogues remain. Consequently, the proposed format will promote overlooked indigenous knowledge both by members and outsiders for sustainable development.

Conclusion and recommendations

Through word of mouth and experiences, a considerable amount of IK is still shared down from generation to generation. So yet, there are no systematic efforts that have been taken in Sri Lanka to protect its Indigenous Knowledge. On the other hand, the country's recognized knowledge system is at the point of extinction. Most of the records of this expertise (palm leaf scrolls) piled in Buddhist temples around the world will be erased in the next few decades owing to ignorance. The preparation of bibliographies is inadequate to guarantee the survival of these IK. They should be copied, classified, indexed, and preserved right away. Therefore, this research seeks to promote and preserve indigenous knowledge that has been overlooked by members and outsiders for sustainable development through this proposed model.

Table 1 Field select table

Tag	Field name	Subfields	Example
040	Cataloging source - (NR)	$a –Original cataloging agency $c –Transcribing agency $d -- Modifying agency (R)	040 ## $a DLC $c DLC $d gwhs
082	Dewey Decimal Classification Number	$a - Classification number (R) $b - Item Number (NR) $m - Standard or optional designation (NR) $q - Assigning agency (NR) $2 - Edition Number [Edition of DDC Used]	082 $a388 $bWIC $222
100	100 Main entry -- Personal name - - (primary author) (NR; there can be only one main entry)	$a –Personal name $b -Numeration $c -- Titles and other words associated with a name (R) $q -- Fuller form of the name $d -- Dates associated with a name (generally, year of birth)	100 1# $a Gregory, Ruth W. $q (Ruth Wilhelme), $d 1910
110	Main Entry−Corporate Name	$a - Corporate name or jurisdiction name as entry element $b - Subordinate unit $c - Location of meeting $d - Date of meeting or treaty signing $e - Relator term	110$a United States. $bPresident (1981-1989: Reagan)
111	Main Entry-Meeting Name	$a - Meeting name or jurisdiction name as entry element $c - Location of meeting $d - Date of meeting $e - Subordinate unit $f - Date of a work $n - Number of part/section/meeting	111 $aSymposium on the Underground Disposal of Radioactive Wastes $d(1979) $cOtaniemi, Finland
130	Main entry -- Uniform title -- (NR)	$a -- Uniform title $p -- Name of part/section of a work (R) $l -- Language of a work $s -- Version $f -- Date of a work	130 0# $a Bible. $p O.T. $p Psalms.

245	245 Title Statement (NR)	$a-Title $b-Remainder of title (NR) $c-Statement of responsibility, etc. $f-Inclusive dates (NR) $g-Bulk dates (NR) $h - Medium (NR) $k-Form $n - Number of part/section of a work (R) $p - Name of part/section of a work (R) $s-Version(NR) $6-Linkage(NR) $8 - Field link and sequence number (R)	245 14 $a The DNA story : $b a documentary history of gene cloning / $c James D. Watson, John Tooze.
250	Edition statement (NR)	$a -- Edition statement	250 ## $a 6th ed.
260	Publication, distribution, etc. (Imprint) (R)	$a - Place of publication, distribution, etc. (R) $b - Name of publisher, distributor, etc. (R) $c - Date of publication, distribution, etc. (R)	260 ## $a New York : $b Chelsea House, $c 1986.
300	Physical description (R)	$a - Extent (R) $b - Other physical details (usually illustration information) $c -- Dimensions (cm.) (R) $e -- Accompanying material (for example, "teacher's guide" or "manual")	300 ## $a 139 p. : $b ill. ; $c 24 cm.
336	Content Type carrier	$a – Content type carrier	336 $a Two-Dimensional moving images
337	Media Type	$a – Media Type	337 $a Video
338	Carrier Type	$a – Carrier Type	338 $a Audio Roll
490	Series statement (No added entry is traced from field) (R)	$a -- Series statement (R) $v -- Volume number (R)	490 1# $a Colonial American craftsmen

500	General note (R)	$a -- General note (Used when no specialized note field has been defined for the information. Examples: Notes regarding the index; the source of the title; variations in title; descriptions of the nature, form, or scope of the item.)	500 ## $a Includes index.
505	Formatted contents note (R)	$a -- Formatted contents note	505 0# $a Pride and prejudice -- Emma
520	Summary, etc. note (R)	$a -- Summary, abstract, or annotation $b -- Expansion of summary note	520 ## $a This basic guide to parliamentary procedure tells how to conduct and participate in a meeting properly.
650	Subject added entry	$a -Topical term $v -Form subdivision (R) $x -General subdivision (R) $y -Chronological subdivision (R) $z -Geographic subdivision (R) $2 -Source of heading or term used with 2nd indicator of 7)	650 #0 $a Theater $z United States $v Biography $v Dictionaries.
700	Added entry -- Personal name	$a –Personalname $b -Numeration $c -- Titles and other words associated with a name (R) $q -Fuller form of name $d -Dates associated with a name (generally, year of birth) $e -Relator term (such as ill.) (R) $4 - Relator code (R)	700 1# $a Baldridge, Letitia.

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Usefulness' of Library Information Literacy programs designed for the undergraduates' reference to the Wayamba University of Sri Lanka

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Abstract

With Collaboration of all Wayamaba University academic librarians, study was designed which increased students' information research skills, their awareness of other sources of technical information, and their communication and team building skills. This study was divided in to two main categories. The First one was theoretical knowledge sharing to the newcomers; Second part was practically experiencing what they are listing from librarians. This program had several hands-on trainings for Searching (Catalogue, e- Journals, Literatures, e- Theses,) Teaching method was Presentations and Mind Mapping. Introducing library materials and familiarizing to library classification and circulation databases are important lessons. Students from Faculty of Agriculture and Plantation Management and Faculty of Livestock Fisheries and Nutrition were selected. A questionnaire was used to collect data from students. Before library information and literacy program Data Analysis shows that both faculties' newcomers 100% had a basic knowledge about library. Twenty-eight percent (28%) of newcomers have idea about the different sections. Only two percent (2%) of student know about reference materials and fifteen percent (15%) of newcomers know about library Classification. Almost 98% newcomers had no idea about university library and its servicers. After program feedback evaluation shows that 100% students had idea about what is university library and how it circulating services among readers. Ninety-nine percent (99%) have identified that their most favorite part is mind mapping. Ninety-seven percent (97%) have search online databases and complete their task given from library. Ninety-nine percent (99%) have complete reference source searching (searching definition, finding keyword, using encyclopedias, glossaries and dictionaries).

Keywords: Information Literacy, University Library, User Education

Introduction

Information has become so important for decision making in today's world. In the present world information is added as the fifth need. With the rapid growth of the information society the ability of graduates to be information literate has become critically important. Students who enroll in higher education institutes are referred to as newcomers or freshers of that particular university. There are several definitions for the word newcomers according to Webster dictionary "one recently arrived", according to Cambridge dictionary "someone who has recently arrived in a place or recently become involved in an activity". Lanka Education .com says that in 2020 there are 30,000 new students enrolled to Sri Lankan 15 national universities, within this amount approximately 300 – 350 students entered to Wayamba University Makandura Premises, there are two Faculties Namely Faculty of Agriculture and Plantation Management and Faculty of Livestock Fisheries and Nutrition awarding several degrees to

fulfill national policy.

With Collaboration of all Wayamaba University academic librarians, a project was designed which increased students' information research skills, their awareness of other sources of technical information, and their communication and team building skills. This project was divided into two main categories. The First one was theoretical knowledge sharing to the newcomers; Second part was practically experiencing what they are listening to from librarians. This program had several hands-on training   for Searching (Catalogue, e- JouDrnals, Literatures, e- Theses,) Teaching method was Presentations and Mind Mapping. Introducing library materials and familiarizing library classification and circulation databases are important lessons. Students from the Faculty of Agriculture and Plantation Management   and Faculty of Livestock Fisheries and Nutrition were selected. A questionnaire was used to collect data from students.

Objectives

Main objective of this study is to find out whether the library information literacy programs conducted by the library are absorbed by the newcomers of Wayamba University. In order to achieve the object, the following categories are formulated.

- To identify the primary knowledge about Libraries and Resources

- To identify the Satisfaction of information literacy program done by library staff

- To identify the barriers and lacks from the students

Methodology

Wayamba University library makandura premises completed a 4 days Library information literacy program with hands-on training and practical sessions. 361 newcomers participated in both faculties, Faculty of Agriculture and Plantation Management and Faculty of Livestock Fisheries and Nutrition.

A survey was conducted using a questionnaire to get the information on Usefulness of Library Information Literacy programs designed for the undergraduate's reference to the Wayamba University of Sri Lanka. Two questionnaires were distributed among the students. The first questionnaire consists of awareness of any other libraries on school days, awareness of information sources, internet using tools, information searching tools and preference to gather information from. The second part of the questionnaire consisted of questions to identify the primary knowledge about Libraries and Resources, satisfaction of information literacy program done by library staff; Questionnaires were distributed before and after the program to collect primary data. Observations for practical sessions were also conducted to verify the answers.

Collected data was tabulated and analyzed using scientific methods according to the objectives.

Result, discussions and Compare objectives with Results

At the end of the information literacy program their performances in product as well as process is assessed by questionnaire to collect primary data from students. Before starting the library information and literacy program, collected data Analysis shows that both faculties' newcomers 100% had a basic knowledge about the library. Twenty-eight percent (28%) of newcomers have ideas about the different sections. Only two percent (2%) of students know about reference materials and fifteen percent (15%) of newcomers know about library Classification. Almost 98% of newcomers had no idea about the university library and its services. After the program feedback evaluation shows that 100% of students had an idea about what university library is and how it is circulating services among readers. Ninety-nine (99%) of participants mention that they got primary knowledge about Libraries and Resources. Ninety-nine percent (99%) have identified that their most favorite part in this program is mind mapping. Ninety-seven percent (97%) have searched online databases and completed their tasks given during practical sessions. Ninety-nine percent (99%) have complete reference source searching (searching definition from textbook and encyclopedias, finding keyword, glossaries and dictionaries). Information literacy activity called Scavenger Hunt is a fun game to collect all information about the library randomly. Finally, all students are divided into several groups and each group has to complete a mind map using knowledge that they gathered from the information literacy program. Those are evidence to show that this program was the most effective, interesting and useful program to all newcomers of Wayamba University.

Conclusion and recommendations

It is important that libraries need to adopt changes happening due to ever changing technologies. In an academic library, librarians have many personal experiences with helping non-traditional students in all aspects of the library and analyzing how they benefit from understanding information literacy. They see non-traditional students struggling with general computer functionalities such as typing in a searchable web address to even making simple modifications to a Word document. On top of these occurrences, these students also need to be perceptive enough to search various library databases for information. It is clear how this would be a daunting task for someone that is not computer literate and how their frustrations would, at worst, lead to their ultimate withdrawal from school

The concept of information literacy is essential for student success and studying the concept will greatly benefit the field of education. Analyzing the usefulness of an information literacy program will lead to ideas being incorporated by other institutions seeking methods for

increasing their student retention rates. Colleges and universities will recognize that offering information literacy workshops and assignments will shape students into successful researchers (Rapchak et al., 2015)

As methods to improve the perceptions of students towards the library it is suggested to give more emphasis on introducing modern facilities and services to newcomers and also to make more attractive programs for them.

- Introducing pre-recorded video programs and virtual tours on sections of the library.

- Students are more active with fun game and practical session when introducing electronic resources (e-databases, e-journals)

- Highlighting attractive and sometimes unique features and servicers in our library during the library tours as part of the library information literacy program.

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A study on achieving sustainable libraries using Buddhist teaching: with special reference to selected SDGs

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Abstract

Libraries are at the heart of any education institution, and it works as a community center in society. IFLA involved, guided and facilitate to among their stakeholders to achieve the UN 2030 agenda. The libraries enable to access information and resources, giving people the opportunity to improve the quality of their life while teaching new skills and improve their competencies. (Kruszewska, 2019) This paper highlights the Buddhist teaching to build sustainable libraries and also fulfill new library development which means taking part of the sustainable development concept. The main objective of this study is to discuss the guidelines given by Buddhist literature to develop sustainable libraries. There are some guidelines according to the western practice to achieve sustainable libraries. This paper tries to find out Buddhist teaching to achieve sustainable development and use for those to create sustainable libraries. The important teaching was revealed that will be helpful to achieving sustainable libraries.

Keywords: *Libraries, Sustainable Development, Buddhist teaching, Buddhist literature, Sustainable libraries*

Introduction

The Library is a focal point of the society and also a community center. Its main role is communicating knowledge to each other's at every level. At present, all over the world people are discussing ways and means of achieving sustainable development. Development is a positive manner. According to the Brundtland commission report in 1987, Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (International Institute for Sustainable Development) Sustainable development has three conceptual pillars. Those pillars are economic sustainability, social sustainability and environmental sustainability. (Maddumage, 2008)

But without thinking on nature, energy, humans there are number of problems affected by people. The United Nations has introduced seventeen goals. Now a day's library personnel give their attention to the achieving sustainable libraries. In sri Lankan context early period of libraries beginning background with Buddhist temples. Green growth with environmental friendliness. In this regards Buddhist theories and practices well support for sustainable libraries. According to Sinhala culture there are some sustainable principles can be seen in Literature also.

Objectives

This study aims,

- To discuss factors in Buddhist literature to achieve sustainable libraries.

- To explain how to utilize and build libraries according to the buddha teaching.

Research problem

The present study will try to describe how to build sustainable libraries using Buddhist teaching. There are some guidelines introduced by western practice. Buddhist teaching has 2500 years of history and what are the teachings in Buddhist literature? Can we build sustainable libraries using this teaching?

Methodology

In this study based on descriptive methods. Mainly, Tripitaka books have been used for primary data. Secondary data were used in printed books, journals and internet resources. Based on Buddhist literature try to identify sustainable teaching related to the selected SDGs such as no poverty, quality education, good health and wellbeing, decent work and clean energy.

Discussion

There are some key features that can be identified in Buddhist literature. According to the sustainable development goals librarian could build sustainable libraries using Buddhist teaching such as many Suttas clearly explain and find out many examples. As human resource managers in libraries, librarians can fulfil staff members' happiness. If the staff worked happily it would be an effective and efficient service for users. Morality is core to the Buddhist world view and is evaluated by skillfulness. In the field of library and information science discuss the competencies of staff. It's a very important factor. According to Buddhism, sustainable doesn't mean sustainable development in the modern sense. Rather, it is the ensuring of the appropriate mental wellbeing. Cultivation of Buddhist meditation activities among library staff members for mental wellbeing. In Sri Lankan context, some libraries organized those activities for library staff members as well as other staff members. In the libraries, knowledge management is very important for accessing information. Classification introduced by Buddhist literature for access to Dhamma.

If the staff members in libraries practice Noble Eightfold Path also will help to develop sustainable libraries. The paticcasamuppada explains the view of the environment. Human made ecological disturbances. Buddhist teaching on non-harming and non-killing. Specially protecting biodiversity and avoiding harm. As a community center library could convey a good

message to society on how to adapt sustainable goal to our lives. The buddha paid his gratitude to the sacred bodhi tree and Vanaropa sutta in samyukta nikaya also well explained how to protect the environment. (Chandawimala Thero) Environment sustainability is a necessity for libraries. There is a strategy developed by librarian green libraries. Green libraries would help to save energy, reduce stress of users, save green environment etc. Kutadanta sutta in Digha nikaya and sigalovada sutta well explained decent work (goal no 8). It says how to assign duties according to the skills of the employee. This factor is also very important to the library's human resource management with a sustainable future. (Thi, Dhammahoso, & Piyabhani, 2019)

According to the Sumangalavilasani, Buddhist education explained four way of teaching. Those are Aththajjasaya, Parajjasaya, Attuppaththika, Pujjawasika (Sumangalawilasani, 1918)Librarians could follow the above steps and create quality and satisfied user service to their users. It can be used for understanding user behavior patterns and assisting them according to their information needs.

 The four principles of social conduct are the foundation for sustainable development. If each other's in libraries could follow principles such giving, pleasant language, engaging in meaningful, equality (Maddumage, 2008)

Conclusion

The study revealed that the many Buddhist teaching in literature can be used for achieving sustainable libraries. As Buddhist country those principals with us and needed to be practical. Its timely needed apply those teaching as some libraries already arrange such programme preaching dhamma, meditation programme, green library concept, etc.; The positive attitude towards achieving sustainable libraries using Buddhist teaching needed.

Recommendations

Libraries should arrange awareness programme for library staff to acquire knowledge Create awareness campaigns for library users to apply Buddhist teaching to build a suitable life.

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Scholarly Communication on Global Alzheimer's disease with Special Reference to Web of Science: A Scientometric Study

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Abstract

The main purpose of the study is to examine the authorship pattern and collaborative trend in the field of Alzheimer's disease literature in global level in the study period 2014-2018. A total of 38936 articles were published. maximum number of (32.86%) contributions are from the USA and it has been placed the first rank and the lowest number of publications were published from Australia with 4.36% among top ten countries. Out of 36749 multi authored publications high number of articles are of 24744 contributed by more than five authors and interestingly anonymous articles are of 466, only 1721 papers are independently produced by single authorship category, an average collaboration of author index, degree of collaboration and average collaborative coefficient are of authors are 4.36, 0.67 and 0.72. 6.73 is the Average Author Per Paper during the study period and 0.51 is the Average Productivity Per Author for the study period 2014 to 2018.

Keywords: *Scientometric, Alzheimer's disease, Authorship pattern, Collaborative Index, Degree of collaboration*

Introduction

Chellappandi (2018) says 'Scientometrics analyses the quantitative aspects of the production, dissemination and use of scientific information with the aim of achieving a better understanding of the mechanisms of scientific research as a social activity'.(Page No.6) Scientometric is one of the discipline that evaluates scientific publications and citations added to the papers to increase an understanding of the structure of science, the growth of science at the global level, the performance of a country in a particular domain, the performance of institutions, departments and divisions, and the scientific eminence of an individual scientist. It also helps in knowing the information-seeking behaviour of scientists and engineers by way of identifying where they publish and what they cite. (Sagar et al, 2009). According to Gaugler (2019) Alzheimer's disease is a brain related progressive disease, significantly the disease befits inferior with time. It thought to begin 20 years or more before exaggerated invisible signs arise in brain with inconsequential changes that are imperceptible to the person. Memory loss and language problems are the prime symptoms and only after years of brain changes do individuals know-how conspicuous signs of the disease. When symptoms are occurring then nerve cells (neurons) in parts of the brain involved in thinking, learning and memory (cerebral function) have been injured or shattered, which are tend to grow and start interfering with individuals' ability to perform everyday activities however individuals typically live with Alzheimer's

symptoms for years.

Medical scientists were engaged in laboratory settings by carry out experiments on virus, drugs, vaccine and so on related to any diseases. Instantaneously, they bring forth a substantial volume of scientific literature. Hence, a very systematic in-depth and comprehensive scientometric studies are required. For this purpose, the research studies on 'Alzheimer's disease research literature' provides an insight into the scholarly activities that were carried out on Alzheimer's disease in different parts of the world. Further, it may help to agencies of the world in particular for the revision of national policies to plan strategies to facilitate the control and eradication of the disease.

Objectives

- The major objectives of the present study are:

- To identify the nature of authorship pattern

- To ascertain the most productive country

- To find out Collaborative Index

- To compute the degree of collaboration

- To ascertain Collaborative Co-efficient

- To determine author productivity

Scope and methodology

The data was extracting from the database Web of Science, which is launched in 1997. Thomson Returns maintained it previously but now it is maintained by Clarivate Analytics. 'Alzheimer's disease' was the key word used for download the required data in the field of Alzheimer's disease research during the study period 2014 to 2018. Collected data were uploaded to MS-Excel spreadsheets and MS-Word. The outcomes were processed and analyzed to reach the objectives of the study and also tabulated for making interpretations as per the objectives of the study.

Results and discussion

Table 1: Year wise Authorship Pattern

Year	Anonymous	Single	Two	Three	Four	Five<	Total	Percentage (%)	Multi author publication
2014	285	482	683	791	762	4189	7192	18.47	6425
2015	160	379	691	767	831	4520	7348	18.87	6809
2016	21	426	687	771	939	4962	7806	20.05	7359
2017	0	269	712	815	975	5464	8235	21.15	7966
2018	0	165	700	937	944	5609	8355	21.46	8190
Total	**466**	**1721**	**3473**	**4081**	**4451**	**24744**	**38936**	**100**	**36749**

The table 1 displays year wise authorship pattern of the research productivity on Alzheimer's disease. It reveals the nature of association of authors. Anonymity describes situations where the authors identity is unknown. The term 'Anonymous' is used by the persons/authors to hide their identity from its readers. Atrticles get written by the author having no known name or identity or known source is called anonymous artilce. Some writers have argued that namelessness, though technically correct. The important idea here is that a person be non-identifiable, unreachable, or untrackable for a certain value, such as privacy, or liberty. In other cases, the author's name is intentionally kept secret reasons may vary from fear of persecution to protection of his or her reputation.

Out of 38936 articles, merely 1721 are solo-authored and repose of 3473 articles has been authored by double, 4081 are three and 4451 are of four authored. Obviously the highest 24744 articles have been authored by five and above authors and remarkably the 466 number of articles are of anonymous. It designates that 'Alzheimer's disease' research is highly collaborative.

Table 2: Top 10 County-wise distribution of publications

Sl No	Countries/Regions	Publications	Percentage	Rank
1	USA	12794	32.86	1
2	China	5960	15.31	2
3	England	3532	9.07	3
4	Germany	2813	7.23	4
5	Italy	2696	6.92	5
6	France	2080	5.34	6
7	Japan	1983	5.09	7
8	Canada	1962	5.04	8
9	Spain	1926	4.95	9
10	Australia	1803	4.63	10

The distribution of publications contributed by country wise, clearly states that the maximum number of (32.86%) contributions are from the USA and it has been placed the first rank, followed by 15.31% of the publications contributed by China and it has been positioned the second rank. 9.07% of contributions came from the England and got placed third and the lowest number of publications were published from Australia with 4.36% among top ten countries. A

significant observation of the study is that USA dominated other countries.

Table 3: Collaborative Index

Year	Total Publications	Total Authors	Mono	Two	Three	Four	Five<	Multi Author Publication	CI
2014	7192	43161	482	683	791	762	4189	6425	4.20
2015	7348	48502	379	691	767	831	4520	6809	4.30
2016	7806	58779	426	687	771	939	4962	7359	4.43
2017	8235	52648	269	712	815	975	5464	7966	4.44
2018	8355	58994	165	700	937	944	5609	8190	4.42
Total	38936	262084	1721	3473	4081	4451	24744	36749	4.36

Table 3 find out that the Collaborative Index in other words collaboration of authors on an articles published in the field of 'Alzheimer's disease' from 2014-2018 and Collaborative Index computed by using the following formula derived by Lawani (1980).

$$CI = \frac{\Sigma A \, j=1jfi}{N}$$

Where,

j = the number of author(s), fj = the number of j-authored research papers published in a discipline during a certain period of time, N= the total number of research papers published in a discipline during a certain period of time and K= the greatest number of collaborated authors per paper in a discipline.

4.36 is the average collaboration of author index. Highest collaborative index noticed in the year 2017 is of 4.44 and in 2014 the lowest collaborative index is recorded that is 4.20.

Table 4: Degree of Collaboration

Year	Total Publications	Total Authors	Mono	Two	Three	Four	Five<	Multi Author Publication	DC
2014	7192	43161	482	683	791	762	4189	6425	0.59
2015	7348	48502	379	691	767	831	4520	6809	0.65
2016	7806	58779	426	687	771	939	4962	7359	0.62
2017	8235	52648	269	712	815	975	5464	7966	0.73
2018	8355	58994	165	700	937	944	5609	8190	0.81
Total	38936	262084	1721	3473	4081	4451	24744	36749	0.67

The degree of collaboration designated in Table 4 and it is assessed by using the following formula derivate by Subramanyam (1983).

$$\text{Degree of Collaboration (DC)} = \frac{Nm}{Nm+Ns}$$

Where,

Nm = No. of Multi-Author Publication, Ns = No. of Single Author.

Highest degree of collaboration 0.81 is recorded in the year 2018. It is seen that 0.59. is the

lowest degree of collaboration noted in the beginning year (2014)? 0.67 is the average degree of collaboration during the study period 2014-2018.

Table 5: Collaboration Coefficient

Year	Total Publications	Total Authors	Anonymous	Mono	Two	Three	Four	Five<	CC
2014	7192	43161	285	482	683	791	762	4189	0.69
2015	7348	48502	160	379	691	767	831	4520	0.71
2016	7806	58779	21	426	687	771	939	4962	0.71
2017	8235	52648	0	269	712	815	975	5464	0.73
2018	8355	58994	0	165	700	937	944	5609	0.74
Total	**38936**	**262084**	**466**	**1721**	**3473**	**4081**	**4451**	**24744**	**0.72**

Collaboration Coefficient interpreted in table 5 by using the following formula and it can be definite by Ajiferuke and others (1988).

$$CC = 1 - \sum_{J=1}^{J=K} \left(\frac{1}{j}\right) Fj/N$$

Where,

j= authorship, Fj= number of j- authored research papers, N= the total number of research papers, k= the greatest number of authors per paper

0.72 is the average collaborative coefficient of authors. The uppermost coefficient of the author is of 0.74 and it is recorded in the 2018 and the lowest coefficient is of 0.69 logged in the year 2014.

Table 6: Author Productivity (AAPP AND APPA)

Year	Total Publications	Total Authors	AAPP	APPA
2014	7192	43161	6.00	0.17
2015	7348	48502	6.60	0.15
2016	7806	58779	7.53	0.13
2017	8235	52648	6.39	0.16
2018	8355	58994	7.06	0.14
Total	**38936**	**262084**	**6.73**	**0.15**

Average Author Per Paper and Average Productivity Per Author are calculated and presented in the table 6 as per the following formulas:

Average author per paper = No. of authors / No. of papers

Productivity per author = No. of Papers/No. of authors

According to the above table uppermost AAPP is recorded in the year 2016 is of 7.53 and APPA in the year 2014 is of 0.17. Average number of Authors Per Paper and Average Productivity Per Author for 38936 are of 6.73 and 0.51 in the study period of five years (2014-2018).

Findings and conclusion

The Scholarly Communication on Global Alzheimer's disease literature during the study period

of five years (2014 to 2018), a total of 38936 publications was published, in that USA dominated other countries. The highest 24744 articles have been authored by five and above authors and remarkably the 466 number of articles are of anonymous. Highest collaborative index noticed in the year 2017 is of 4.44 and in 2014 the lowest collaborative index is recorded that is 4.20. Highest degree of collaboration 0.81 is recorded in the year 2018. It is seen that 0.59. is the lowest degree of collaboration noted in the beginning year (2014). Collaboration Coefficient had an average value of 0.72 in the year 2014-2018. Average number of Authors Per Paper and Average Productivity Per Author for 38936 articles are of 6.73 and 0.51 in the study period of five years (2014-2018).

In the perspective of research performance estimation evaluation of the quality of scientific literature is becoming increasing its significance. The quantitative study of research output in a particular field or discipline is a good indicator of visualization of research literature and helps to recognize the team scope with which authors' collaboration. Bibliographic databases are evocative sources of publication activity in any field of knowledge. Scientometric studies give some idea about the bearing of research, understand the drawbacks and present trends. The studies like this can be extremely useful for academicians, emerging scientists, administrators and policy makers, professional bodies that grant awards and prizes etc.

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A critical study of web page Analysis of IIT and IIM Libraries: A webometric Analysis

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Abstract

In today's environment information communication technology or digital aspects play a vital role in our society. In India, for the higher education for science and engineering including management study, IIT and IIM both are important or main institutes for higher education. IIT institute for science and technology whereas IIM for Management. The study covers the design and content of Webometrics, identifies the form of publications most frequently used and percentage of different forms and types of publications. Data analysis of the citation in collection and management of web sources in the library Journal and proceedings also relevant for the library. Total 50 review papers have been used for the analyses for the data collection from 2008 to 2019, total 12 years' data gathered for the study. The present study analysis 50 citation. The result identified factors that affect the transmission and use of information or have proposed strategies for increasing information flow and utilization.

Keywords: Web Content, Webometric, Web page, Web resources, Citation analysis

Introduction

Emergence of the World Wide Web has brought rudimentary changes in society. The Internet along with ICT has instrumented the paradigm shift from industrial age to network age. Burke (2006, p. 149) explained that a library website is a website that provides a library "with a space to share its services and to tell its story to the community it serves". A library without a website is missing the prospect "for marketing its services and this usually affects the patrons negatively in terms of finding the information they need" (p. 150). Adeyinka Tella, Oyegunle John Oladapo (2106), Nowadays, Websites are predominantly used as a tool by different persons, institutes, governments and corporate bodies to provide information and broadcast their products and services while displaying their goals and missions. In essence, websites are used to ascertain businesses and corporations in the general world. The websites help organizations in the creation, processing, sharing and use of information in a digital appearance and they also help in speedy information transmission across the globe. With the help of internet services, libraries can offer a wider range of creative services through their website.

Objectives

- To identify the form of publications most frequently used

- To study the percentage of different forms and types of publications

- To find out most productive Journals

- To find out most productive Author

- To study different web resources frequently

Methodology

Citation analysis is a method which is most suitable for the librarian to make a wise selection in to the library. The Present study analysis 50 Citation. All these citations were noted down on reference card in APA style, such as Journal, conference proceeding, websites, reports etc. All data has been collected, analyses and interpreted were drawn according to tables.

Findings

From the analysis of 50 citations apprehended from different source. The following finding has been done.

This study confirms the impermanence of Journals one of the most compelling result of this study is that Journals are relatively more popular in proceedings source of information for Library and information science professionals.

Journal of Desidoc Journal of library and information technology 8 (16.66%) has the highest ranked in journal cited rank list. The journal of library and information science 6(12.5%) have the highest second place in the cited journal list. Third rank have the Annals of library and information studies 2(4.16%), international conference caliber with 12.5% are the most popular for the professional. The professionals use these Journals and conference proceedings. This data has been shows these Journals and conference are more popular and have the highest rank among the library professionals.

Among the different citation literature Journals followed by conference 40(80%) and 6 (12%) are more popular among scholars. This study shows that website/weblinks also most popular among researcher.

It has been observed that there is Indian Institute Libraries evaluation (24%) and user awareness (20%) are more popular among professionals and scholars.

Two author paper (62.50%) contribute highest followed by single and more than three authors.

Manoj Kumar Verma (8), Krishna Devi (2), Nitesh Kumar Verma (3), Daulat Jotwani (3), Javed Khan (2), Harish Chandra (2). This study shows that these authors are the highest rank in author List. Manoj Kumar Verma has the highest Rank in the field of LIS. He has done the written work almost 8 times which is the highest position in the cited author (single) List.

The authors and researcher of Library and Information Science depend heavily of Journal, web sources and Conference proceeding also.

Conclusion

The present study describes study of web page analysis of IIT and IIM Libraries has been examined. this study identified factors that affect the transmission and use of information or have proposed strategies for increasing information flow and utilization. User studies, user awareness, one of the effective ways of conducting and usage of information and information sources.

One of the effective ways of conducting user awareness, Indian institute of technology and institute of management library evaluation, researcher awareness regarding Journal, weblink, web resources etc. Some of the criteria for observation of information. These areas of research have made it independent sub domain of library and information studies.

The study helps the citation in collection and management of web sources in the library. Journal and proceeding also relevant for the library scholars are now more interested in tender terms of use of reference.

Re-engineering acadenic libraries in a techno - savvy environment: an overview

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Abstract

The present study deals with Re-Engineering Academic Libraries during a Techno - Savvy Environment: An Overview. The academic libraries motivate the upper education. The upper education needs of developing the knowledge and Communication Technology related to the library resources and services are very essential in the 21st Era. The penetrations of ICTs have reengineered the process of the tutorial libraries to enable and achieve the high level. The library professionals need to focus on reengineering the tutorial libraries through the usage of the Techno-savvy environment of incoming years.

Keywords: Techno-savvy, Re-engineering, Academic Library, ICT and Web based Library Services

Introduction

The advent of hybrid libraries proliferated in which digital resources have recently played an important role in academic library activities. The information access was easily and speedily connecting an internet and digital technologies required for today's environment. Required huge amounts of expenditure for the academic libraries, and developed how to use technology effectively. The entire library professionals should be developing the techno savvy related skills developed in the ICT Era of Re-engineering.

Academic libraries

Academic libraries include school, college, university and research libraries. Above all the categories need study and research programmes. It helps conserve and disseminate knowledge of the academic community.

Information and Communication Technology

Information and communication technology (ICT) is defined as the combination of informatics technology with other, related technologies, specifically communication technology. ICT refers to technologies that provide access to information through telecommunications. This includes the Internet, wireless networks, cell phones, and other communication mediums. ICT must play an important role, perhaps even more than in other subjects, which assumes that the use of computer or virtual platforms is "natural" and inherent for education.

Library nomenclature

The Dr.S.R. Ranganathan states the fifth law of library science defined as "Library as a Growing Organism". The figure.1 explained the library nomenclature.

- Traditional Library

- Library Automation

- Digital Library

- Electronic Library

- Virtual Library

- Hybrid Library

Impact of Information Technology (IT) on Academic Library Functions

The science and Technology motivates in the 21st century in the Information Age. The technology has fast advancement in space communication techniques, the new information and the advanced knowledge are spreading worldwide and penetrating into every part of the world. The society and country required the knowledge society to access information and succeed in using technology to demonstrate their educational goals, academic activities and excellent training of the libraries.

Re - engineering

Its usage in the library means, to set up the library, its goals, and mission of redesigning the library processing and applied to new technology, the benefit of library users. IT helps to improve performance and maximum number of users' satisfaction, utilising the library resources, reducing cost and easily, quickly accessing the information.

Definition of Re- engineering

'The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed'. (Hamer and Champy, 1993).

Balasubramanian (2006) defined as to communication states that the term BSR indicates the dramatic change which is connected to the restoration of various organizational structures, applied style of management, managing of human resources and the usage of IT to develop the excellence and qualitative performance.

Techno-savvy Definition

According to Cambridge Dictionary says the "Knowing a lot about modern technology, especially computers"

According to Oxford Lexico defined as "Well informed about or proficient in the use of modern technology and especially computers".

21st centuries of the Re-Engineering usage of the Techno-savvy in Academic Libraries

The following facilities are using the libraries are as below:

Web based services

A digital Library service manages and develops electronic services, the library websites and library staff. According to White (2001), it can be defined broadly as 'an information access service in which users ask questions via electronic means e.g., email or web forms'. It's using OPAC, Gateways, Portals, Online Databases and Subject Directories.

New Web based Library services

Virtual Library Tours - It's also using new technologies such as QuickTime movies of the library related all information of the main campus

Ask –A –Librarian- The services are Internet-based question and answer services that connect users with individuals   of the related subject knowledge and search skills.

Real Time Service – The new method of digital reference service that a library displays in more now is live reference.

Bulletin Board Service – A usage of electronic communications forum that hosts posted messages and articles connected to a common subject

Web-based User Education - Web guides and teaching tools are found everywhere on the Web because they are easily updated through digital literacy.

Web Forum –Creating library website has some web forms related to posting the suggestion and library related queries are posted and using Interlibrary Loan, online reservation form and user survey etc.

Development of Institutional Repositories - All the Institution details of the information created by the faculty members and students can be collected and preserved in the details stored in the Institutional Repositories.

Wi-Fi facility - Improve the Wi-Fi facility is a technology for easily and quickly access the relevant information for library users carrying laptop, tablet, notebooks and smartphone etc.

Library Professionals Required Skills

Information and communications technology (ICT) skills Today with the advent of ICTs based library services are required the skills for library professionals for the development of library routine activities of Library Automation, Implementation new technologies like Barcode, RFID and Smart technologies.

Usage of Social Media Sites

Information transferred with many social networking sites with Facebook, Linked In, Twitter and Google Blogger instagram etc. Quickly spread the information of library related activities to motivate the users.

To develop the collection development related to types of resources. To motivate the library services using the new methods of using related technology To require Human Resource Management skills for Recruitment, selection, skilled Staff and program organisation etc. To save the time for important reason of the Reengineering plan and Implementation of ICT Based Library services is very important.

Conclusion

In recent years the growth and development of data and Communication Technology features a lot of changes within the academic libraries. The change is important, and therefore the libraries aren't limited to providing services. The constraints for expenditure of the financial problems are raised and allotted some amounts for spending the library development in future and saving the space and time for library users. In coming years able to upgrade libraries with improve the advance technologies applied to modernization library activities.

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https://egyankosh.ac.in/bitstream/123456789/11272/1/Unit-1.pdf Concept of ICT Meaning & Definition ICT is technology that ...https://www.hzu.edu.in › csit › IV.1_information

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Online Teaching Experiences in Higher Education during the COVID-19 pandemic: a case study from the Department of Library and Information Science, University of Kelaniya

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Abstract

Due to the COVID-19 pandemic, online education became a powerful platform in education globally. This situation is directly affected by the university system in Sri Lanka. As a result, teaching and learning methods converted into the online mode in the University of Kelaniya. This case study was objective to find out the Online Teaching Experiences in Higher Education during the COVID-19 pandemic concerning the Department of Library and Information Science, University of Kelaniya. Accordingly, the results were discussed under the training, teaching, assessment, and difficulties.

Keywords: Online Teaching Experiences, Higher Education, COVID-19 pandemic, Department of Library and Information Science, Sri Lanka.

Introduction

Due to the coronavirus disease (COVID-19) pandemic, the global education landscape converted to a distance learning mode (United Nations. 2020). During this phase, the Sri Lankan government ordered to close all educational institutions from 12 march 2020, with 15 state universities and about 40 other state and nonstate tertiary education institutions (Hayashi et al., 2020). At that moment, the Sri Lankan tertiary education institutions converted their mode of teaching and learning into Online. According to the university survey, nearly 90% of students accessed online education (Hayashi et al., 2020) under this situation. It is observed that the highest student ratio engaged with online education. As a result, fully online education was established at the University of Kelaniya between the years 2019 to 2021.

Background

The Department of Library and Information Science (DLIS) was established in 1973 as one of the professional subjects under the faculty of Social Sciences, University of Kelaniya, Sri Lanka. The DLIS has 12 permanent academic staff members and three temporary assistant lectures for undergraduate, postgraduate, and diploma programs up to 2021.

The majority of the teaching method for the above students before COVID-19 was based on traditional face-to-face lectures in the classroom; however, later on, in 2016, the university introduced the blended teaching methods even though it was hard to find out the engagement of all DLISC members, except a few. At this time, the faculty of social sciences provided staff

training for Computer-Assisted Learning (CAL) Management System.

However, in 2019, the world identified corona viral disease as a global pandemic, and the University of Kelaniya also closed for students and staff. Then as a solution, CAL became the most convenient lecturing platform at the University.

All the members successfully conducted the lectures and online exams via the Learning Management System called *e-Kelaniya.* As one of the DLIS teaching staff members, this paper is excepting to share Online Teaching Experiences in Higher Education during the COVID-19 pandemic based on a case study from the Department of Library and Information Science, University of Kelaniya.

Objectives

The main objective of this study was to share personal experiences on online teaching with particular reference to DLIS undergraduates. In addition, some difficulties faced by the students and researcher also found out.

Methodology

LEARN (Lanka Education and Research Network), as a specialised Internet Service Provider (ISP), was used for a zoom login. Moreover, the Learning Management System (LMS), e-Kelaniya, was used to conduct lectures. DLIS Bachelor of Arts honours degree undergraduates was selected as a sample for this case study. The researcher closely observed the first semester of 2019/2020 for this study under the training, teaching, assessments, and difficulties faced. Participatory monitoring was used to collect relevant information. And other staff member's experiences were also obtained through the interviews.

Results

The results were discussed in the following sections. Namely, teaching, assessment and difficulties faced.

Training

With the rapid switch to online education being promptly spread all around the country due to the COVID-19 pandemic, the DLIS teaching staff also adhered to online teaching. Before the COVID-19 pandemic, the DLIS members had experiences with blended teaching methods. However, sticking to online education happened within the COVID-19 period for the first time.

To overcome the knowledge gap in Online Teaching, the social science faculty provided training to the faculty staff during 2020. As I observed, Digital Teaching qualified DLIS members, namely senior lecturer Dr (Mrs) Namali Suraweera and her subordinator, senior

lecturer Chamara Kuruppuarcahchi voluntarily conducted the training workshop series for all the members of the Social Sciences Faculty regarding online teaching to fill the gap. DLIS is one of the departments that participated with the other departments to train in 2020.

Teaching

At the beginning of 2019, pre-recorded lectures were uploaded to the Computer-Aided Learning (CAL) system by DLIS staff. However, later in 2020, undergraduates joined the online lectures according to the given timetable.

Different media such as *PowerPoint presentations, websites, videos, text, audio, pictures* and *diagrams* were used when delivering the lectures. As a result, there were great opportunities to explain theories connected to the websites related to the subject matter. i.e. when lectures conducting for the *LISC 31474 Internet and Virtual Resources* paper, the researcher shared the World Wide Web with students to teach the concepts via *videos* and *full-text research*. Meanwhile, the university's main library granted us to log in for e-resources; these were actively used during the lessons.

Assessment

According to the relevant exam papers, assessments were also given. For these, *video presentations, debates, quizzes and discussion forums* were also used. i.e. Under the *LISC 41423 Digital Libraries, Software, Organization and Maintenance* paper, conducted a *debate* under the topic of "*Digital libraries are more important than paper-based libraries*" as an assignment. The performance of the students regarding this was at a standard level. Students profoundly used an online platform, and the department's teaching staff was an eyewitness to that. Further, *Kahoot* free game-based learning platform was also associated with measuring students' knowledge.

Difficulties

Several difficulties were observed and verified after discussing with students. Some students were affected by an Internet connection. As a result, they could not attend lectures regularly and had distractions performing online. Therefore, few students have gone through the recordings except participating in online lectures. It was observed that most of the students stayed at the lectures without switching on their cameras. Therefore, it was hard to observe their behaviours. Moreover, mics were unmuted without knowing them sometimes. Consequently, background distractions occurred when students presented their presentations.

CAL breakdown was happened on the researcher's side from time to time. Moreover, sometimes it could not host the lecturers due to network traffic and internet connection

breakdowns.

Discussion/Conclusion

DLIS Lecturers and Students were more familiar with the *eKelaniya* Learning Management System. It can be login via https://ekel.kln.ac.lk. DLIS is successfully conducting online lectures as usual for BA honours degree students. For this, DLIS staff have received a faculty training programme. DLIS lecturers use *PowerPoint presentations, websites, video clips, text, audio clips, pictures*, and *diagrams* as modes of delivering online lectures. Relevant assignments are taken via the Learning Management System. Internet connection issue is identified as a common issue for lecturers and students.

Recommendations

As an Asian country, Sri Lanka is also moving through online education due to the COVID-19 world pandemic. To develop and overcome the existing challenges in online education in Sri Lanka, it is necessary to develop infrastructure facilities and implement the National Policy through the relevant body.

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Digital library with multi access approach of periodicals with intellighent system with non-duplication precdiction

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Abstract

Imagine a library for the future, an inspiration an opportunity a place of linking us together to the community of the world, a hub of lifelong learning. A knowledge center providing a diverse set of multimedia materials like digital paper, video, audio and human books. A portal with the most number of periodicals available anywhere anytime with 24/7 check-out and id return. Meeting the needs of a diverse society the elderly children youth's immigrants. In the upcoming technical era authors' publications are imposed initially on the online namely with the terms of EISSN so we need to digitize a worldwide portal for the old treasure articles from the each and every library. For that, we can use the library technicians, and also as a fundraiser, we can allow the digital advertisements in our proposed portals. Once the books get digitized we can offer the portal jobs like animating a book for kids and differently-abled society, sounds useful to both the user and creator with the fund. When this process gets implemented then a single most demanded book can be quoted under the share study module to save time. As privacy and digital security, without the permission of the portal - user can't able to take print or screenshot of an article. This is a huge step when we see it as a whole, but a single torchlight doesn't show the whole forest once, but it makes the next step to be safe. Like that, we are in a pandemic situation and hope it ends for a while but if it comes again we need to aware and be prepared to gain our knowledge from our house using this portal. Take a single step then our future will be in our hands with swiping fingers.

Keywords: Digitization, Future Tech Library, Library Management, Portable Books, Share Study

Introduction

As of the current situation and the future prediction of the upcoming era's people, students and research scholars are seeking to get their brains trained and educated with the motive to lean at where ever they like to spend their time. As there are some restrictions with the library timings in the current situation and the covid precautions one cannot full-fledged to touch the books handled by the third person before taking the best sanitizer. Thus to avoid this difficulties research scholars and the specialist in the field work together to bring back the library in an efficient manner to overcome the obstacles even in the future. Sometimes readers felt difficult at times to find the meanings of those well established and polished foreign language books and they struggle to find the meaning of the word and also due to the incomplete meaning their reading gets diverted and they can't able to complete the book as per their wish suggested by Napoleon (2019).

People, Authors and investors of the content creation and book writing are getting their minds

to be more optimized and easy accessible they are preferring instead of the huge printing cost and maintaining the resource and safeguarding the books and periodicals as safe as possible is not that much easy to the maintainers team. As new safety measures are the much more complicated and creates a fear towards going out and touching the books. In future it may be still in an increased rate. So it's better to take necessary steps as soon as possible to make the library an efficient one to help the scholars and students with readers to make well use of the library in an efficient way using our proposed method. Receiving library manipulators to really shadow novel care events was also quoted as a trouble, and many review defendants supposed they remained astonished that additional persons stood not succeeding rules said by Napoleon (2021). Though maximum libraries are not necessitating customers to attire masks, they are relocation signage requesting them to do so as a politeness, and approximately are contribution throwaway masks in their entrances. Some of the chief doubts are library labors articulated is that when they resurrect their entrances they resolve have to contract with annoyed customers who aren't blissful with the new-fangled instructions. Fascinatingly, though numerous review defendants articulated this anxiety, insufficient who had previously unlocked their entrances supposed they needed knowledgeable customer's existence disobedient or argumentative over new-fangled strategies and actions noted in M. J. Mendel, (2014).

Objectives & methodology

Librarian's effort is so tough to produce, indorse, and perform programming for all eternities, and it displays, with community presence at public library agendas successful up time afterwards a year. Nevertheless, when over, COVID-19 has terrified librarians for a twist by eradicating the aptitude to inducement persons hooked on the public library through fun and enlightening encoding. It consumes also disturbed their aptitude to run in-person seasonal interpretation agendas.

So to make the library anytime and anywhere available with the motive to the job seeking also we proposed the model to help the readers to check-in and out anytime using the digital library. And once the digitation is completed from that animation of small story books gets created and this goes viral about the book and wallet can generated using this model.
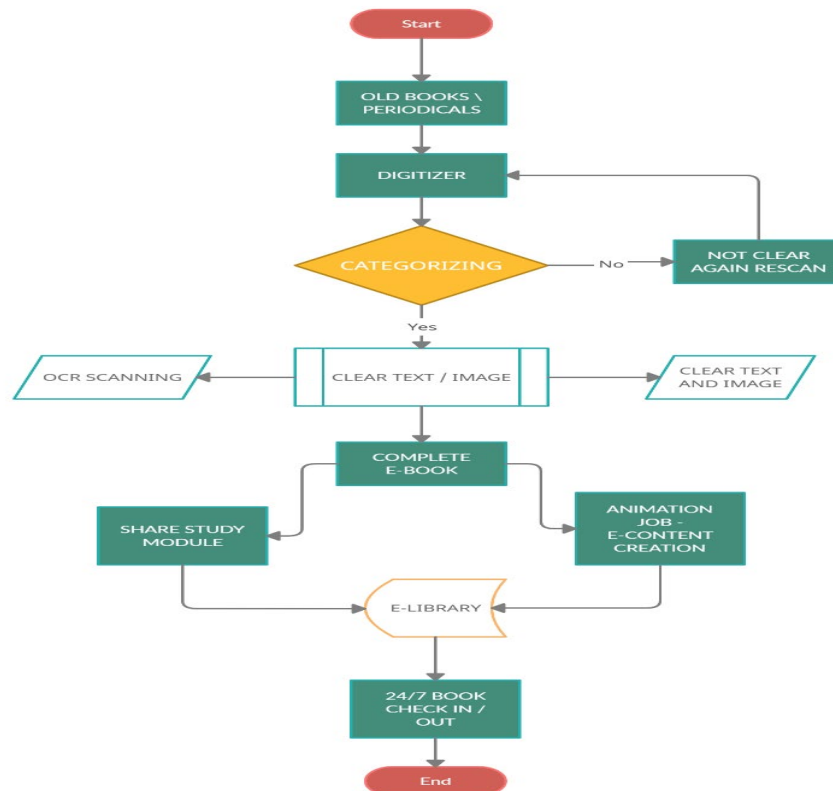
Figure 6

Conclusion

Though, this is unique zone wherever librarians take remained bright to actually gross deed. Smooth however about had to aspect their worries of existence on camera, acquire how to use new-fangled tech apparatus, and generate virtual seasonal reading agendas from score, they design to the instance. Numerous new-fangled computer-generated agendas were instinctive out of communal distancing guidelines, counting story times, and fashioning, paperback talks, time to retire stories, picture lessons, manuscript clubs, connected trivia, and more. Librarians similarly originate habits to engage customers in their seasonal understanding agendas with computer-generated encoding and connected pursuing tackles.

Some study defendant summed up the upcoming of librarianship: "We are adjustable and resolve overwhelmed the difficulties fast of us with arrogance and obligation." And it's right; now supplementary than forever, libraries are given that vital facilities. Local and national broadcasting are disbursing more consideration to this dangerous exertion, and libraries are repetition their out-of-date broadcasting and communal broadcasting hard work to guarantee their achievement floors are caught and their position duly well-known. This determination merely helps to increase their worth in the senses of their communal as they aspect onward to the daytime they container comfortable a stable watercourse of customers back concluded their entrances.

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Difficulties faced by differently-abled students while using the University library – in association with the library of the University of Kelaniya

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Abstract

University libraries have a special place in teaching, learning and research activities. The university library should provide maximum support to the users to fulfil their educational needs and special methods should be followed for differently-abled students to use the library. The research problem of this research is the lack of facilities of the university library required by differently-abled university students and its main objective is to explore the difficulties encountered in the use of the university library. Other objectives include studying the use of libraries by differently-abled students in the university, studying the specialised services and facilities and the further exploration of the hardware and software they require. Because of corona pandemic the research is based on the case study methodology and the data were collected from 40 male and female visually impaired, hearing impaired and orthopaedic students as the population of the differently-abled students of the University of Kelaniya. According to the findings of this research, the library's annual budget does not allocate a separate amount for these special needs students. It has been found that there is no hardware or software for differently-abled students. 67.6% have access to all the sections of the library and 32.4% doesn't have access to any section of the library. Therefore, it is very important for the library to pay more attention to the students who find it difficult to travel every section of the library. 44.1% are using only printed sources. But found that, the library has no tools or information sources other than DVDs, CD ROM, computers, braille books. 18.8% stated that they don't have the required information sources in their library. It has been revealed that audio book and e book are not available in the library to meet the needs of visually impaired students. It has been revealed that differently-abled students mostly use both printed and unprinted sources and it is 50% as a percentage. 1% say they are not at all satisfied with library access. The library should pay attention to it, even though it is a very small percentage. 46.9% are satisfied and 40.6% are slightly satisfied. According to this, it is confirmed that a group of differently-abled students have access problems to the Kelaniya university library. 61.8% of the respondents said that, it takes 1 to 5 hours to search for information sources and 38.2% stated that, it takes less than an hour. Accordingly, it has been revealed that they spend more time in the library due to the difficulty in finding the sources of information, the difficulty in understanding the classifications, the difficulty in searching the names of the computerized information sources and the lack of a qualified training officer to serve the differently-abled students. It is clear that differently-abled students do not have the necessary technical tools. Voice recorders have been found to be a priority. Second, the braille machine was found to be an essential tool. It was suggested that information needs should be met through special programs for differently-abled students and steps should be taken to provide the required information facilities efficiently using new technologies. Therefore, this research proposes that technology integrated sources such as braille books, audiobooks and voice recording software should be made more accessible for visually impaired readers by the library.

***Keywords:** Visually impaired Readers, Hearing impaired Readers, Physical disabilities, Readers Service, University Libraries*

Introduction

It is a basic requirement for all university students to use the University Library and there are students with special needs among these students. Therefore, the library should be in a way that meets their information needs so that they too can receive a university education. The university library should be accessible to anyone. According to the World Health Organization, disability is a "deficiency of physical and mental abilities." Accordingly, persons with physical and

mental disabilities are considered to have special needs. There are also students with special needs among the university students who use a university library. Students with disabilities who visit university libraries are more likely to be challenged than other average readers, and the average reader may not need sponsorship, but students with special needs may need more sponsorship within the library. The Universal Declaration of Education for All states: "It is important that society pays special attention to the educational needs of persons with disabilities."

Objectives

- Identify facilities and services available for students with special needs.

- Study on the use of libraries by university students with special needs.

- Identify difficulties faced by students with special needs in the use of university libraries.

- Proposing measures to be taken by the students with special needs to avoid the difficulties encountered in the use of university libraries with the advancement of modern technology.

Methodology

This research uses case study research methods, and h. According to H. Odam, case study is a technology that analyzes the characteristics of an individual or a group. Case study involves a thorough study of the individual or group involved in the research in data collection. "The case study method of data collection is a technique by which individual factor whether it be an ititution or just an episode in the life of an individual or a group is analysed in its relationship to any other in the group."

Results

The research was compiled by 40 students with special needs from the University Library of Kelaniya, who obtained data and information from online quizzes and interviews, including visually impaired, hearing impaired and visually impaired students and hearing impaired students. It is 95% as a percentage.

91.9% of university students with special needs use the university library and 8.1% do not use the library. Accordingly, the highest percentage of students use the library and the number of students who use the library daily with special needs is 6.1% as a percentage, 33.3% as a weekly usage and 27.3% as a few weeks use of the library for a few months. The percentage of people who use the library once is 27%. The percentage that never uses the library is 3%. It has been

revealed that students with special needs mostly use both printed and none printed sources and it is 50% as a percentage. 44.1% will use only printed sources. This library has DVDs, CD-ROMs, Computers, Brail books, Audio Books, E-books. But other equipment and sources of information were also found to be lacking.
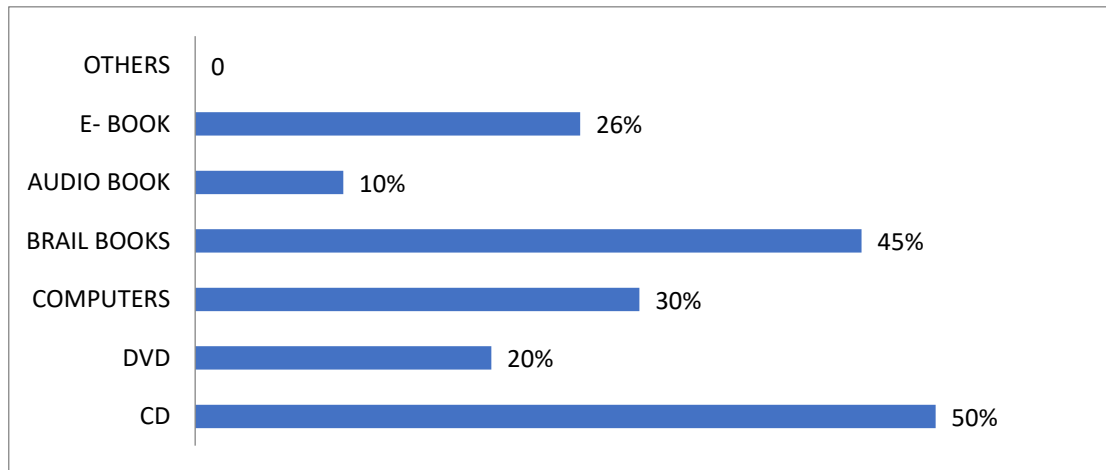
Figure 1: None printed information sources

The main reason for never using the library is that it is difficult to use the library due to poor eyesight. Although visually impaired students are common print sources, it is important that the font is enlarged and the information source is formatted to suit them. In addition, it has been identified that it is very difficult to get to the library in a wheelchair, that the library does not have the required books in Braille, and that ordinary books in the library cannot be used because of poor eyesight.

The raw material source that most students use is computers, which is a percentage of 60%. The least used source material is the CD. It is 5% as a percentage. According to the findings, 67.6% have access to every section of the library. 32.4% do not have access and Accordingly, it is very important for the library to pay more attention to the students who difficult to travel to every section of the library. As well as no financial allocation will be made to provide services to these students.

It has been found that there is no hardware or software for students with special needs and and no financial allocation will be made to provide services to these students. It has been revealed that 50% of the staff are satisfied. However, it has been revealed that it is essential to have a specially trained officer to serve students with special needs. It is clear that students with special needs do not have the necessary technical tools. It has been found that voice recorders are a priority. Second, the Brail Machine was found to be an essential tool.

Conclusion

University libraries have a special place in teaching, learning and research activities. The

university library should provide maximum support to the users to fulfil their educational needs and special methods should be followed for differently-abled students to use the library. The research problem of this research is the lack of facilities of the university library required by differently-abled university students and its main objective is to explore the difficulties encountered in the use of the university library. Other objectives include studying the use of libraries by differently-abled students in the university, studying the specialised services and facilities and the further exploration of the hardware and software they require. Because of corona pandemic the research is based on the case study methodology and the data were collected from 40 male and female visually impaired, hearing impaired and orthopaedic students as the population of the differently-abled students of the University of Kelaniya. According to this, it is confirmed that a group of differently-abled students have access problems to the Kelaniya university library. It is clear that differently-abled students do not have the necessary technical tools. Voice recorders have been found to be a priority. Second, the braille machine was found to be an essential tool. It was suggested that information needs should be met through special programs for differently-abled students and steps should be taken to provide the required information facilities efficiently using new technologies. Therefore, this research proposes that technology integrated sources such as braille books, audiobooks and voice recording software should be made more accessible for visually impaired readers by the library.

Recommendations

Increasing the number of copies of the most used books. Deployment of a separate trained officer to meet the information needs of students with disabilities. Acquisition of Software for Visually Impaired Students. Technical facilities need to be improved. Display a list of new books. A librarian visits hostels with disabled children and inquires about their information needs. Physical facilities should be improved. Providing information online for students with special needs and introducing a separate telephone number to obtain information from the library. Conducting separate orientation programs in the first year for students with special needs. Giving students with special needs the opportunity to keep books from the library a few days longer than the average reader. Adding audio book and e book to library collection. Allocation of funds to provide services to these students.

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Preparing Library and Information Science Educators and Librarians to Collaborate in Teaching 21st Century Skills: Issues of Concern in Nigeria

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Abstract

This exploratory work aims to teach librarians and library and information science educators to collaborate in teaching 21st century skills: Nigerian concerns. The study was guided by five research objectives. To choose library educators and librarians in Nigeria, descriptive survey, multi-stage, and stratified sampling approaches were used to create the study's population and sample size. To acquire information about them for data collection, an online survey questionnaire was created and disseminated through email. SPSS, percentages, and frequency counts were used to evaluate the data. Recommendations were made and a conclusion was reached based on the information received.

Keywords: Collaborative Work, LIS Educators, 21st Century Skills, Librarians, Nigeria in Africa.

Introduction

Collaboration encourages people to rethink, articulate, and get clarification about their skills. It acts as a mirror, allowing them to see their own strengths and weaknesses. Teams operate better together and fill each other's deficiencies since two heads are better than one. The discrepancy or void between theoretical knowledge of library and information science abilities and practices and actual application of those skills and practices by LIS students necessitated or formed the foundation for this article. This work is almost always intended to prepare library and information science educators and librarians to collaborate and take students along by coupling theoretical knowledge with practice, as well as working together to teach students the skills they need to succeed in the twenty-first century.

Collaboration between librarians and library educators is critical to achieving high levels of performance and results (Latham, Gross, & Whitte, 2013). It benefits both parties, as well as the pupils as a result (Abioye, 2013). In keeping with the conference theme of "re-envisioning and promoting resilient libraries beyond global crises: challenges, tactics, and innovations," collaboration is required to see things from a different perspective than one's own. Collaboration is defined as a partnership between two or more persons who have agreed to collaborate or carry out an activity that will benefit both them and society (Hue, 2016).

Statement of the Problem

The dynamics of knowledge management and library employers' demand for qualitative service delivery in information architecture have created a growing demand for library and information science educators to rethink their services in order to bridge the gap between theory and practice

in librarianship in recent history. As a result, it's critical to investigate the benefits of LIS educators and librarians collaborating in the teaching of 21st-century skills (Bennett & Simning, 2010). Furthermore, particularly in Nigeria, there is a paucity of literature on the topic. Given the aforementioned, a study like this that incorporates the experiences of the University of Nigeria, Nsukka, and Nnamdi Azikiwe University, Awka, becomes invaluable. As a result, the purpose of this study is to prepare librarians and library and information science educators to participate in the teaching of 21st century skills: Nigerian challenges.

Literature Review

As with many other professions, the library and information science field has undergone transformations and paradigm shifts as a result of technological improvements in both theory and practice. Due to the additional responsibilities, they must embrace teamwork in order to unite the force and conquer the challenges that come with the new jobs (Perez, 2015). LIS education has been around in Nigeria for a long time etymologically, the level of collaboration between LIS educators and practicing librarians appears to be very low, which is what the current study aims to address in order to avoid impeding quality assurance, curriculum development, and LIS graduate employability.

Recommendations

 LIS educators and librarians should develop a positive attitude and perception towards collaboration in many areas such as research, teaching, publication, curriculum development e.t.c.

Different 21st century skills should be inculcated to the students by librarians and LIS educators especially entrepreneurial skills. Openness towards collaborative work will enhance collaboration between LIS educators and practicing librarians. E.t.c.

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Citation analysis of awarded doctoral theses by Department of Library and Information Science, Assam University, India.

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Abstract

Bibliographies are lists of past literature that influenced an author in his present academic or research works. The study involves 10 (ten) doctoral theses with 2408 citations appended awarded during the period of 2016 to 2017 by the Department of Library and Information Science of Assam University (AU). A decadal period of 2010-2019 is the most productive one with 937 (38.91%) citations contributed. The average decadal growth rate is 150.92%. One-authorship is the most prevalent nature of authorship with 1128 (46.84%) citations. Over half of the total citations are received by articles from cited Journals with 1308 (54.32. %) citations, followed by literature type of Book and Book Chapters with 414 (17.19%) citations. Almost half of all the citations originated or produced out of India with 1196 (49.67%) citations. English is the predominant medium of communicating research works.

Keywords: Citation analysis, Doctoral theses, Authorship, Biblimetrics,

Introduction

Bibliographies are lists of past literature that influenced an author in his present academic or research works. The author acknowledges them by giving them a token of recognition called 'citations 'at the end of his works- thesis or dissertation, in the form of 'references or bibliographies' **(Peritz, 1992).** One of the most important bibliometrics tools and techniques is citation analysis. The Ohio State University in its websites defined it "as a way of measuring the relative importance or impact of an author, an article or a publication by counting the number of times that author, article, or publication has been cited by other works" **("Ohio State University",2019).** Assam University, India is a central university established in the year 1994 and the department of Library and Information Science was started in the year 2009 **("Assam University ", 2021).**

Background Studies

A bibliometrics study conducted by **Islam, Islam & Mondal (2018)** had highlighted that the nature of authorship in the field of library science is mostly single-authorship. Two different works by **Ramin et.al (2015) and Shahram et.al (2013)** revealed that overwhelming literature in the field of library science is published in English-medium. Another study by **Maharana, Nayak, and Sahu (2006)** had shown that most of the literature cited by researchers in the field of library science is in a print medium. Citation analysis of the study by **Banateppanvar, Biradar & Kannappanavar (2013),** clearly revealed that literature from journals are referred

the most for research works in the field of library science and followed by books and books chapters.

Objectives

- To analyse the Decadal-Distributions of Citations;

- To study the Citations-Share of Authorship Collaboration Patterns;

- To study the Resources –Wise Distributions of Citations;

- To analyse the Country-Wise Distributions of Citations;

- To determine the Language-Wise Distributions of Citations; and

- To distribute the Format-Wise Share of Citations.

Findings & Conclusion

- The period of 2010 to 2019 is the most productive era with 937 (38.91%) citations are received from published literatures; the second and third most productive decadal periods are 2000-2009 and 1990-1999 with contributions of 859 (35.67%%) citations and 218 (9.05%) citations, respectively. From the decadal period of 1950 -1959 and below, the number of literatures cited is just one-digit each. And the average decadal growth rate is 150.92%.

- Almost half 1128 (46.84%) citations are published in the nature of one-authorship, with a wide margin followed by two-authorship collaboration with 673 (27.95%) citations. From authorship collaboration of three authors and above shares for each percentage is less than 10%.

- More than 1308 (54.32%) cited articles from Journals, followed by literature type of Book and Book Chapters with 414 citations (17.19%). Not far behind is the share of usage of websites as literature with 341 citations (14.16%). There are over a dozen types of cited literature.

- Almost half of all the cited literatures are produced or credited to India with 1196 (49.67%) citations; the next two productive countries are the UK of 515(21.39%) citations and the USA of 434 (18.02%) citations, respectively

- Almost all cited literature 2401 (99.71%) citations are published in English-language. And the remaining 1 % is shared amongst the other cited languages or dialects

- Print sources of literature make up 1498 (62.21%) citations and the rest are digital sources with 910 (37.79%) citations. Those references are attached with URL (Uniform

Resource Locator) links; with websites' domains such as '.org', '.com', and DOI (Digital Object Identifier) are taken as digital sources.

- The department of library science in Assam University (AU) is quite young; however, it is quite dynamic in its production of academic works as the above analysis of citation has indicated.

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Awareness of the Understanding on the utility of the Palm Leaf Manuscripts: a comparative study

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Abstract

The recent advances in the information and communication technology world, have transformed the role of local and foreign education sectors. When considering the local education system, it is clear that the indigenous qualities we have inherited from our ancestors should be preserved in an era of decay. Indigenous knowledge is far more spoken of and holds higher value than just knowledge itself. Across the world, special attention is focused not just on knowledge, but on indigenous knowledge. Therefore, it must be acknowledged that the words and the ideas of the indigene are of great importance. Indigenous knowledge, rather than traditional knowledge, is a cultural heritage of every human society. Thus, indigenous knowledge is specific to a particular geographical area. That indicates that, the knowledge possessed by the people living within a certain geographical area or region is their traditional knowledge or indigenous knowledge. Sri Lanka: a country which has an ancient history in writing traditions preserves its uniqueness through palm leaf manuscripts. It can be considered that palm leaf manuscripts have vastly contributed in the process of presenting the local historical knowledge from generation to generation. The Palm Leaf Manuscripts contain a wealth of knowledge related to various subject areas. The research asked whether Sri Lankan university students were aware of Palm Leaf Manuscripts. It examined the students' understanding on why Palm Leaf Manuscripts are a locally valued heritage that should be preserved. A sample of undergraduates from the Department of Library and Information Science, History and Archeology from the University of Kelaniya was obtained for this purpose. The main data collection instrument used was the questionnaire method, and primary data was collected through distributing the questionnaire to the undergraduates of each department using the random sampling method. Secondary data was collected through the printed sources which were considered relevant to the research. Data analysis showed that they had a general understanding of Palm Leaf Manuscripts.

Keywords: Palm Leaf Manuscripts, Indigenous Knowledge, University of Kelaniya, Manuscrip Study

Introduction

Palm-leaf manuscripts are one of the earliest forms of written media that bears a prominent place among the historical sources on Sri Lankan national cultural heritage. Until the advent of the printed papers, Palm-leaf Manuscripts served primary function on the Buddhist doctrine and canonical literature. The history of ancient Sri Lankan chirographic belongs to the arrival of Arahath Mahinda Thero. 'Mahindagamanaya' can be described as a turning point in the history of Sri Lanka. As a result of this, the art of writing in Sri Lanka has become widespread. Earlier palm leaf manuscripts used to write commentaries. During the era of king Walagamba (89-77 BC), canonical commentaries were written down on palm leaves at Mathale Aloka

Viharaya. It added a new dimension to the Sri Lankan art of writing. With this state patronage, Sinhala writing art was developed in and around temples. The Pothgula (Library) in these temples was nourished by Palm Leaf Manuscripts.

Old palm leaf manuscripts were mainly used in three main fields: religion, literature and practical science. Accordingly, under the patronage of kings and the guidance of Buddhist monks' information that in form of Buddhist scriptures passed orally from generation to generation were documented, in the 1st century B.C. Kotte era is known as the golden age of Palm Leaf Manuscripts writing. During this period a new set of Palm Leaf Manuscripts were written and a large number of Palm Leaf Manuscripts were copied. Among them were religious, language literature, medicine, veterinary medicine, astrology, yantra mantra, fictions, customs and ceremonies, law, border (Kadima), story (Withthi), history, taxes and income, agriculture, state governance, Buddhist education, world detail and a large number of Palm Leaf Manuscripts on various subjects such as music and art.

The University of Kelaniya, which is the basis for this research, has a proud history of over 150 years. The Vidyalankara Pirivena which was established on 1st November 1875 AD has developed into the University of Kelaniya. Vidyalankara Pirivana gained the status of a University based on the Western Model in 1959 under the Universities Act No. 45 of 1958. Yet our academic heritage dates back to the beginning of Vidyalankara Pirivena. The faculty of social sciences was instituted in the academic year 1981/82. After the established this faculty, students had opportunity to study traditional disciplines like History, Archeology, Geography, Philosophy, Economics, Sociology, in addition the new subjects were added with the purpose of opening more job opportunities for graduates like Mass Communication, Library & Information Science, Sport Science and Physical Education. The Department of the Library and Information Science was established with the purpose of opening more job opportunities for graduates in the year 1973. The Department of History is one of the oldest Departments in the University of Kelaniya. It was initiated by the renowned historian Prof. Hem Chandra Ray. The Department of Archaeology has extended history from 1973 as a sub department under the Department of History. In 1977, the Department of Archaeology established as a separate department. Since its inception, the Departments have been working to educate students under the art of writing on Palm Leaf Manuscripts and Inscriptions.

With the advancement of technology in the world, discoveries have emerged. This has resulted in many changes in the local and foreign education sectors. When it came to local education, it was clear that the indigenous qualities we inherited from the ancestors of the past should be preserved in an era of decaying age. In this case, particular attention was paid to the nationally highly valued Palm Leaf Manuscripts. The Palm Leaf Manuscripts contained a wealth of local knowledge related to various subject areas. The three Departments have created syllabuses to

give knowledge to their students about Indigenous Knowledge and they in particular paid attention to the nationally highly valued Palm Leaf Manuscripts. Specially those three Departments were faced to update their students' knowledge about art of writing of the palm leaf manuscripts. The problem of this research is, would the University students be aware of the need for preserving the Palm Leaf Manuscripts and their usefulness?

Objectives

- The purpose is to Examining the understanding of the university students regarding the Palm Leaf Manuscripts which is containing the Indigenous Knowledge.

- To examine the suitability of the Human Resources of University to update the society understands of Palm Leaf Manuscripts.

- To examine the understanding of the university students about the cultural heritage of indigenous knowledge.

Methodology

This study was conducted as a comparative study of undergraduates for understanding about the palm leaf manuscripts. The population of this study was the University of Kelaniya three departments' students. They are the Departments of Library and Information science, Departments of History and Departments of Archaeology. The sample was selected as random, through the 90% confidence interval, adopting stranded Mathematical formula according to the Mood et al', applicable to stratified sampling.

$$n = \frac{\sum_{i=1}^{l} N_i p_i q_i}{ND + \sum_{i=1}^{l} N_i p_i q_i}$$

$$n_i = \frac{n N_i}{N}$$

Using this mathematical formula research sample was selected among the undergraduates of Department of Library and Information science, History and Archaeology, representing a total of four years' students, and a random questionnaire was distributed for them. Also, secondary and tertiary data were collected through the printed sources which was considered relevant to the research. The analysis and manipulating the collected data was done by using statistical analysis software.

Results

According to the findings of this study, it was revealed that most of the undergraduates of the three departments have General knowledge about the Palm Leaf Manuscripts. It percentage is more over 50%. Compared to Department of Library and information science student's and undergraduate of other two departments, the students of the department of Library and

information science have highly understanding about the palm leaf manuscripts and cultural heritage of indigenous knowledge. The reason for that, the department of library and information science has given their students, knowledge about the art of palm leaf in Sri Lanka by the syllabus.

At the research, the primary questionnaire was asked about the general understanding of the Palm Leaf Manuscripts from the sample data contributors. There were concerning the four academic years 96.22% of students with the said level of understanding and 3.77% had no ordinary understanding.
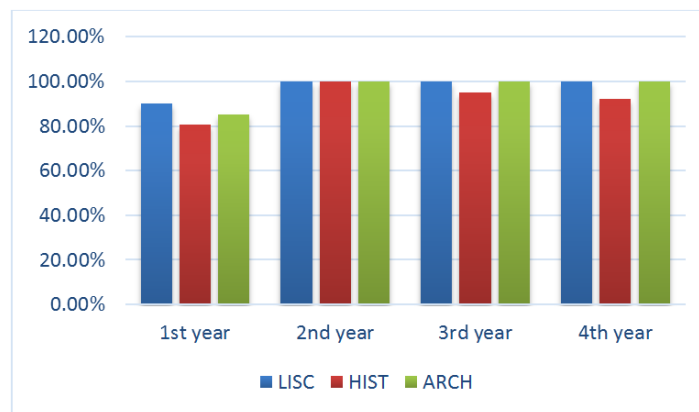
Figure 1. Undergraduates who have general knowledge about palm leaf manuscripts.
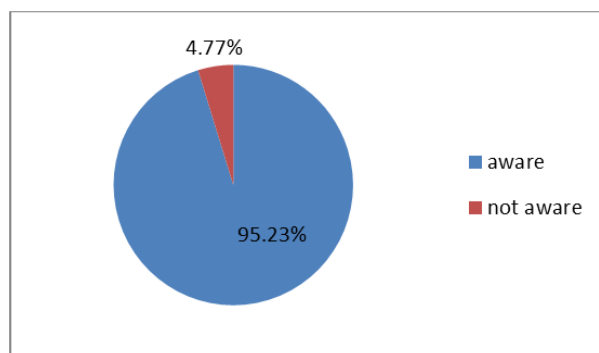
Figure 2. Awareness about the general knowledge of Palm leaf manuscripts.

Out of the respondents, 37.77% had reasonable knowledge on Database understanding of Palm Leaf Manuscripts usage and its context, the overall understanding of raw materials, design technology, and usage of Palm Leaf Manuscripts design, while 62.23% did not.
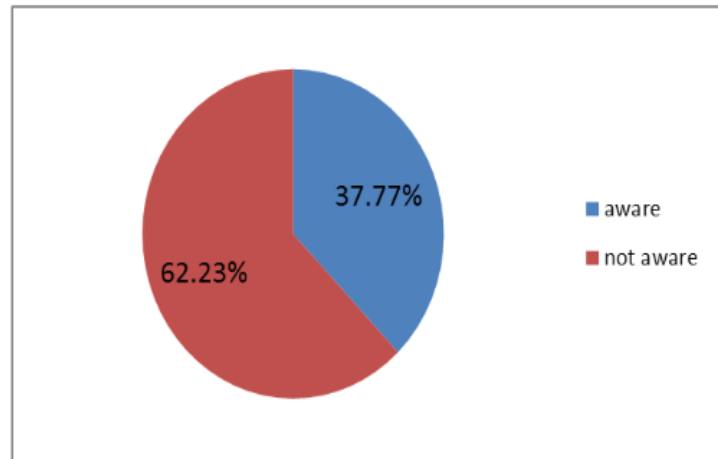
Figure 3. Awareness about design technology and usage.

Considering the knowledge on Palm Leaf Manuscripts preservation and conservation theories, as well as the awareness and understanding of databases of Palm Leaf Manuscripts conservation institutions, 35.23% of the students were aware, while 64.77% of the students did not understand that Palm Leaf Manuscripts should be preserved.
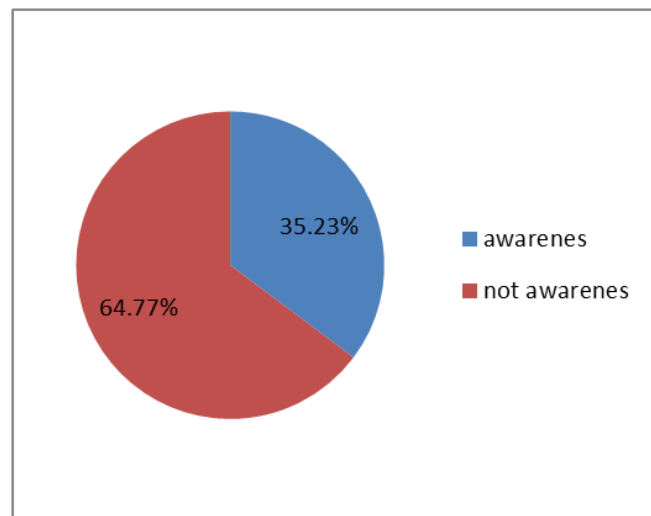
Figure 4. The sudents who have conservation knowledge about palm leaves.

Conclusions

The data also revealed that the majority of undergraduates in the Department Library and Information Science have a general understanding of Palm Leaf Manuscripts. When looking at the percentage of total data contributors, it is evident that the second year, third-year and fourth-year undergraduates' general knowledge of Palm Leaf Manuscripts are always higher than in the first year undergraduates and it also means that undergraduates who study Library and Information Science and Archaeology have more understanding than the History undergraduates.

Most undergraduates do not know about the Palm Leaf Manuscripts design technology and of the materials used and their uses. According to the data obtained, it was concluded that second -year Library and information science, and fourth – year Archaeology undergraduates have a deeper understanding of Palm Leaf Manuscripts. The main reason for this conclusion was their study on the conservation of and about Palm Leaf Manuscripts as a subject. These Palm Leaf Manuscripts are a heritage to be conserved, and it is evident that there is considerable awareness among the Library and Information science and Archaeology undergraduates from the Department of conservation theories.

Recommendations

At present, Palm leaf manuscripts are of little importance. However, it is clear that Palm leaf manuscripts are rich in indigenous knowledge documented in the past. Some of the recommendations suggested, are based on the findings. They are as follows.

- Organize programs to educate students of the entire university including the Department of Library and information science, History and Archaeology, on the national significance of the palm leaf manuscripts.

- Organize awareness programs for students on palm leaf manuscripts preservation and providing practical training.

- Launching National and International Research Seminar-Workshops on palm leaf manuscripts.

- Establishing museums, research laboratories, and laboratories specializing in palm leaf manuscripts. Establishment of knowledge propagation centers and establishment of heritage in a systematic preservation manner.

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The Academic Library Support for E-Learning: Students' Perspectives and Web Observation

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Abstract

In today's digital age, ICTs have become an influence for the education sector, which has created exceptional learning experiences through virtual platforms. E-learning is capable of widening access materials, equality, reducing cost, improving quality, flexibility and maintaining interactive learning in university education. University education is geared towards teaching, learning and students are adept at new knowledge and information. Academics and information professionals help them develop information to enhance their knowledge in specific areas. The academic library is the largest provider of educational information and resources. In the e-learning context, the university library has a huge role and should directly support the educational process as well as research by providing facilities. University libraries continue to offer services that build on traditional learning. It also needs to improve how we support virtual users. Digital natives tend to learn virtually, and library services need to expand to support them. This study was conducted in advance of the COVID-19 pandemic to determine the status of academic library support and e-learning initiatives from a student perspective. The quantitative methodology was applied with the data gathering through a questionnaire from undergraduates. However, e-learning has rapidly changed in response to the COVID-19 pandemic. It has also resulted in a sudden transformation of library services. To validate the study results, of the research, the web observation has been added and to determine the recent development of library support for e-learning. The results of the study show that students expect library services through multimedia mode and expect on-line guide sessions on the use of modern technological facilities, information retrieval facilities for distance learning. It appears that the user expects to have access to information in a highly flexible and timely manner.

Keywords: Learning support, Academic libraries, E-learning, User perspectives, Covid-19.

Introduction.

The growth of information and communication technologies (ICTs) has brought a big shift from the traditional educational process to the massive use of multimedia and Internet technologies (Prasad, et al, 2017). E-learning has introduced new approaches to learning using information and communication technologies and digital devices. Moreover, it made a quick and easy of access for education for students and other participants. This is a process of interactive learning (Kanaganayagam & Fernando, 2013). Educational institutions have identified the value of e-learning as a platform for transforming people, performance, and skills (Prasad, 2017)

Hence, future-proof education concepts such as student-centered teaching, self-learning and collaborative research culture have been widely introduced to the library system (Sagitova, 2014) The library can support faculty works, reach students and staff by directly engaging in

teaching, learning and research. In the current situation, the positive and active participation of libraries is necessary for an effective online learning program as they provide facilities for teaching, learning, research, and outreach. The library should understand current trends and information requirements of the digital community. The library should increase the direct involvement of university work in the respective universities and the library should develop interactive and collaborative participation throughout the university system.

OBJECTIVES

- In this study, the research objectives were approached in the following way.

- To identify the students' perspectives on academic library, support on E-learning.

- Library support for online learning and education through web

Reresearch methodology

A quantitative and descriptive approach was adopted to recognize the importance of university library support for online learning. As a case study, this study selected one state university in Sri Lanka. The focus group was on undergraduates. According to the statistical report from the University of Kelaniya (Kelaniya, 2018), the total student population was 10,000. It has checked with the Morgan's table; students' sample was 370 (4%) it conceded as 400 students' sample from the student population. (Sample Size Determination Using Krejcie and Morgan Table, n.d.) The stratified random sampling procedure used in this study. This sample was broken down into four years, according to the stratified random sampling methodology. This study has granted ethical approval from the Ethical review committee of the University of Kelaniya. The process of collecting data from students based on a questionnaire printed by the visiting researcher. Finally, the observation of the library's website also provided information on current progress.

Findings

The student survey has been targeted for 370 (4%) participants across all the studying years of the university of Kelaniya. However, only 228 participants responded within the defined time frame. Also, under the background information it has considered the students' gender, frequency, it has shown a higher number of female participants, corresponding to 66% of total responses. According to the respondent's analysis, most participants are between 21 and 25 years old, or 89.5%. Then it considers students' distribution of faculties. There are six faculties. Of the total number of 228 students surveyed, most belong to the Faculty of Social Studies. That is 44%. The responding students' degree programs have been categorized as Honors Degrees and B. A Degrees. There were more special students, 64.5%. The remaining response

rate for students enrolled in the general degree was 35.5% and covered the average responses. Students' year-wise representation indicates the maximum representation from the 2nd year students (35.1%) and minimum representation from the 4th year students (19.3%). The students' library usage is identified in both the physical and online. This is illustrated in Figure 1: Library Usage Rate.
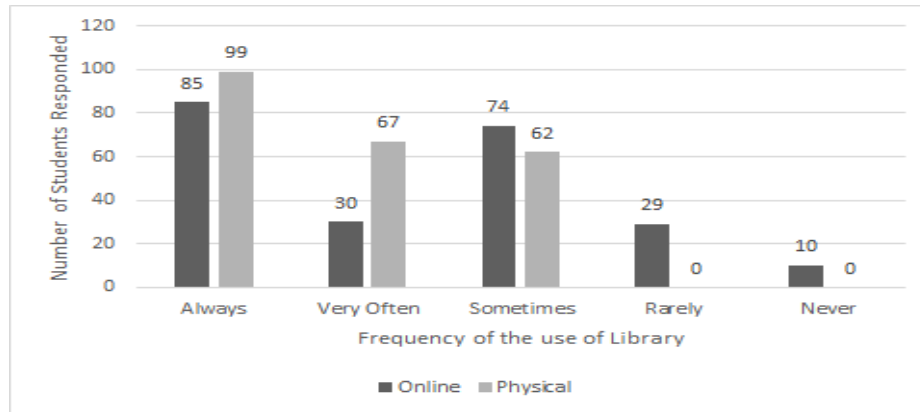
Figure 7: Frequency of library use.

However, this study surprisingly revealed that students continue to access the library physically rather than online. Most of the students are using LMS for their study. It has 72% and some are not using LMS. It shows 28%. Support from the university library for on-line learning was identified under four main components with general suggestions. They are E-resources, E-services, ICT infrastructure facilities, Roles, and skills of information professionals. All the E-learning related options were asked to be rated on a five points of Likert scale rating from 5 to 1, where 5 is the highest value and 1 is the lowest value. E resources, E Services, ICT infrastructure facilities, Roles, and skills of the information professionals. According to all those above-mentioned categories shows that library facilitating services are in satisfactory level according to the student's viewpoint.

E-resources and E-services are interconnected. Using e-resources, libraries can provide a variety of e-services. According to that, the study covers the user perspective on Proper arrangements of existing resources, Library new acquisitions based on the modern learning process, subscribing databases, Arranging Digital library services, implementing a proper searching facilities and features, subscribing e resources including databases and e journals. The consideration of the students' rate regarding the e-resources provided by the library as supporting e-learning process of the university, It was on the average level. After the covid situation, it has been developed with much more advanced facilities and that has identified through the web observation process. Under the e services provided by the library, that has considered supporting for the self-learning activities, Developing IL skills, Research supports for the students, information sharing regarding the free resources, library resource sharing

services on individual request, effective communication system among both parties, OPAC and the guiding students electronically. It has shown library self-learning support rated by students on average and it is at a satisfactory level. Figure 2 below shows the scoring levels of students on OPAC as e-services provided by the library.
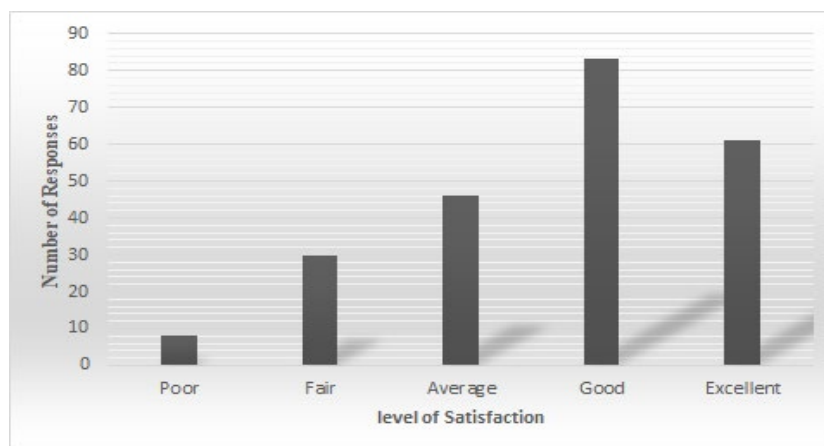
Figure 8: Frequencies of OPAC as a E- services

The library needs to electronically guide users in their studies. In an academic environment, libraries need to guide their users to avoid plagiarism while they are highly using the electronic media. In that way users can check their contents by email request to the library and the library can promote some electronic videos, PowerPoint presentations to guide users to avoid unethical writing works. The library can provide ICT infrastructure facilities as well as   other learning resources. There were six sub areas checked under ICT infrastructure facilities. ICT facilities have categorized into two main groups as available modern ICT facilities and Acquisitions of modern   technological   equipment's.   The   student's   perspective   was   satisfactory level. Academic library support for E-learning is necessary in the success of university education. Based on the user experience, the study gets the view of the users regarding the information professionals.   That covers how the library staff act as information professionals, whether they can help users, and do they have relevant skills and qualifications. Academic library staff should be capable of providing services to them and they are also considered as scholars of the academic community. As an academic library staff, all members have different kinds of roles to guide university users. First, consider the instructors' role and under that they must Implement and conduct successful short-term training courses relating to curriculum developments and e-learning activities, The students have rated higher values for the 'Neutral'. The research identified that the Librarians have been upgrading themselves to extend services in areas related to research (Sanjeeva, 2018). The library users are expecting better and user-friendly services and guidance from the library staff that can be applied to any mode of services. That is illustrated in Figure 3.
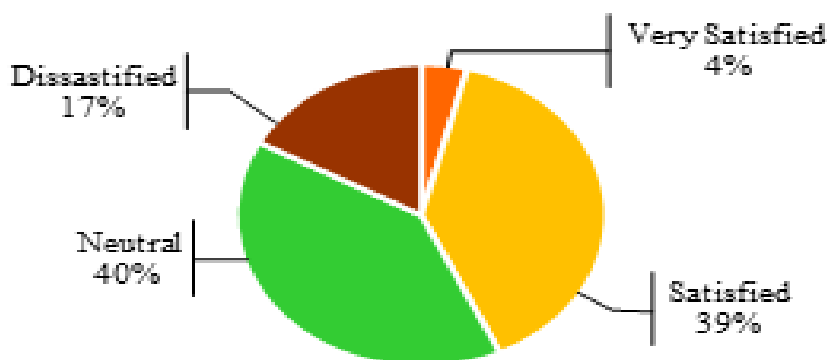
Figure 9: User satisfaction of friendly services

Web observation in covid 19 situation

The COVID-19 outbreak began in March 2020 in Sri Lanka. In that situation, the whole country was blocked and the effect of that, there was a sudden change in all the areas, mainly in the education sector. All the levels of education have rapidly changed to online education with lots of challenges and creating opportunities. As the state University, university of Kelaniya also faced the same situation and they started work from home with teaching through e-learning supporting tools like Zoom, Microsoft Team etc. The same challenge came to the university library, and they have identified web-based user services. That cannot start at once. This should ensure proper planning of work with well instructions and personnel support. Here it has been added as a general web observation that has applied to identify the new e-learning based library services started by the library through their web site Some of them are an attractive and user-friendly web interface, subject liaison services with separate faculty pages on the library website. There is a subject specific academic librarian to coordinate subject liaison service. The subject liaison librarian works for student support to identify their requirements and faculty coordination to identify the recommended readings for each subject under the faculty. Recommended reading facilities also provided through the web. The 24/7 chat services, Video tutorials with instructions to use of all full text databases, video tutorials for all eBook subscribed by the library, Quick access for e-resources, IMF library, Theses and Dissertations, Past paper collection, OPAC search facility, Database searching facilities, Federated searching facilities, General user guide collection for day to day IT based works, Document Supply Services, VPN services and guide, Training guides, and Social Media Support.

Discussion and conclusion

The support of the academic library for the study of E-learning identified by the suggestions of the user. According to that, Students need active collaboration with friendly services from the university library, more training programs, more E-learning related materials with access to up

to date collection. They have mentioned that user awareness programs on new resources and existing services are needed, the library can improve services and information awareness through the new social media and email. This may help to save time for the users. According to the students' responses, faculties have an important responsibility on getting library support for their e-learning activities. That means the faculties can positively influence the student's learning process by productively associating with the modern ICT tools and library resources. It is evident that a higher number of students are using the library infrastructure facilities when they are in the second year and above, during their study at the university. The university library systems can implement unique services for their users by clearly identifying what they need to do for the user's information needs. Library users are expecting active collaboration & updated discussion on the latest technology. That will help to improve library services for the e-learning environment. For that, the libraries can facilitate a proper communication system among the users. Further research must be conducted to identify the emerging trends of library user behaviors to provide better services for the university regardless of the physical opening hours. With the post COVID 19 and the new normal situation, University of Kelaniya library has started more user services they were expecting from the library side. That has created remarkable milestones in the Sri Lankan academic library sector.

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Information Literacy (IL) programs, teaching, and assessment methods practiced in the Sri Lankan state university libraries for the undergraduate students.

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Abstract

Teaching Information literacy helps university students to think and act critically and creatively, to make decisions effectively, and to solve their study related problems. The current IL programs, and the teaching and assessment methods practiced in the Sri Lankan Universities have so far not been empirically researched. Therefore, the objectives of this study are to explore the Information Literacy programs, teaching, and assessment methods, practiced in the Sri Lankan state university libraries for the undergraduate students. The modified Delphi Method has been used in this research. The findings of the study reveal the nature of the active IL programs in the universities, the teaching methods used, and assessment methods that are in practice. All the university librarians have taken many steps to implement information literacy programs for the undergraduate students.

Keywords: Information literacy programs, Sri Lankan Universities, Information literacy teaching, Information literacy assessment.

Introduction

This extended abstract focuses mainly on the current Information Literacy (IL) programs, teaching, and assessment methods practiced in the under-graduate programs, by the Sri Lankan state universities. This abstract explains the partial findings of the ongoing Ph.D. Research project titled "A Conceptual Framework for Information Literacy (IL) Education in the Sri Lankan Universities: A Delphi Study". Information skills are the basics that pave the way for developing the information literacy skills. The students who are empowered with information skills are able to improve their information literacy skills as indicated by the American Library Association, "Information Literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." (American Library Association, 1989). Accordingly, by applying the deep learning methods instead of surface learning, the students become information literate independent learners, critical thinkers, problem solvers, and lifelong learners.

Objectives of the Study

To explore IL programs currently being implemented in the Sri Lankan state university libraries for the undergraduate students To identify the instructional methods used by librarians to teach IL to the university undergraduates To examine the assessment methods used by the librarians to assess IL programs.

Research Questions

This study addresses the following research questions.

What information literacy programs are being conducted for undergraduates in the Sri Lankan state university libraries?

What are the instructional methods used by librarians to teach IL in the Sri Lankan university undergraduate programs?

What assessment methods are used by the librarians to assess IL programs?

Methodology

In order to elicit responses for the above questions and to achieve the main objectives of the research so as to propose a conceptual framework and a curriculum for the IL programs, the researcher applied the mixed research method called Delphi research technique. A panel of experts was selected as the respondents covering all the state universities, in order to obtain the qualitative and quantitative data. The respondents were Library and Information Science (LIS) experts who have provided their expert opinions on complex issues associated with the IL skills framework and curriculum building. Two rounds of data collection were facilitated through questionnaires and responses delivered via electronic mail and online. The received feedback and the analysis were shared among the panelists at the beginning of each round. In the last round the outcome will be validated by the subject experts.

Experts Identification (Population and sample)

A Delphi study is not based on a statistical sample that tries to represent a given population. It is a group decision process involving competent specialists who have professional experience in the subject area. Dixon-Thomas, C (2012), Dakin, G. H. (2010), Geiselhofer, M (2010), have used the purposive sampling technique in their Delphi studies related to information literacy. The panel for the study was selected from the twenty-three universities, Institutes, campuses, and departments from among the experts who conduct IL programs for the undergraduates. The expert list was prepared with reference to the university librarians' Association membership directory of 2020.

Results and discussions

With reference to the first research question "What information literacy programs are being conducted for undergraduates in the Sri Lankan state university libraries?" 59.1% respondents replied that they use their own curriculum to implement the IL programs. According to the responses received from the panelists the IL programs were conducted under two categories, viz, a systematic way and a nonsystematic way. They are as follows: Library orientation

programs, The One-shot Information Literacy Sessions, Information Literacy across the Curriculum, Credit-bearing Information Literacy Courses, Individual guidance, Research Methodology course, Reference Manager, Human Library Programs, Personal Guidance, Plagiarism, Database access, Referencing styles, Searching techniques and Literature surveys, Use of ICT tools for research purposes, Orientation programs conducted using Scavenger Hunt Library Tour, Brainstorming and Mind Mapping Techniques, How to use LMS in learning, Information Week, Ask A Librarian Service (Face to face/ through social media), Research Assistance Service. However, all the programs stated above are not practiced by all the university libraries equally. The second research question was "What are the instructional methods used by the librarians to teach IL in the Sri Lankan university undergraduate programs?" It was found from the responses that instructional methods vary from university to university. The main methods among them are lectures, Workshops, Seminars, Library tours, Demonstration, Classroom sessions, Guiding for the research, Mind mapping, social media, Online tutorials, Printed guides, short videos, Orientation programs, online orientation programs, Discussions via zoom, and PowerPoint presentations. The last research question was "What assessment methods are used by the librarians to assess IL programs?" As per the opinions expressed by the expert panel, 69.6% panelists responded that they evaluate students' satisfaction level at the end of the IL programs. For this question the following answers were received. Test at the end of the course, Surveys, Questionnaires, Rubrics, Case studies, Diaries and logbooks, Discussions, Mind maps, Multiple Choice Questionnaires (MCQ), Presentations, Projects, Quizzes, Worksheets, Portfolios, Projects, Pre and Post-tests, Questionnaires, Surveys, Discussions, and Using feedback forms.

Conclusions

It was found that all the Sri Lankan university librarians are aware of the importance of the IL concept. Different types of programs, instructional methods, and assessment methods are being conducted by the university libraries in a systematic as well as a nonsystematic manner, at different learning stages in the undergraduate study programs. One of the main findings of the study is that fifty-six percent of the panelists replied that their university did not carry out systematically conducted IL programs with an assigned credit value. It is recommended that all university libraries need to start IL programs in a systematic manner. The proposed framework and the curriculum that will be formulated as the result of the main research will help the Universities to conduct their programs in a more organized, systematic, faculty recognized, and effective manner.

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A study on some of the selected bibliographies compiled covering palm-leafs literature in Sri Lanka

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Abstract

The history of the book, which is considered to be the most powerful tool in the transmission of human knowledge, goes back to the origins of the art of writing. It is believed that the origin of the art of writing took place about 5000 years ago (Gunasekara, 1990). Documents originated long before the advent of printing. They were handwritten and called as manuscripts. Writing can be described as the most powerful tool for providing information and knowledge to human beings. According to the Sinhala Dictionary, the art of writing is the writing of literary art and work. It refers to the art of writing articles and books according to a certain pattern or tradition (Sannasgala, 1961). Writing means cutting, scratching and digging (The Oxford Thesaurus, 2021).

Keyword: Palm leaf, palm leaf manuscript, Bibliography, Bibliographic control, Manuscript Study

Art of writing

Some express that the oldest writing material in the world was rock (Weerasinghe, 2014). Since then, clay tablets have been widely used. Clay tablets were popular among the Babylonians (Weerasinghe, 2014). After clay tablets, papyrus came into multiple uses. Parchment came into use after papyrus. In addition, wood, bamboo, metal sheets, animal bones, and tree bark have been used as writing material in various periods and contexts (Perera, 1960). Among the Asian countries, palm leaf or Ola leaf was the most popular writing medium in the past in Sri Lanka, including in Burma, Thailand, Laos and Cambodia. There is evidence that the use of palm leaves for writing in Sri Lanka dates back to pre-Mahinda era (Somadasa, 1959).

Thus, the tradition of palm leaf writing in Sri Lanka, which began in ancient times, continued uninterrupted until the early 20th century. However, with the introduction of the printing press by the Dutch in 1737, the art of parchment writing began to decline. The printing and publishing of palm leaf books is an event that can be seen in the late 19th and early 20th centuries.

The Sinhala Sahitya Vamsa contains information on most of the books thus printed with the publication of the printing industry (Sannasgala, 1961).

Linguists acknowledge that written practice is based on human speech. E.B. Taylor and L.M. According to Morgan, anthropologists, writing and urbanization went parallels during the civilization (Pemananda, 1998).

Evidence shows that the art of writing has existed in Sri Lanka since ancient times. The art of writing is first mentioned in the story of Prince Vijaya, who established a settlement on the island in the sixth century. He sent a letter with gifts to King Padi asking him to bring the daughter of King Padi for his anointing. Mahavamsa (Buddhadatta Thero ed. 1959). Evidence for the use of documents in Sri Lanka dates back to the 6th century BC. It dates back to the 3rd century. That was in BC. With the introduction of Buddhism during the reign of Devanampiyatissa who ruled from 236-276. The short inscriptions in the caves that were dug and offered for the abode of the monks are considered to be the oldest inscriptions found today. Mahavamsa (Buddhadatta Thero ed. 1959).

Basel states that man first began the art of writing by writing on earth or sand (Weerasinghe, 2014). Later, various materials were used for writing. Pemananda mentions that the rock was the early oldest writing material in the world.

Study of bibliographies covering palm leaf
Ranasinghe (2011) pointed out, the tradition of palm leaf writing is mainly divided into two parts as the Chula tradition and the Maha tradition. The Chula tradition refers to works that do not take an abstract form, as well as documents written by ordinary people. Collective bibliographies were written by indigenous physicians, fortune-tellers, etc. can be referred to as works belonging to the Chula tradition. The palm-leaf books of the great tradition are classical Sinhala, Pali and Sanskrit texts, including Tripitaka literature. The language of these is expressive. In recent times, local pamphlet books first came to the attention of the state in the last quarter of the 19th century. Thus compiled 'A Descriptive Catalogue of Sanskrit Pali and Sinhalese Literary Works in Ceylon' by Rev. James de Alwis was published the first volume of the book in 1870

under the direction of the then British Colonial Government. The Quantitative bibliographic descriptions of bibliographies compiled over a period mentioned in the 20 and 26 pages of 'Bibliography of Ceylon' by Ian Goonetileke's first volume (Goonetileke, 1970).

The Museum Library was established in 1877 with the integrating of the collection of the Government Oriental Library. Compiled by Mahmudali Lewis de Zoysa, Librarian of the Museum produced the Catalogue of Pali Sinhalese and the Government Press published Sanskrit Manuscripts in the Ceylon Government Oriental Library with 26-pages list in 1882. Therefore, it can be called as the first bibliography compiled for the Colombo Museum Library.

The Museum Library Collection named as List of Pali, Sinhalese and Sanskrit Manuscripts in the Colombo Museum Published by Reese Davis in 1882, pages 46,58 of the Pali Books Magazine's short list was considered as Second Dictionary. This list is based on the catalog compiled in 1876 by Mahamudali Lewis de Zoysa. Then in 1992 by the Colombo Museum was published the 'Catalogue of the Colombo Museum Library Part I. Pali, Sinhalese and Sanskrit Manuscripts' contains with 20-pages publication entitled the Second Directory of the Museum Books Collection. Simon F. Gunawardena was Compiled the 'Catalogue of the Colombo Museum Library: List of Pali, Sinhalese and Sanskrit Manuscripts' in 1894 with 5 pages was considered as about Fourth Dictionary of short list Museum palm leaf Book Collection.

The Catalogue of Pali Sinhalese and Sanskrit Manuscripts in the Colombo Museum Library and it was the Fifth Catalog of the Colombo Museum Books is a collection of books with 47 pages compiled by Henry M. Gunasekara, which was, published in 1938.Of all directories, the most detailed and scientific one was the Catalogue of Palm Leaf Manuscripts in the Library of the Colombo Museum, Vol. 1 that was prepared by W.A. Silva from the Government Press in 1938. This book is the sixth in a series of list Museum palm leaf Book Collection.

Mr. K.D. Somadasa has also compiled a catalog of palm leaf books by referring palm leafs where the placed in the temples of Sri Lanka. Nevertheless, it was considered as only list of books. However, not considered as detailed bibliography. Nilantha Hettige has compiled a detailed bibliography of the Colombo National Museum Library Books, which can be considered as the Seventh Directory (Hettige, 2011).

There are also a large number of palm-leaf books in private possession. Some of the palm-leaf books have already been lost or destroyed as no action has been taken to preserve the temples and books in the possession of the people. For covering, these palm leaf a comprehensive bibliography or indivual bibliographies have to be compiled based on their contents and organization.

Many a palm leaves have been taken to foreign countries and the core problem that can be identified that the reader has to face challenges when study about palm-leaf. There is a lack of adequate information about them. Therefore, it is important to conduct a bibliographic study or survey on palm-leafs. Creating printed directories is easy, but making catalogs for palm-leaf books is a difficult task. The reason for this is that bibliographic information has to be obtained by flipping through copies of palm-leaf books.

Conclusion

Therefore, actions have to be taken for the bibliographic control of palm leaf literature in Sri Lanka. One-step is the compilation of bibliographies covering these palm leafs. Students both undergraduate and postgraduates should be encouraged to do studies and research on palm leaf literature. Since compilation of annotated bibliographies is not suitable to cover palm leaf, it is much better to compile bibliographies covering basic bibliographic elements of palm leafs. The annotation may vary from the author-to-author or interpreter to interpreter especially the religious literature and work so that commencing and ending paragraphs with other bibliographic and physical elements can be used when compiling these bibliographies. It is much better to use ICT for compiling these bibliographies. However, the following a proper bibliographic standard is much better. When considering the palm leafs research and management, it is much better to consider the preservation of the originality, information security and safety, information organization and transfer.

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The Library Automation through the Cloud Computing server: Based on Digital Ocean Cloud server

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Abstract

The purpose of this study is to present a model for library automation through the use of the Digital Ocean Cloud Server System (DOCSS) cloud computing. Now a day's Technology is growing fast Cloud computing is a new technology model for IT services which many businesses and institutes are adopting. It avoids locally hosting multiple servers and equipment and constantly dealing with hardware failures, software installations, up gradations and compatibility problems. For many organizations, cloud computing can simplify processes and we can save time and money by using cloud. This article focuses on the process of automating libraries using cloud computing servers. A physical server costs a lot of money for equipment and maintenance services. This method can be easily used for libraries with limited funds and minimal facilities. This cloud server is an easy way to get the most out of library automation for a small fee, and this module formally discusses current usage.

Keyword: Library Automation, Cloud computing Server, Digital libraries, Cloud coputer

Introduction

Cloud computing is a new IT service delivery strategy that many businesses and consumers are adopting. Cloud computing has the potential to change the way systems are constructed and services are delivered, allowing libraries to expand their reach. Cloud computing is internet-based computing in which users pay for software, infrastructure, platform devices, and other resources and hosting on an earn basis via virtual shared servers. In the cloud computing concept, all of the information that a digitized system has to provide is given as a service. Users can use the services on the "Internet Cloud" without any previous knowledge of how to manage the resources involved. Cloud computing is defined by the Gartner Group as "a type of computing in which massively scalable and elastic IT-enabled capabilities are offered as a service to external clients via Internet technologies. "Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources, networks, servers, storage, applications, and services} that can be rapidly provisioned and released with minimal management effort or service provider interaction" National Institute of Standards and Technology {NIST,2018}.

Cloud computing allows you to isolate the process of constructing a service provisioning infrastructure from the library of end-user services. People can use cloud computing to share dispersed resources and services from multiple companies or places. Cloud computing uses a

network to share dispersed resources in an open environment. It is an internet-based virtual pool of computing resources. People can use cloud computing to share dispersed resources and services from multiple companies or places. Many businesses, such as Amazon, Google, and Microsoft, are speeding up their development of Cloud Computing systems and upgrading their services in order to accommodate a bigger number of customers. The three components of cloud computing are "application," "storage," and "connectivity." Each sector has a distinct function and offers a variety of products to organizations and individuals all around the world. Computers are used by libraries to run services such as Integrated Library Management Software (LMS), Automation, websites, portals, digital libraries, and institutional repositories, among other things. These are either maintained by the computer staff of the parent organization or by the library staff. It necessitates an investment in infrastructure, software, and personnel to maintain these services, as well as backup and update when new software versions are released. Without the assistance of IT employees from inside or outside the company, library professionals who are not educated in server maintenance find it impossible to do some of these tasks. Now that cloud computing has become a new term in the library world, it's a gift in disguise since it allows libraries to offer various ICT services without much difficulty because third- party services will maintain servers, do upgrades, and backup data.

Objectives

This article explores presenting a model for automating libraries through cloud computing services. It will look at how library automation works through this cloud computing method and how it is used, further explores the importance of that method of cloud computing system use to the library field today.

Methodology

In this study, Library Automation outlines the main requirements of the digital ocean cloud Server use of creation process and its application. There are basic requirements for automating the library through cloud computing. This requires an internet connection, a minimal budget, and trained human resources, as well as a Google account and a digital ocean cloud server account. The above factors are required to access an account on the Digital Ocean Cloud Server. The installation of the Linux version of the operating system took place after selecting the desired image before installing the Koha automation software. It was selected by the Debian operating system. But there are several Linux operating systems on this server for this purpose and we can choose the operating system we want. This methodology does not include the complex steps required to install the operating system. An appropriate plan was then selected to build a virtual machine on the digital ocean cloud transport server for library automation for library needs. This virtual machine was built on AMD CPU, NVME SSDS, and data transfer

components in the face of existing financial provisions, and the Koha software was installed on the computer. It purchased the domain name for publication, added it to the Koha URL, customized it, and published it. Finally, the Koha automation software is designed to be easily used by the library staff and is usually published as a user interface.

$6/mo	$12/mo	$18/mo	$24/mo	$48/mo	$96/mo
$0.009/hour	$0.018/hour	$0.027/hour	$0.036/hour	$0.071/hour	$0.143/hour
1 GB / 1 AMD CPU	2 GB / 1 AMD CPU	2 GB / 2 AMD CPUs	4 GB / 2 AMD CPUs	8 GB / 4 AMD CPUs	16 GB / 8 AMD CPUs
25 GB NVMe SSDs	50 GB NVMe SSDs	60 GB NVMe SSDs	80 GB NVMe SSDs	160 GB NVMe SSDs	320 GB NVMe SSDs
1000 GB transfer	2 TB transfer	3 TB transfer	4 TB transfer	5 TB transfer	6 TB transfer

Figure 1: Price of Virtual Machine with their Component

Results and Discussion

In the case of cloud computer - based automation for libraries, it's useful to create and publish software at low cost, and to operate without a physical server. Although libraries do not have physical servers, any library can do this at minimal cost. In this automation the bulk of the cost of the library is spent on the physical purchase of servers. Thus, any library can use this cloud computing based automation system to minimize cost impacts through this system. Library staff can save their time, easily to maintain, easily save on automation and expensive cost of physical servers. This makes it easier for library staff to understand and maintain the system.

Conclusion and Recommendations

This Cloud computing system base library automation system can be used not only for library automation, but also to create attractive websites for libraries, digital library creation and to promote library functions and services. One of the main advantages of this process is that you do not have to spend a lot of money on a physical server. Here's how to put one together for use with your computer. Five cloud computing systems in each library division can be used to create quality library services, even in libraries with minimal facilities for automation and other functions. Therefore, the authorities should pay attention to the use of such IT strategies by the relevant stakeholders in libraries.

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An Analytical Study on the Role of Legal Deposit Law in Sri Lanka in Building a National Collection

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Abstract

Legal Deposit Law is enforced in almost every country with the aim of establishing bibliographic control of publications in a particular country and the formation of a national collection associated with it. This research concern that the legal deposit law in Sri Lanka plays a sufficient role in building the national collection. The main purpose of this study is to study about role of the legal deposit law of Sri Lanka. Other objectives are to study the legal deposit law in Sri Lanka and its origin, to study the systematic development of the legal deposit law, to identify the composition of the legal deposit collection. In this case, qualitative research methodology has been used and the case study method has been used as a research method. The authority of the legal deposit law in the country is National Archives of Sri Lanka. Therefore, the function of the registration section of books and newspapers of the National Archives of Sri Lanka has been studied. Data were collected through ordinances related to the legal deposit law, legal statutes and statistical reports, observations and interviews. Data analysis was performed by reporting and summarizing. The legal deposit law of Sri Lanka places the responsibility of the publishing industry entirely on the printer. There are instances where printers did not provide copies. It is clear that a complete national collection will not be created by not giving copies. It was found that non-print media are not covered by the Legal Deposit Law. Accordingly, the objectives of the legal deposit law in Sri Lanka should be amended and re-interpreted. Also it should focus to legislate inclusion of non-print media for the coverage of publications under the Legal Deposit Law of Sri Lanka and to make provisions for the implementing of an electronic deposit collection.

Keywords: *Legal Deposit Law, Legal Deposit Collection, Deposit Copy, National Collection, Deposit Libraries*

Introduction

The people produces knowledge and information. They are recorded in written, printed, and audio-visual formats. It is based on existing knowledge and information. Therefore, it is essential to provide information on existing knowledge and information for the learners. In that case, every publication that is published in a particular country must be gathered in an authorized organization or more. Legal deposit law is enforced in almost every country. Legal Deposit Law can be defined as the legal stipulation that a deposit must be made in an institution authorized by the law to be published in a particular country. Accordingly, under the legal deposit law, the objective is primarily to build a complete national collection, thereby ensuring the present and future security of a country's intellectual heritage. Accordingly, the legal deposit law of Sri Lanka dates back to the newspapers ordinance no. 5 of 1839. Department of Archives

of Sri Lanka was its chief authority. It is important to focus the legal deposit law needs to be enacted plays a sufficient role on building the national memory.

objectives

The main purpose of this study is to study about role of the legal deposit law of Sri Lanka. Other objectives of this study are to study the historical background of the establishment of legal deposit law in Sri Lanka, to study the systematic development of legal deposit law, studying about maintaining of deposit collections, organization and usage, identifying weakness associated with legal deposit law, and identifying new trends related to legal deposit law.

Methodology

In this case, qualitative research methodology has been used and the case study method has been used as a research method. The authority of the legal deposit law in Sri Lanka is National Archives of Sri Lanka. Therefore, the function of the registration section of books and newspapers of the National Archives of Sri Lanka has been studied broadly. Data was collected by referring ordinances related to the legal deposit law, legal statutes, documents, statistical reports, etc. Interviews and observations were conducted. Data analysis was done by recording, summarizing, and tabulating the data obtained as appropriate and, when necessary, charts, diagrams are also used.

Results

The Department of National Archives is the foremost institution responsible for the collection of legal deposits in the country. Legal deposit law in Sri Lanka is based on three main constitutions. Namely, the Newspapers Ordinance No. 5 of 1839, the Publishers' and Printers' Ordinance of 1885 and the Printing Press Act No. 16 of 1902. Although, despite the Newspaper Registration Act is in force, newspapers have sprung up without registration in the island. Furthermore, published information contained in the newspapers are not being scrutinized by a scientific and comprehensive information service. Some newspapers are registered as magazines under the Printers and Publishers Ordinance. Also, it has not been possible to take legal action against delays in the printing of newspapers. Although the Publishers' and Printers' Ordinance of 1885 required the registration of all books printed in this country, a large number of books were not registered annually. By this Act the responsibility of the publishing industry has been transferred entirely to the Printer. The Director of National Archives does not have the power to verify the information provided by the printer and has to rely solely on the information provided by the printer. Periodicals are also registered as books. Also, books printed by some Sri Lankan authors abroad cannot be registered in this country under this Ordinance. Five copies to be deposited. Books, periodicals, and newspapers were identified as

the means of publication covered by legal deposit law.

Discussion/ conclusions

The purpose of the legal deposit law in this country has not been formulated in accordance with the requirements of the Legal Deposit Law and the purposes for which it is intended. As well as it has not been formulated in accordance with dynamic challenges and future uncertainty. Based on the above results, it was identified that there were serious shortcomings in the implementation of the Newspaper Ordinance No. 5 of 1839. Although any law must be amended from time to time according to the social, economic, political and cultural changes of a country, the 1885 Ordinance has remained unchanged for 121 years. Although the 1885 Ordinance was amended in 1951, 1976 and 1983, no attempt was made to change the planning structure established in 1885. This Act was passed in 1902 and has been in operation for 104 years without any preliminary amendments. This is still being used as a colonial act as the basic structure of the Act remains unchanged after the few amendments made in 1951, 1955 and 1933. There were also instances where printers did not provide copies, it is an obvious to address that a complete national collection would not be created by not giving copies. It was found that non-print media are not covered by the Legal Deposit Law.

Recommendations

It should be amended and re-interpreted the objectives of the Legal Deposit Law in Sri Lanka. Action should be taken to reduce the number of copies required to be provided under the Legal Deposit law is essential. Publishers might face financial problem when they tend to produce expensive publications. Therefore, the study able to pointed out that the above condition can be minimized if reduced number of 3 or 2 copies. Although the number of copies should be reduced, the copies should be distributed in such a way that the objectives of the legal deposit law can be achieved. It is worth preparation of provisions regarding the inclusion of non-print media in the coverage of publications. Accordingly, action should be taken to acquire the audio-visual and all the electronic media which are being published in Sri Lanka. Strengthen legal deposit law against printers who do not provide copies of deposits is necessary. It should be prepared of procedures required to implement an electronic deposit. In this age of scientific and technological revolution, it would be a blessing for all Sri Lankans to be able to electronically preserve the writing heritage of Sri Lanka.

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Current Status and future challenges of the conservation and preservation procedure of national archives in Sri Lanka.

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Abstract

The evidential history of the Sri Lankan Archives goes back to the 16th century. Because the Portuguese when they arrived in Sri Lanka, they maintained an indigenous system for record-keeping. And then the Systematic Archives keeping was introduced by the Dutch who occupied the maritime districts in Sri Lanka. After the British period, they improved the records and archives management system in the early British period (archives.gov.lk, 2021). "Archival Sources can be Manuscripts, Documents, Records (Including electronic records), Objects, Sound and Audiovisual materials or other materials., An archive is "an organization that collects the records of Individuals, Families or other organizations" (research.library.gsu, 2020). The Department of National Archives is the peerless memory store of the nation. They have the oldest documents from 1640 till the present. Therefore, this staff has more responsibilities to preserve and conserve this ancient information for future betterment. The preservation team is facing some challenges. This study is based on the present conservation and preservation procedure and techniques. Identify what are the oldest documents they are more concerned about. Introduce the conservation and preservation procedure and techniques of records, and identify what are the Challenges and Conclusions, Recommendations of the preservation staff about the preservation and conservation procedure. The method of the study is an explorative survey of the Archival Sources conservation and preservation and the data collected through a site visit, discussion followed by the observation both participatory and non-participatory. The time has come to stress and pay much attention to the area of Archival Sources conservation and preservation in the National Archive and how they preserve and conserve for the use of future generations.

Keywords*: Department of National Archives, Archival Sources, Conservation and Preservation, Conservation and Preservation Techniques*

Introduction

When pursuing the Department of National Archives, the vision and mission are focused on a few words, such as Repository, Records, Conservation, and Preservation. The vision of the archives department is "Systematic management and conservation of public records as a part of National Cultural Heritage." And the mission is a very huge one. "Implementation of the National Archives Act No. 48 of 1973 and its subsequent amendments and preparing rules and regulations relating to the accrual of Public Records and unique Private Collections as permanent deposits. Management and Preservation of traditional (Palm leaf and Papers) and non-traditional (Digital) government records based on relevant stipulated rules and regulations. Receive Newspapers and Publications for legal deposit in terms of the relevant laws, making

facilities to retrieve information from its holdings for use by the government for its administrative processes and research purposes by the public"(Department of National Archives, 2020) As the memorable place in the nation, National Archives has been stored very remarkable and valuable Repositories. There are 06 repositories in this Department, with documents, if lined up, will extend to 22 km. Primary and secondary documents of the Dutch and British periods, newspapers, and the post-independent era records are deposited in these repositories. Those are,

- Dutch period records from 1640 to 1796

- British period records from 1796 - 1947

- Important documents of all government institutions after 1948

- Newspapers published in Sri Lanka, since 1832

- Printed publications and books since 1885

- Collection of historical, hand written documents

- Collection of confidential documents

- Collection of private documents

- Collection of maps

- In addition, the legal collection of the Department has been deposited in two repositories.

When considering the prior-independent era records researchers must seek how they are Preserve and Conserve these records for future betterment and how they are giving information services using these records. And what techniques are used by them for preservation and conservation? Caroline Williams (2006) says that to conserve and preserve valuable records must need space. "The archive service's accommodation needs to be able to cater for the successful implementation of its three core aims of selecting, preserving, and making available archives for the long term. However large or small your provision, the space you occupy must serve the disparate needs of staff and administration, internal clients and/or public users accessing the material, and of the archives themselves." The department of national archives is home to ancient valuable information resources. Furthermore, he says " There are … two fundamental keys to success: … (1) to protect the archives against all forces which might otherwise harm them: in particular fire and water, a physical or chemical change resulting from a polluted or under-regulated environment; dust, mold and vermin; theft and vandalism; and (2) to promote also the work and well-being of everyone (staff and public alike) going about

their business there." Hence the goal of the study is to find the real factors behind the conservation and preservation procedure of the Dutch Period and British period records. This study covers four other objectives

- Reveal the conservation and preservation process and techniques.

- Show the old situation of the process.

- Examine the present situation of the process.

- Identify what are the challenges and conclusions, recommendations of the preservation staff.

According to vocabulary.com (2020) Preservation is "The activity of protecting something from loss or danger" Therefore this is time to pay attention to the Preservation and Conservation Procedure of Old documents which are stored in the department of National Archives.

Problem Statement

Statement of the problem from the past to the present day, there have been individual reasons for the procedure of Conservation and Preservation of the Dutch and British period in the Department of National Archives. The preservation team is facing some challenges. Therefore, that is the time to give some attention to how they are doing Conservation and Preservation in this time frame.

Research Objectives

Main Objective

- To identify how is the present conservation and preservation procedure and techniques

Other Objectives

- To recognize what are the oldest documents they are concerned more to preserve.

- To Examine the importance of the conservation and preservation unit.

- To identify what are the Challenges and Conclusions, Recommendations of the preservation staff about Dutch and British Period records preservation and conservation procedure.

Research Methodology

As this research covers exploratory research content, preservation process, ethical attitude, the

qualitative research design was adopted. Primary Data is collected using Interviews, Observation and Secondary data will be collected using articles of research journals and the dissertation in the subject area.

Results and Discussion

As mentioned above there are large repositories that have been situated about Dutch and British period records in the Department of National Archives. But in this study researchers couldn't go to the repositories to search for those, based on this Covid-19 pandemic. It is a limitation of this study. However, to fill this limitation literature was helped.

Portuguese Archives (1505-1640)

"When Portuguese captured the Sri Lanaka created valuable land records about maritime districts during their administrative era. These formed the basis of their "thombos" and "forals" (Quit-Rent Registers). Their thombos later became the foundation and remarkable of their revenue collection. It should be noted that none of the Portuguese archives in Sri Lanka have survived to expect the copies of thombos and forals for the years 1614 and 1618 obtained from Lisbon" (Wimalarathne, 1978). Then should pay more attention to Dutch Archives (Records) and British Archives.

Dutch Archives (1640-1796)

If you consider the Dutch Archives, they belong from 1640 to 1796. It was a continuous series that commenced from March 1640, It started with the minutes of the Military council held on a warship in Galle harbor a little while before the fortress was attacked. "There are approximately 8000 volumes of which 5000 belong to the central Dutch Government which operated from Colombo and the rest to the provincial unit the Galle commandment." (Wimalarathne, 1978). The Dutch Land records belonging with head and land thombos represent their administrative skill inland revenue and those matters as well. Moreover, Sri Lanka to Batavia and Holland is also a rich source of identification of their rules and other visionary and missionaries.

The following indexes are also available to facilitate the use of Dutch Archives.

- Acts of Appointment of Company Servants; 1750-1781 A.D.,

- Acts of Appointments of Native Officials, 1756-1796 A.D.,

- Dutch Head, Land and School Thombo indexes

- Dutch Last Wiils

- Dutch Political Council, Colombo (Digest of Resolutions) 1644-1796 A.D.,

- R.G. Anthoniz, Indexes to Dutch Political Council Minutes, 1656-1796 A.D.,

- Dutch Plakaats – A chronological guide

- Index to Lascarin Rolls

British Archive (1796-1947)

The records of the British Administration (1796-1947) are the largest collection in the Archives. As seen from figure No.02 the largest number of fonds or archival groups are attributed to this collection and still, there are many more to be accrued from the various departments created during the British Period. Moreover, there are records of some of the government agencies which are defunct at present such as the senate and offices of the Fiscal abolished in 1974 under the reorganization of the administration of justice.

As these records collections are unique, British colonial policy and its impact on Sri Lanka cannot be considered complete without utilizing and referring to the above fonds at the National Archives of Sri Lanka. (Wimalarathne, 1978).

As mentioned, methodology, collected data in order to

- Technical Branch

- Research Room

- Public and Private Archives Administration Division in the department of National Archives. However, there are some ordering level processes in the above divisions when acquiring documents. If concerned this process should be focus in order to

- Public and Private Archives Administration

- Research Room

- Technical Branch

You can identify this process in the chart below.
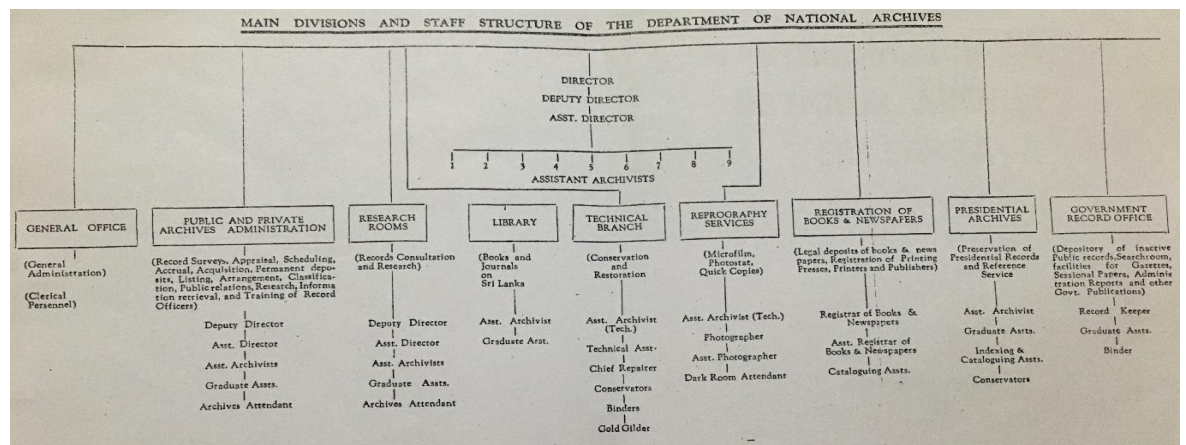
Figure No: 01Source: (Wimalarathne, 1978)

But in this study, the main focal point is the Technical Branch (Conservation and Restoration). Hence, if concern these two terms of the Conservation and Restoration, "The preservation and conservation of records is the principal function of an archive. It preserves records so that they would be safely available for coming generations. Secondly, It conserves them against physical damage from Fire, Water, Rodents, Dust, Mildew, Insects, Pilfering, Mischief and other destructive agencies, Human as well as Nature and Animals" (Wimalarathne, 1978). "Restoration is the act or process of returning something to its original condition by repairing it, clearing if" (Merriam-Webster).If you consider the above definitions the conservation and preservation procedure and restoration is a huge process in the Department of National Archives. And also, this division is a main focal point as well. Hence, focus the above-mentioned figure no; 01, There are as follows, Assistant Archivist, Technical Assistant, Chief Repairer, Conservators, Binder, Gold Gilders. There are more responsibilities for them. To conserve and preserve the oldest documents which were in the department of National Archives. However, the functions have been divided into Six main divisions as follows,

- Preservation and Conservation of Public and Private Records.

- Administration of Public and Private Records.

- Editing and Publication of Public and Private Records.

- Promotion of research in the spheres of History administration, Culture and Literature of the country.

- Acting as a legal depository for the publications produced in the country.

- Issuing extracts from the documents preserved in the archives, duty certified and authenticated which are admissible in evidence in any court law (Wimalarathne, 1978).

- If, consider (d) and (f) statements are very fitting to this study. Because this study is going with conservation and preservation procedures.

Conservation and Preservation process of the records in the Department of the National Archives.

When considering the Conservation and Preservation process of the records, as has been explained early, it is a huge concept. The team of Conservations is going to the repositories two weeks in the month. And they get a total condition summary of these records. But sometimes if they capture some record immediate conservation, record keepers are taking fast action to inform preservation division. And then that keeper fills some form. (It is called nature of the

record in prior conservation.) And after the fill, send those records to the preservation division. Then there is Assistant Archivist, Technical Assistants. They checked first and then there were the chief repairer and conservators, Binders and Gold Gilder. This is a flow system. If considered after they receive those documents to the Assistant Archivist and Technical Assistants. They are divided based on some responsibilities. It should be noted, if a conservator gets some responsibilities about some records he or she has to look after and do the conservation and preservation process until it will be sent to the repositories or previous place.

- So, if they get one damaged record, first they check the Ph value, and the nature, condition of these pages. If these pages are fragile the Ph value is very low. And also, these pages contain high quantities of acid. Then based on this recognition, the relevant Archival Conservator decided to do deacidification of these pages. Before doing this process the conservator faces a very critical moment in the conservation and preservation procedure.

- Search if there are soluble or blurring chemicals on these papers.

- Recognize deeply about the content of the record. (If there are any physical damage from fire, water etc.,)

After clarifying these criteria in 100%, if the above steps were positive, the Conservator would have to use some of the preservation tools. First of all, conservators try to remove and repair bespattered and crannied places.

For example, if there are pencil marks, they can use an eraser. But there are crannied places where they replace silicon papers. After removing all of these marks and replacing the damaged place the paper. The paper has been covered by using Silicon Paper. (Actually, the conservator is sticking this silicon paper, they are using special glue. It is called CMC. This should be mentioned, in this overall preservation process, the preservation tools that can be recycled. Otherwise, if they use eternal tools anyone can preserve that particular record.) The quantity of Silicon papers and Tissues would be changed as the size of paper in the record. And also, the preservation procedure of these Dutch and British period records is very complicated. Because there are many more pages in one record. Therefore, conservators have to search and do the same work for one-by-one pages. That is kind of intensive work. Conservators have to focus on this in a clear mind. After finishing this process, the papers are suitable for the deacidification process. The preservation team is always concerned about relevant temperature and relative humidity. Because tropical countries have to be concerned about those criteria. But if one conservator is doing the deacidification process, he has to be concerned with time, and his availability at the office. For example, if the deacidification has started, the conservator can't get any leave. If He or She gets leave he has to assign his responsibilities to any other

officer. But in the preservation rules, as mentioned below If a conservator gets responsibilities for some records, he must work with these records from start to end of the preservation process.

First, to do deacidification the one-by-one papers are stored in angle level trays. These trays are situated in one rack. They have 10-15 trays. But the main fact is to deacidify one record they have to use more racks. That's why the preservation process is most difficult. After drying, these papers have to be collected and bound. There are binders in the Preservation section. They are binding damaged records. But at this time conservators who got responsibilities for these pages or records decided which binding type is more suitable for this record. There are a few binding types. It is decided as to the nature and size of the records.

One binding type is sewing by using thick code, and the other one is pasting. There are two shapes of binding. Sometimes the binding will show as a curve. Another type will show the square type. It will decide based on the record size and nature. However, the binding procedure of Dutch and British period records is not a simple method. It is a big responsibility. Because the binding method is decided based on the duration of the particular record.

Binding is not an ending process in the preservation procedure. After the preservation of these records, the preservation team has to give a finalized report as the beginning of the preservation process. This is the final report of the preservation process. This form includes how many pages? Now available in the record? And other necessary physical descriptions also have to be added. The date is to be handed over to the relevant section and signature. And then they can cross-check that form which filled the beginning of the preservation and with the ending preservation report. Finally, the relevant conservator has eternal responsibility about that handed over records and he have to follow these records and have to concentrate on conditions and be able to measure and predict the period of the durability of a record. Therefore, only one special thing should be noted, The Dutch and British period records preservation procedure is not only a short-term process. It is an eternal process for Our future sustainability. This study focuses on some other objective that is to identify the support to conservation and preservation of Dutch and British period records from other divisions in the National Archive. Therefore, the next consideration is the Search Room. It is one of the major divisions for reference sources in the National Archives. It gives Information Sources for different kinds of research based on major rules and regulations. As summarized, the Search Room is a service center for library management perspectives.

However, as a major icon in the National Archives, the search room staff have valuable and useful ideas about the Conservation and Preservation division. Based on the information materials of the search room and synthesizing of their ideas and opinions, preservation and conservation procedure is very useful and major work in the Archival department and it is very

useful to every division which is situated in that particular department. As well as there should be considered all of the repositories, mainly one opinion given by the search room staff. There are some obstacles. Such as, they have no sufficient staff members in the preservation division. Because of this, there are huge records set as mountains that are to be preserved. But still, the Department of National Archives and relevant governors are not concerned about that kind of issue. There are various British records reserved for research aspects in the Search Room.

Blue Books, Hansards, Admin Reports, Parliament Acts etc., They are not issuing Dutch records for readers. By this Search Room they are giving services for Readers as follows.

- For educational information needs

- For university learning and teaching information needs

- Personal information needs

- Commercial information needs

However, they are always supporting the preservation section indirectly. When readers come, they have given some tools to them. For example, Pencils. Because the men are real enemies of Printed materials. That is an indirect preservation technique and support to the preservation division from Search Room. And readers can't get photographs of that information. The reason for that regulation is to reduce the damaging of records. But as an answer for this problem, the search room is giving soft copies which need pages of records as images. But They cost Rs.50.00 for one image. When the reader needs to get more information from the documents which are not available in the search room, the staff give, fill out an information sheet (It is called DUMMY) for the reader, then some work in the search room goes to the repository and gets back to him. These are the preservation techniques from Search Room. And further, they suggest the preservation procedure of the Preservation division has to be fast. To do this, governors and the Archival Department have to recruit human resources with good practice of Archival Preservation. And also, they said to protect the first copy of the record, all the staff members in the Archival Department have huge responsibilities about Dutch and British period records. When considering the public and private archives administrations, there are few works with regards to that. Those are Record surveys, Appraisal, Scheduling, Accrual, Acquisition, Permanent deposits, Listening, Arrangement, Classification, Public Relations, Research, Information Retrieval, and training of record officers. There are Deputy Director, Assistant Director, Assistant Archivist, Graduate Assistant, Archives Attendant as Staff members. There is a main purpose related to this division. Those are Record Management and Acquire Records. However, there is a huge procedure to do the above tasks. "The permanent preservation of records and the administration of records are inter-related activities" (Wimalarathna, 1978). For proper administration of records, the director of the National Archives is vested with powers to

have access to any place of deposit of public records, (vide section 9 of the N.A.L. 1973, p.4). All the heads of the public officers are expected to keep in their safe custody, the public records selected for transfer to the National Archives. In keeping with the modern methods of records administration, the law provides that, under certain conditions, all public records not less than 25 years old which are selected for transfer, should be transferred to the National Archives (Vide section 9d, N.A.L. 1973 pp.4 & 5). But it should be noted that some categories of public records are exempted from the 25-year rule and the more conservative procedure of 100-year rule is applied as these records are governed by other enactments which are required for continuous use in the conduct of public affairs. Their preservation is well ensured under the respective enactments (Wimalarathna, 1978). For example, if some institutes have Dutch period and British period records, they have to transfer these records to the national archives. Otherwise, at least public officers in particular institutes have to build up a preservation procedure or record room to keep it in safe mode. But, considering the above Archival rule they better transfer these records to national archives for future betterment. While acquiring the records those staffs are going to do an Appraisal of records. (Senior archivist, Preservation officer, etc.,) And they identify the records that go to which category? They use a life cycle to divide these records.

Figure No: 02 – Life Cycle of the Records
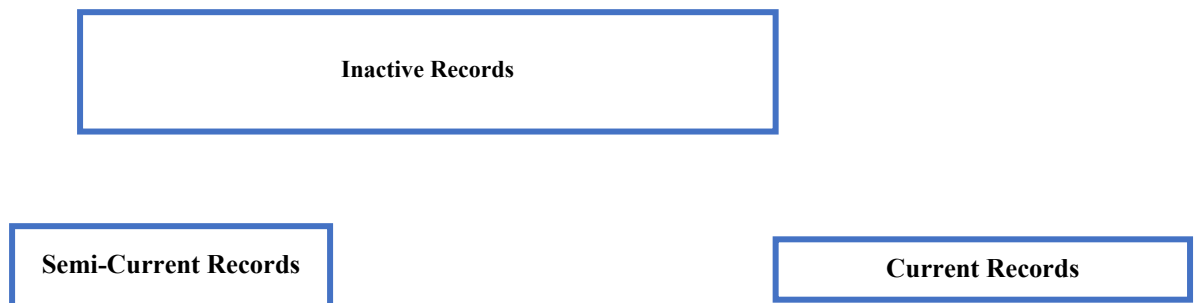
Source: archives.gov.lk, 2021

If there were high important records, based on the archive rules the archives team acquired those into the National Archives. After the acquisition, they select which records need to be preserved? At that time, they needed the help of a preservation team. Not only this time but also when acquiring records and till disposal of records, they need help from the preservation team. End of the above discussion the Public and Private Archives Administrations division mentioned there should be more manpower to the preservation section and this preservation process must be efficient based on the quantity of the acquired records.

Conclusion

The findings of this study revealed that the preservation and conservation procedure have some obstacles in the department of the National Archives. The Human Resources is very low in that

preservation and conservation unit. According to Wimalaratne (1978) the main function of the Archives Department is to preserve valuable historical records and safely give them to the coming generations. Therefore, it is a timely matter to do fast preservation procedures parallel with rapidly increasing technology equipment. To save the first copy of that historical record is the main and exclusive objective of the department of national archives.

Recommendations

- Should be increased in the recruitment of conservators.

- Should make a proper recruiting method for it.

- It is important to add preservation as a subject of O/L and A/L and also University Level. (For an example Specially Library and Information Science, History, Archaeology, and Science Subjects)

- Should pay added attention about the preservation unit from top management of the department of the National Archives and the Government.

- And this should be noted, make proper arrangements for the preservation staff to face national and international level workshops, seminars, training minimum twice per year.

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Objectives

The main purpose of this study is to study about role of the legal deposit law of Sri Lanka. Other objectives of this study are to study the historical background of the establishment of legal deposit law in Sri Lanka, to study the systematic development of legal deposit law, studying about maintaining of deposit collections, organization and usage, identifying weakness associated with legal deposit law, and identifying new trends related to legal deposit law.

Methodology

In this case, qualitative research methodology has been used and the case study method has been used as a research method. The authority of the legal deposit law in Sri Lanka is National Archives of Sri Lanka. Therefore, the function of the registration section of books and newspapers of the National Archives of Sri Lanka has been studied broadly. Data was collected by referring ordinances related to the legal deposit law, legal statutes, documents, statistical reports, etc. Interviews and observations were conducted. Data analysis was done by recording, summarizing, and tabulating the data obtained as appropriate and, when necessary, charts, diagrams are also used.

Results

The Department of National Archives is the foremost institution responsible for the collection of legal deposits in the country. Legal deposit law in Sri Lanka is based on three main constitutions. Namely, the Newspapers Ordinance No. 5 of 1839, the Publishers' and Printers' Ordinance of 1885 and the Printing Press Act No. 16 of 1902. Although, despite the Newspaper Registration Act is in force, newspapers have sprung up without registration in the island. Furthermore, published information contained in the newspapers are not being scrutinized by a scientific and comprehensive information service. Some newspapers are registered as magazines under the Printers and Publishers Ordinance. Also, it has not been possible to take legal action against delays in the printing of newspapers. Although the Publishers' and Printers' Ordinance of 1885 required the registration of all books printed in this country, a large number of books were not registered annually. By this Act the responsibility of the publishing industry has been transferred entirely to the Printer. The Director of National Archives does not have the power to verify the information provided by the printer and has to rely solely on the information provided by the printer. Periodicals are also registered as books. Also, books printed by some Sri Lankan authors abroad cannot be registered in this country under this Ordinance. Five copies to be deposited. Books, periodicals, and newspapers were identified as the means of publication covered by legal deposit law.

Discussion/ conclusions

The purpose of the legal deposit law in this country has not been formulated in accordance with the requirements of the Legal Deposit Law and the purposes for which it is intended. As well as it has not been formulated in accordance with dynamic challenges and future uncertainty. Based on the above results, it was identified that there were serious shortcomings in the implementation of the Newspaper Ordinance No. 5 of 1839. Although any law must be amended from time to time according to the social, economic, political and cultural changes of a country, the 1885 Ordinance has remained unchanged for 121 years. Although the 1885 Ordinance was amended in 1951, 1976 and 1983, no attempt was made to change the planning structure established in 1885. This Act was passed in 1902 and has been in operation for 104 years without any preliminary amendments. This is still being used as a colonial act as the basic structure of the Act remains unchanged after the few amendments made in 1951, 1955 and 1933. There were also instances where printers did not provide copies, it is an obvious to address that a complete national collection would not be created by not giving copies. It was found that non-print media are not covered by the Legal Deposit Law.

Recommendations

It should be amended and re-interpreted the objectives of the Legal Deposit Law in Sri Lanka. Action should be taken to reduce the number of copies required to be provided under the Legal Deposit law is essential. Publishers might face financial problem when they tend to produce expensive publications. Therefore, the study able to pointed out that the above condition can be minimized if reduced number of 3 or 2 copies. Although the number of copies should be reduced, the copies should be distributed in such a way that the objectives of the legal deposit law can be achieved. It is worth preparation of provisions regarding the inclusion of non-print media in the coverage of publications. Accordingly, action should be taken to acquire the audio-visual and all the electronic media which are being published in Sri Lanka. Strengthen legal deposit law against printers who do not provide copies of deposits is necessary. It should be prepared of procedures required to implement an electronic deposit. In this age of scientific and technological revolution, it would be a blessing for all Sri Lankans to be able to electronically preserve the writing heritage of Sri Lanka.

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Digitization Tools and Techniques: An Overview

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Abstract

The study provides an outlook on the various digitization tools and techniques for library materials - manuscripts, printed documents and archiving materials. The term "digitization" was coined in the late 1990s. Many libraries still do not make use of this useful technique at the root levels for the benefit of the research user community. To overcome this hurdle, here the researchers have presented the digital initiation in India at national level in addition to the relevant tools, software, techniques, file formats, storage and other techniques.

Keywords: Digitization; digital preservation; digitization initiation

Introduction

Digitization provides a solution to manuscripts problems such as conservation, preservation, accessibility, uniqueness, access, ICT (Information Communication Technology), as also demand and relevance to funders and space: the first and most vital reason being that the manuscripts start deteriorating after a certain period of time at a rapid rate. Current ICT techniques using open source platforms offer to create digital libraries to meet the needs of knowledge science communities of biological, environmental, medical, engineering sciences and humanities. Two Decades ago digitization was a novel concept when there was a need for more infrastructure, staff skill, fund…; so it was found to be a daunting task. However, the trend now slowly changed in a decade and presently a student of sixth standard is using electronic devices like smart phone, tablets and laptops. Nowadays almost each and every family from lower middle class student to research scholar level has started using smart phones and laptops for all their needs. This situation of digital technology has simplified sharing of information, video clippings, and pictures instantly to unknown persons from any part of the world. Almost we are living in a digital world where without technology leading a life is not so easy. Digitization is no longer a mere buzzword; it has become hard reality in the library world. There are three types of e-devices to digitize; "using scanner, digital camera and the latest smartphone". For transmitting any piece of information-either text, audio or video we have to select the proper digital device. If it is a paper, manuscript or document in a good condition, free from legal issues then a smartphone could be used to disseminate information instantly with the help of apps. For a research community we librarians have to present digital information using Digital Camera or Scanner in a simple way using a structured digitizing method.

Review of Literature

Kaur (2015) discussed the need for digitization of manuscripts with reference to Punjab university manuscripts and Punjab Digital libraries which started in the year 2004. Sageer and Francis (2015) identified different ways and methods for developing digital libraries for endangered library materials and the users attitude about the method of usage of manuscripts. Sarasvathy (2014) drew attention to the role of Indira Gandhi National Centre for Arts (IGNCA) in digitization of library materials, particularly manuscripts. For digitization IGNCA used the standards of UNESCO guidelines and also Metadata for all the materials. Earlier IGNCA had microfilmed 2.5 lakh manuscripts with 20,600 rolls out of which 17087 had been digitized and 13803 rolls duplicated. Rafiq and Ameen (2013)4 provided a survey of fifty-five university libraries and their activities on digitization in Pakistan. The results found that the digitization activities were still at preliminary level. Londhe et al (2011) focused mainly on technical requirements and processing method for digitization of manuscripts adopted in Jayakar library, University of Pune. This work explained the various technical stages to adopt for digitization of manuscripts and the metadata generation. The study found the importance of software for image capturing and processing. In South Asia the largest digitization initiative was launched in India with the biggest coverage of twenty-one scanning centres, inaugurated by Dr. A.P.J. Abdul Kalam. It is part of a Million Book Project. Along with this; digitization of thesis and dissertations, Indian Journals, digitization activities of NMM & IGNCA were evaluated by Anup Kumar Das in his dissertation in 2008. He observed that all these mega programs should be evaluated at regular intervals; training given and awareness must be provided to Indian researchers and scholars. He critically appraised NMM and IGNCA in conserving documentary heritage collection. The enormous output of research findings in Indian journals covering all the fields of knowledge should be made available at the international level with strong visibility. Kaur (2007) stated that preservation of digital materials for the benefit of the present and future generations is an urgent issue to address. The author explores various strategies and methodologies for preserving digital heritage materials; discusses issues concerning Digital Preservation (DP); enjoins upon the National libraries to take the responsibility for DP, with the cooperation of several stakeholders the Government, Publishers and Information Technology (IT) industry; gives an overview of initiatives taken by the National libraries world-wide, for preserving digital heritage materials; and discusses the Indian scenario. It also focuses on the pressing need for the national library, state libraries, museums and other libraries to work together more closely, to successfully organize digital archiving in the 21st century.

Objectives

Provide necessary technology and training for students and teachers to facilitate pleasure

reading and for informational text. Provide reading materials to students and staff. Utilize specific programs/applications for supplemental instruction in reading, math, science, and social studies. Provide supporting accessories for technology for staff and students.

Results

Digitization Initiation in India

The National Digital Library of India (NDLI) is all set to collaborate with several top digital libraries from across the world. Giving this information in a written reply in Rajya Sabha, Minister of State (HRD), Dr. Satya Pal Singh said that NDLI has entered into a Memorandum of Understanding with British Library for integrating contents of its "Two Centuries of Indian Print Project". There have been many digital library initiatives in the world including in India. In India, the digital library initiatives have been sponsored by several Ministries, notably In Previous   Digital Library of India (DLI) Now National Digital Library of India (NDLI), National Mission for Manuscripts (NMM) and Indira Gandhi National Centre for Arts (IGNCA)

 Digital Library of India (NDLI)

This initiative of the Government of India was started in early 2000 with an aim of digitizing (DSpace) 1 million rare books of Indian languages for the benefit of users of all over the world. he National Digital Library of India has opened up its 3.5 crore-strong digital contents, such as e-books, questions papers and solutions, lecture materials and thesis among others to help students study at home.16 DLI can be accessed through https://ndl.iitkgp.ac.in National Digital Library of India (NDL) hosted by IIT Kharagpur, sponsored by Ministry of Human Resource Development and established in 2015. Currently NDL has 7.2 million books in 70 different languages of 60 types of learning resources. The subject coverage includes philosophy and religion, literature, agriculture, fine arts, NCERT text books, theses from IITs, IIS, IIMs and Publications from the laboratories of CSIR and ICAR. There are over 917,026 entries found on self help groups in 0.5953 secs. This can be reached through https://ndl.iitkgp.ac.in/. NMM: National Mission for Manuscripts (2003) guidelines for digitization of library material of manuscripts, books, photos, maps. etc is available in both Hindi and English. It raises certain points like "why digitize?" and also deals with the process of digitization. More importantly guidelines are provided for handling/treatment of materials, selection of equipment, image capture, digital conversion, quality control, storage and management of digitized images and also on calculation of the cost of the proposed project. Indira Gandhi National Centre for Arts (IGNCA) that acts as the nodal agency of the National Mission for Manuscripts (NMM). The IGNCA has initiated many programs with its expertise in manuscript libraries through creating

Kalasampada, multimedia projects, CAT-CAT database, catalogue of microfilmed manuscripts and digitization.

Need for Study

Objectives

- To collect, organize & collate print & digital information & disseminate at the point of care and for future use.

- To provide seamless access to information.

- To act as gateway to digital and electronic information.

- To develop in to a single access point library.

Methodology

Digital technologies have driven researchers to revisit not only the themes and questions of their research but also their research methodologies (Tinati et al., 2014), often leading to the creation of novel methods of research (Fielding, Lee and Blank, 2008; Hine, 2005; Hughes, 2012; Johns, Chen and Hall, 2004; Jones, 1999; Markham and Baym, 2009; Roberts et al., 2013; Salmons, 2010, 2012; Sappleton 2013). Early on, scholars acknowledged that tools, applications, content formatting and other Internet affordances not only repackage existing research methods, adapting them to the Internet, but also suggest completely new and often innovative approaches to and methods of research (Jones, 1999; Sosnoski, 1999; Sudweeks and Simoff, 1999). Schneider and Foot (2004) suggested that the analysis of websites and their content requires new analytical tools, since increasingly complex web applications alter traditional relationships between media form and content (Schneider and Foot, 2004, p. 116). More recently, Rogers (2013) separated digital methods from virtual methods. He defined virtual methods as imported and migrated from offline research and as adapted to the online environment wherein they are employed (e.g., online surveys, e-interviews). On the other hand, for Rogers, digital methods are those 'native' to the medium (i.e., digital technologies), such as hyperlink analysis, web engine diagnostics, web archival research, web content analysis and social media research. Rogers considers digital methods appropriate for the analysis of digital data (e.g., hyperlinks, web content) and distinguishes them from digitised or virtual methods, aiming to draw researchers' attention to the 'medium' so as to 'reorient Internet research to consider the Internet as a source of data, method, and technique' (2013, p. 27). Others disagree with such a separation, considering it restrictive and arguing that it misses the full range of prospects and possibilities in digital methods (Roberts et al., 2013, p. 6).

Finding

The purpose of this study is to articulate and present in a simple way the structured digitizing method and to eliminate the bewilderment of the technical process of digitizing library materials such as manuscripts, printed documents. Also, the study analyses three e devices– smartphones, scanners and digital cameras are for digitizing and disseminating information for a research community.

Tools for Digitization

Digitization workstation consists of a stand-alone system where most or all the work is done on the same workstation or as a part of a network of workstations with imaging work being distributed and shared amongst various workstations. A typical digitizing station/project could consist of the following:

Micro computer with the latest configuration of Intel i5

Software

- Scanner/Digital camera/smartphone

- Storage system –internal, external

- Network

- High Power UPS

- Types of Images: BMP, TIF, JPEG, GIF and PNG

Most image formats use pixels per inch or dots per inch. The dpi chosen when scanning is entirely subjective. While scanning for preservation purposes a minimum of 300 dpi and even perhaps 600 dpi is required for a digital camera of 33 megapixels. The BMP (or bitmap) file format is supported by the Windows Operating System. The TIFF 9 or tagged image file format) is the format of choice for archival purposes. Indeed most digitization projects would choose TIFF as the first file format to transfer analogue content into digital. The JPEG format is very popular mainly because it allows images to be delivered in small file sizes. The GIF, Graphics Interchange Format was the image format of choice in the early stage of the internet, before JPEGs. PNG portable network graphics format that uses geometric shapes is preferred rather than pixels

Useful Software

Software for manipulating and saving the digital image is absolutely essential. Paint program is a standard and common program for simple image manipulation. Apart from this there are

some open source software and commercial software for using scanners– Adobe Photoshop, GIMP-Gnu Image Manipulation Program, IrfanView or ViewXn. When using a digital SLR camera, the software is usually provided as a package which will automatically install into the system. ViewNx is useful open source software for conversions of Raw files to JPEG or from TIFF to JPEG. Adobe Photoshop is often used for cropping and sizing JPEG images. Also it is useful for combining cropped JPEG images and to save as a PDF and to reduce file size to be saved from the scanned PDF. This option is better than reducing file size or reducing through print option/Adobe pdf because search ability of words etc. is good and the file size is also reduced. Abby Finereader is used for OCR-JPG images and lso its served OCR images to save as searchable PDF and to convert MS Word files

Digitization Techniques

The basic process of digitization is fairly simple through a wide range of sophisticated techniques and tools. Essentially, a digital image is composed of a grid of pixels (picture elements) arranged according to a set ratio of rows and columns. Each pixel represents a very small portion of the image, and is allocated a tonal value; namely, black, white or a particular colour or shade of gray. These tonal values are digitally represented in binary code (zeros or ones). So a digital image is actually a grid made up of zeros and ones. The binary digits for each pixel are called bits and are stored in a sequence. When the digital image is displayed on a computer screen or sent to a printer, the bits are interpreted and read by the computer to produce a physical representation of the original material.

Before beginning the digitization of manuscripts, the first step is to decide on digital devices such as a digital camera or a flatbed/moveable scanner. Second step is to survey the collection focusing on the type and size of the material to digitise and where the digitisation will take place. Third step is to contact other institutions that have digitised similar material and would have useful advice to share. Both digital photography and scanning are complex techniques and it is important that a person with the appropriate skills and ideally with an appropriate qualification is involved in the digitization work.

Scanners

Capturing a digital image is known as scanning. Image resolution i.e. the number of pixels in a row and colour depths, determines the quality of the scanning. There are several types of scanners, but it is preferable to save images in uncompressed format to enable later conversion to JPEG. In general an overhead scanner offers the most flexibility and decreases the risk of harming manuscripts as there is no direct contact, but these are very expensive and need technical expertise. The various types of scanners include: overhead or planetary, moving head, Sheet-feed, flatbed, specialized 'V' shaped book scanners, drum, robotic book and large format scanners. Among all these scanners, flatbed scanners and moving head scanners are the most familiar means of digitization. This type of scanner is comparatively inexpensive but small and medium size flatbed scanners will not be useful for palm leaf. Manuscripts as they are of various sizes of folio and many are not flat against the glass; the final and most important aspect is the use of harsh white light, possibly damaging the delicate palm leaf manuscripts.

Digital SLR Cameras

Digital cameras are designed specifically for making computer images. As a result digital cameras retain the strengths of scanners, can work without damaging manuscripts and can work with different shapes and sizes of manuscripts under various required lights. In addition we can make images of very high resolution and improve colour qualities of images.

Digital camera can save the images in either uncompressed TIFF format, or in uncompressed RAW format and at a later stage should be converted into JPEG. A tripod or a copy stand is needed to mount the camera downwards directly over the manuscript. This will prevent any distortion of the item being copied. An industry approved colour chart or grayscale reference card is essential in order to check the accuracy of the colour captured in photographs. One needs to plan for a necessary light source based on daylight colour and temperature. To prevent camera shake, one should plan for a remote shutter release or use tethered photography, where a link between the camera and the computer is established.

Smartphones

Undoubtedly, smart phones have become a part of our daily lives. By taking advantage of such massive use, we can use these miniature pocket computers to revolutionize research in digitization. New technology in smart phones offers high temporal and spatial resolution with built-in millisecond timing of stimuli display and touch screen responses. Smartphones are tools that are portable, easy to use, multimedia-enabled and identical in every country and for each user, with ready Internet transfer of collected data. These properties render it an instrument ideally adapted to studying cognitive functions. A smart phone allows us to dramatically

increase the amount of data to collect, digitize and process without sacrificing the time of users.

Digital SLR Camera Vs Scanner

There are many advantages and disadvantages when there are two types of an electronic device, but we have to select the correct one according to the purpose and objective. In this case there are two ways to digitize manuscripts using 'scanners' and 'digital cameras'. The Table 3.2 provides a list of important objectives and devices with the advantages and disadvantages.

Table-1 Digital Camera Vs Scanner

Ser. No	Objectives	Digital Camera	Scanner
1	Display	Good Quality camera with high pixel	Should have more dpi
2	Usefulness	Multipurpose	Single purpose
3	To digitize mss	possible with wide coverage lens	Need bigger sizes of scanner
4	To digitize photographs	Not possible	Possible
5	Different Aspects of objects	Possible to see all aspects-3D	Not possible-only flat items
6	Fragile Items	Fragile object can be handled in the place	Fragile object must be placed in scanner
7	Being Made use	Everybody can handle	Very rare-Not everyone can use
8	Speed	Fast - immediately	It will take several minutes
9	Size - characteristics	Easy - Very compact	Bigger in size, needs power cord
10	Result	Not very good quality	Better result
11	Close up	Required costly lens	No problem
12	Blurry corners	May be object in close-ups	No problem
13	Movement	Needs Tripod	No problem
14	Alignment	It should be pointed each time	No problem
15	Light	Needs Extra apparatus	No problem
16	Resolution	Needs higher megapixels	Measured in dpi/600 dpi equals to 34 pixel
17	Cost	Inexpensive	Expensive

Optical Character Recognition (OCR)

A scanned document is nothing more than a picture of a printed page. It cannot be edited or manipulated or managed based on the contents. Another technology which is involved in digitization is Optical Character Recognition (OCR). OCR is the usual process by which a page

image is transformed into a text file. The purpose of the whole OCR process is to recognize the letters, words, and symbols printed on a page. Presently, there is a wide range of commercial OCR software in use. There is no proven OCR software to handle Indian language texts. Today, if Indian language materials have to be digitized, there are two options- maintain the files as digital images or manually key in the material.

Metadata

Digitized product that is to be put up on the Web needs information that makes it possible to be located. One of the principal challenges is to determine what information is essential for describing an electronic product. The Dublin Core (http://purl.oclc.org/metadata/dublin_core/) and other special initiatives for structuring and standardizing descriptive data propose to combine information about the technical characteristics of digital files (how they were created), their location, and a summary of their contents. The resulting information is known as "Metadata" and is located in the header of a tagged document. Their function is to provide users with a standardized means for intellectual access to digitized materials.

Digital Storage

The biggest concerns after digitizing manuscripts are where to store and how to manage an item. When digitizing, image file sizes are normally large formats of TIFF or BMP. It is essential to ensure that the digitizing station has the following: A connection to a network, where images can be stored in a server A removable HDD minimum of 1 TB A DVD burner

Conclusion

Libraries of different statuses have been working on this daunting task for more than a decade but only Research & Development libraries and special libraries have reached this level. They have created many digital initiatives and guidelines for solving technical issues. For this development for all the libraries, librarians should come forward to start using the latest digital resources and their applications to the readers.

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Information products and services Marketing: Current Status in University Libraries in Sri Lanka

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Abstract

This paper seeks to analyze and describe the current situation of information products and services marketing in university libraries in Sri Lanka. Importance of university libraries can be identified as the "heart" of their learning organization. However, in the literature, it is reported that university libraries face many failures in providing information sources and services to their users. It is therefore important to identify how the marketing concept is used in the university libraries to fulfill their user's information requirements effectively. This study, therefore, aims to identify the present situation in information products and information services marketing in the university libraries in Sri Lanka. The mixed research methodology has been used as a research methodology of this study while the case research method has been used as a research strategy. The study sample consisted of 15 state university librarians in Sri Lanka. Structured questionnaires were distributed to gather data for this study and data analysis was carried out with SPSS.

Keywords: Information Marketing, Information Products, Information Services, university libraries

Introduction

Numerous studies on information marketing in libraries have been done all over the world. Only limited studies have been undertaken in Sri Lanka. This study endeavours to examine the current situation of marketing information products and services in university libraries in Sri Lanka. It is expected that the findings of this study would be useful for university libraries to satisfy their customers and fulfill their information wants and needs. For more than centuries librarians have been using strategies to satisfy users. One of those strategies can be identified as marketing. The concept of information marketing includes several components such as marketing mix, marketing strategy, information services, and product design, and user engagement. The combination of all these factors is the foundation for successful information marketing. However, the current status of information marketing in university libraries in Sri Lanka is not at a satisfactory level.

Methodology

The mixed research methodology has been used as a research methodology of this study while the case research method has been used as a research strategy, under the case research methods exploratory case study method was used to identify the current status in information product and information services marketing in university libraries in Sri Lanka. In this study, the questionnaire method was used to collect the primary data required for this research. The

printed questionnaire, as well as the online questionnaire, have been created using google form in obtaining responses of the target group. All existing university libraries in Sri Lanka represent the population in this research and the sample represents only 15 state university libraries in Sri Lanka. Branch libraries are often found in addition to the main library at a university library. But the focus here was only on the major libraries of the 15 state universities.

Results

The views expressed by university librarians on information marketing can be summarized as follows;

Knowledge of Information Marketing

University librarians responded that they have a standardized knowledge about information marketing and the percentage is 87%. Two university librarians responded they do not have adequate knowledge about it and it was 13 percent. However overall this study identified that librarians have sufficient knowledge of information marketing.

Information Marketing Policy

Analysis of specific information marketing policy in the university libraries, to implement their services, 12 university librarians responded that there is no information marketing policy and that the percentage is 80%. In addition, three university librarians responded that they have an information marketing policy, which is a percentage of 20%.

Objectives of Information Marketing

University libraries have stated that the main objective of their information product and information service marketing, is to increase the satisfaction of the users who use the library. Its percentage is 93.3%. Subsequent responses have been overwhelming, improving the library usage, enhancing library usage through the promotion activities, and informing the user about information sources available in the library. Its percentage is 86.7%. Among the objectives of marketing information products and information services, moderate responses were received for collecting and organizing information sources (46.7%), generating income (40%), and increasing innovation (40%). Among the goals of information product and information service marketing, there has been a slight response to the goal of combat Competitively with the commercial world. Its percentage is 33.3%.

Information Products created by the university libraries

The 12 librarians of the university libraries have commented that there are already created information products on their own. It is 80 percent as a percentage. Also, the librarians of three

university libraries have stated that their libraries do not create information products. Its percentage is 20%.

Out of these 12 libraries, 11 libraries have given a majority of 92% of the respondents saying that they are creating a New Acquisition List. The majority of respondents to the sample representation then stated that they would create a Monthly list of the new edition and Periodicals Index. Its percentage is 58%. Among the sources of information generated by universities, libraries are Monthly document lists (Serial publication) moderate responses. However, Directories and Abstract were identified as the least responsive information products created by the libraries. Its percentage is 17%.

Promotion methods used by the library

The methods used by the University Library to promote information products and information services have been identified.
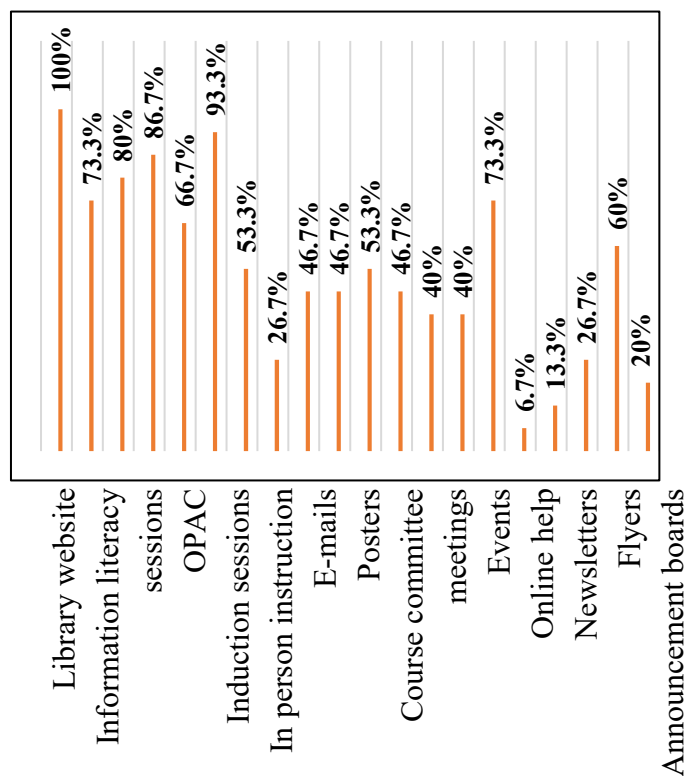
Figure 1. Promotion methods used by the library

The use of library websites to Promote information products and information services percentage is 100%. Since then, 93.3% of responses have been to promote using e-mail. The percentage of information products and information services promoted using induction sessions is 86.7%. Responses to communications using posters and newsletters were moderate, with it 53.3%. Among the methods used to promote information production and information services, course committee meetings (26.7%), social media (26.7%), use of blogs and bulletins received

less response. Its percentages are 6.7% and 13.3% respectively.

Discussion

Libraries must double up their efforts for information marketing in their libraries. The adoption of specific marketing principles helps to beef up the user requirements. However, librarians need to shake off some of their myths and beliefs in old-school performances if they are to be appropriate in the current competitive world. The development of effective marketing plans is key to the survival of libraries in the competitive environment. Social Media usage by libraries is attractive, important and a growing communication tool that is used by libraries to interrelate with library users. Hence, university libraries should try out and consent to new technology. The following recommendations were made to enrich the quality of marketing library products and information services in university libraries.

- A proper marketing plan needs to be prepared and implemented

- Conduct more awareness programs / Engage with subject library information literacy service as a unit

- The university libraries should assist the users to keep up with the innovations by providing them various information services and information products.

- There should be a proper feedback mechanism to monitor the effectiveness of the information service and information products.

- The library management should communicate with their customers frequently and attract them to visit the library

- Most libraries do not have separate marketing personnel. Though should be given to establishing formal marketing positions to handle marketing-related activities.

- Libraries should be continuously aware to maintain and improve the quality and range of their services/products and to match it to the changing user requirements.

- Library and information professionals have to properly identify the concept of information marketing. To help them understand and utilize the concepts of modern marketing techniques, continuing education seminars, workshops, and training programs should be arranged frequently, so that they could be more responsive to user needs.

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Online education during covid-19 pandemic among prospective teachers: a study

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Abstract

The present study investigates tried to study the online education during pandemic among prospective teachers. The investigators have selected 110 prospective teachers from St. Xavier's College of Education (Autonomous), Palayamkottai as the sample. Survey method was used to collect the data with the help of the tool namely 'Online Education during Pandemic among Prospective Teachers' developed and validated by the investigators in the year 2021. The findings revealed that, there is no significant difference between male and female, UG and PG qualified, arts and science subject and smart phone and laptop/desktop using prospective teachers in online education during pandemic.

Keywords: Online Education, Pandemic and Prospective Teachers

Introduction

Education is defined as a learning process for the individual to attain knowledge and understanding of the higher specific objects. The knowledge gained formally resulting individual has a pattern of thought and behavior in accordance with the education they have gained (Big Indonesian Dictionary, 1991). The spread of COVID-19 around the globe impact a drastic change in the structure and function of education, due to the suspended face to face classes. Thus, as an alternative educationist moved to a new norm called online education. Here the teacher and the students are meeting in a specific platform using a link and the instruction will be carried out with the support of various ICT facilities. At present, the government and the educationists support this online education in order to provide education without wasting the time till the restoration of normal teaching i.e., offline teaching. However, a developing country like India, this online education encounters a number of problems such as unavailability of quality infrastructure for online education, poor network connectivity, low speed internet, various physical problems based on the individual body conditions.

Review of Related Literature

Rasmitadila and et.al. (2020) conducted a study to explore the perceptions of primary school teachers of online learning in a program developed in Indonesia called School from Home during the COVID-19 Pandemic. The analysis results found four main themes, namely, instructional strategies, challenges, support, and motivation of teachers. The findings of this study indicated that teachers, as well as learning designers, should design online learning frameworks that consider student backgrounds, especially family economic backgrounds, as well as students' learning experiences and needs in implementing the national curriculum during the COVID-19 Pandemic.

Muhammad Adnan, & Kainat Anwar (2020) conducted a study to examine the attitudes of Pakistani higher education students towards compulsory digital and distance learning university courses amid Corona virus (COVID-19). The findings of the study highlighted that online learning cannot produce desired results in underdeveloped countries like Pakistan, where a vast majority of students are unable to access the internet due to technical as well as monetary issues. The lack of face-to-face interaction with the instructor, response time and absence of traditional classroom socialization were among some other issues highlighted by higher education students. Apart from technical and monetary issues students also reported a few other difficulties like lack of interaction with the instructor, response time and absence of traditional classroom socialization. The lack of on-campus socialization has caused difficulties for students to do group projects in distance learning mode as reported by 42.9% of students. The result of this study also indicated that educational organizations need to improve their curriculum and design appropriate content for online lectures.

Pinaki Chakraborty and et.al. (2021) conduct a study to find the opinion of students on online education during the COVID-19 pandemic. The study results revealed that the students felt that they learn better in physical classrooms (65.9%) and by attending MOOCs (39.9%) than through online education. The students, however, felt that the professors have improved their online teaching skills since the beginning of the pandemic (68.1%) and online education is useful right now (77.9%). The students felt that online education was stressful and affecting their health and social life. They found that the students considered online education a viable alternative under the current circumstances.

Significance of the Study

Education is essential tool for individual development and social upliftment. But the present pandemic condition creates a number of challenges and hurdles in the process of education. Until March 2020, Indian teachers and students were hardly aware about the online platforms for teaching and learning, but within a short span of time they switch over to various online modes of education due to the demanding need. After the introduction online education, it is facing a number of criticisms and still a leading debatable title. Since, there is no other go in this pandemic, online education will be the only possible way to carry out education. On the other side the quality of education have to be considered and it should not be compromised even if it is in online. So at present, researchers and educationists around the globe are carrying out a number of research studies about online education, about its effectiveness, challenges, problems and how to enhance it in their context. The present investigation intended to study the online education among the prospective teachers from St. Xavier's College of Education

(Autonomous), Palayamkottai, one of the pioneer teacher education institutions in south India.

Title of the Problem

The problem under investigation is entitled as, "Online Education during Pandemic among Prospective Teachers: A Study."

Operational Definitions of the Key Terms

Online Education during Pandemic

The usage of information and communications technologies in education to help the development and acquisition of knowledge among the learners from different remote locations is known as online education. It uses the internet and video, audio, text, graphic and animations technologies and software to create the learning environment. For the present study online education during pandemic refers to the pattern, mode and impact of online education provided to the prospective teachers in teacher education institution.

Prospective Teachers

Prospective teachers refer to the students those who are pursuing two year Bachelor of Education degree course from the colleges of education or any other recognized institutions of higher education.

Objectives

- To find out the level of online education during pandemic among prospective teachers.

- To find out whether there is any significant difference in online education during pandemic of prospective teachers with respect to their gender, qualification, subject and gadget used for online education.

Null Hypotheses

- There is no significant difference in online education during pandemic of prospective teachers with respect to their gender, qualification, subject and gadget used for online education.

Methodology

The population for the present study consists of the prospective teachers pursuing their Bachelor of Education degree programme from St. Xavier's College of Education (Autonomous), Palayamkottai. A sample of 110 prospective teachers were selected randomly from St. Xavier's College of Education (Autonomous), Palayamkottai. The data was collected

using the tool 'Online Education during Pandemic among Prospective Teachers' constructed and validated by the investigators in the year 2021.

Analysis of Data

The raw data were analyzed using the statistical techniques percentage analysis and t-test and presented in the following tables.

Table 1 - Percentage Analysis of Online Education during Pandemic

Variable	Level	Frequency	Percent
Online Education during Pandemic	Low	15	13.6
	Moderate	80	72.7
	High	15	13.6
	Total	110	100.0

It is inferred from the table (1) that 13.6%, 72.7% and 13.6% of prospective teachers have low, moderate and high level in Online Education during Pandemic.

Table 2 - Difference in Online Education during Pandemic with regard to the Selected Demographic Variables

Demographic Variables	Sub Categories	N	Mean	SD	t-value	p-value	Remarks
Gender	Male	23	55.74	7.092	0.685	0.495	N. S.
	Female	87	54.61	7.025			
Qualification	UG	61	53.87	6.073	1.640	0.104	N. S.
	PG	49	56.06	7.946			
Subject	Arts	40	56.13	7.858	1.452	0.149	N. S.
	Science	70	54.11	6.442			
Gadgets Used	Smartphone	89	54.65	6.852	1.148	0.266	N. S.
	Laptop/Desktop	21	57.71	9.340			

It is inferred from the table (2) that there is no significant difference between male and female prospective teachers, UG and PG qualified prospective teachers, arts and science subject prospective teachers and prospective teachers using smart phone and laptop/desktop for online education during pandemic, since the p value is greater than 0.05.

Findings and Interpretations

Percentage analysis showed that majority i.e., 72.7% prospective teachers fall under the moderate category of online education during pandemic. No significant difference was found between male and female, UG and PG qualified, arts and science subject and smart phone and laptop/desktop using prospective teachers in their online education during pandemic. This may due to the reason that prospective teachers are the future teachers and they possessed at least a minimum UG qualifications, so they may able to realize the changes and challenges because of

the pandemic due to COVID-19. As the matured individuals, they may consider online education as the need of the hour; otherwise they have to sacrifice unknown number of years till the end of this pandemic. So they may approach online education in matured and positive manner, as they are in the training course for the teacher preparation.

Conclusion

Prospective teachers being the future teachers must be well trained in all domains, including the technological skills as they are going to teach the z-generation students, who are well versed in technology. After the pandemic we have to face a new norm in education where online instruction will be an integral aspect of education. Till the end of COVID-19 pandemic situation or in other words till the day where we are going to have the real face to face normal classes, we have to go along with the online education. So the teacher education institutions as well as the prospective teachers must develop a positive attitude towards online education, as it is the unavoidable need of the hour.

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Contribution of Public Librarians for Empowering Research in Public libraries of the Chennai region through library programs for Social advancement.

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Abstract

This article reveals about the young children's interest that paves the way for their learning which in turn also enhances their career path through their participation in library programs organized by public librarians in Public libraries. Lots of surveys had done on this topic around the world and analyzed information is suggested for further community development. In many communities, libraries play a different role in this digital era for maintaining their lively spaces where children attend a variety of programs and activities doing in the Public libraries of Chennai Region help children find trustworthy and reliable information, learn new things, and make important decisions through participation in many programs. These programs tell how public librarians supporting children's interests.

Keywords: *Children library programs, Stories, Public libraries, Social advancement, social welfare, Cognitive development.*

Introduction

This article says about the need and importance of conducting Library programs to help children become aware of to learn the different cultures of other people. Through conducting, programs in Public libraries must teach the children how a person behaves or the way that makes children acts in situations warranties and guarantees themselves to be called a good personality. By participating in these programs children can develop their personalities for their enhancement of future careers. Public Libraries must therefore provide the children with information and programs which will prepare them for life-long learning. Create an opportunity for fun with learning.

Need of library programs for young children and adults in public libraries

Young Children covering all age groups starting from 4-15 years needs information/suggestion that in turn will sharpen their mind which leads to their career development. Today children mostly are spending their time utmost in using the gadgets like smart mobile phones, playing videogames, watching t.v. et., They are not aware of time management and due to this lacking knowledge in them unable to decide their career path. In this connection, Public libraries in Chennai including Anna centenary library are conducting many valuable programs.

Thus, Public librarians working in Public libraries that includes engulfing Branch libraries, Circle Libraries (utmost selecting nearly 10 libraries), and Annacentenary Library of Chennai region coming under the "Directorate of Public Libraries "Department of School Education" are doing these programs regularly. These programs are doing for the welfare of society.

Contribution of Public Librarians of Empowering Research and implementation of

Brainstorming Session Programs:

Studies of Public libraries doing the above-said programs show the research must go above theoretical speculation to support the practical development of public libraries.

Public librarians advertise these programs through social media, internet by sending emails to coming users groups, and canvassing higher authorities by issuing notifications to nearby schools, Displaying program activities information in the library notice board, etc., in order to bring the utmost maximum coverage of user's total up to 150 persons per program and in order to draw special attention to involve underprivileged children we are approaching Government schools includes elementary schools and in this way public librarians are providing their contribution for the social advancement of the society.

The following is the list of Program activities holding different themes / different topics of titles of all the subjects of prominent resource persons that embrace the wonderful brainstorming sessions, especially for the children. They are:

- **Storytelling** with pros and puppets; Puppet Shows involving Theatre shows; New Beginnings; Shadow Puppetry. Having Ventriloquist as the expert: Ventriloquism Storytelling program; narrate the stories and ask them to draw pictures.

- **For promoting art and craft activities**: Art from waste, Drawing and Handwriting, Leaf Nature and Drawing; Sand Art of teaching how to make statues using clay material.

- **Dance**: Panchatantra story: An interactive session in Bharathanatiyam4.**Teaching Music** involving instruments like miruthangam, violin, keyboard, veena, using school teachers / famous experts who are all top in that field.
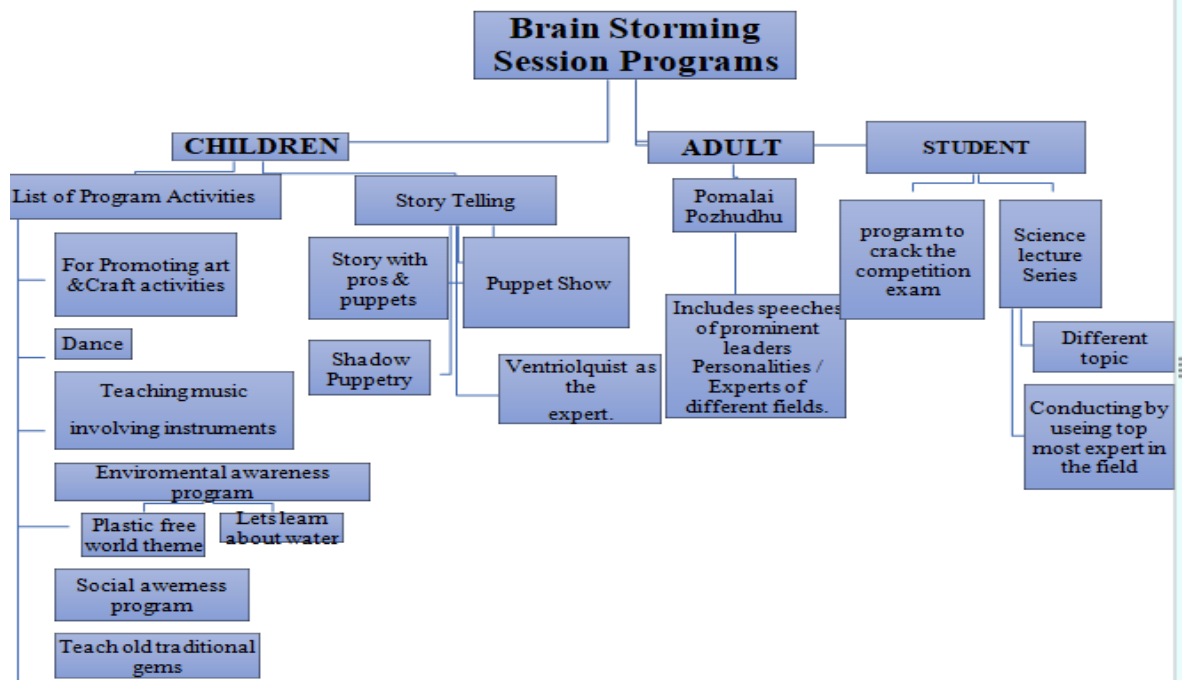
Fig No.1. Brain Storming Session Programs
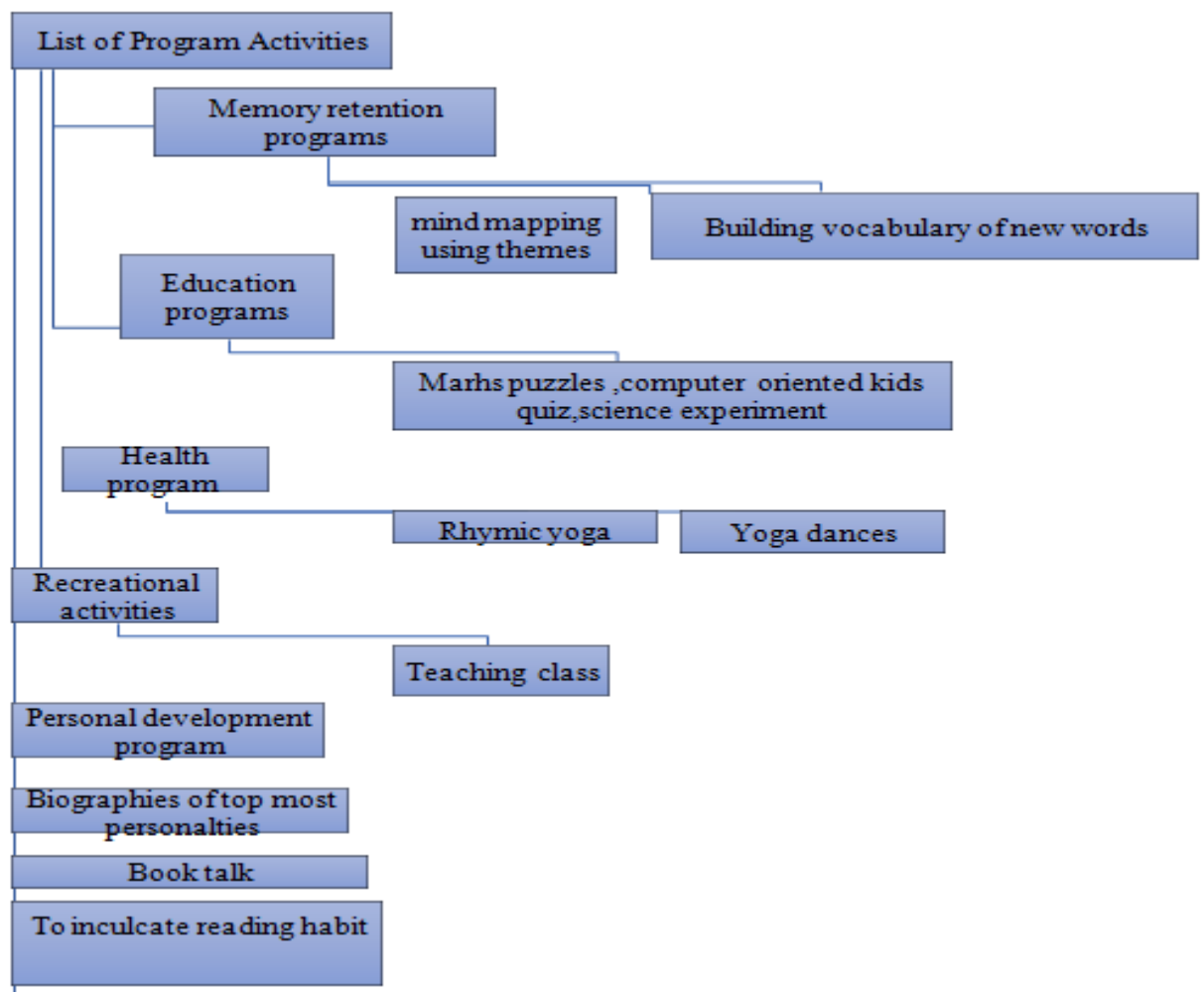
Fig No.2. Programs

- **Environment Awareness programs are** done using projectors to display theme-related videos such as: Plastic-free world Theme: New Beginnings. Bio-Diversity water and food. Hygiene with chotta Beem; Awareness of Microorganisms and spreading of infections; Importance of forests, Animals and pests workshop. Giving information regarding how to keep an "Accident-free Nation"; let's learn about water.

- **Social Awareness programs** related to how to get rid of critical situations during the pandemic period, creating the interest in the rendering of volunteer service to the affected community of people, explaining natural calamities and their causes and how to protect from them; To live – An awareness and to follow rules and regulations.

- To **teach Old traditional games** to get rid of children from using gadgets and to live a healthy life public librarians gave funful sessions of teaching Pallanguzhi game, Paramapadam game which involves rolling of Thaya kattai of old tradition; Paandi

game, by drawing rectangular boxes of lines and children are motivating playing within this line without losing their concentration, Playing using pebble stones and how to focus the mind at one point to win the game; jumping rope; Hiding games; various games involving physical activities like go-go; badminton, volleyball; swimming and narrating how to become district players /Champions in those games.

- **For Memory Retention Progam**: Mind mapping is taught how to pick up themes and to develop subthemes in that particular topic and also to understand the concepts very easily which upgrades their memory power and learning; Building Vocabulary of using new words and memorization technique.

- **Education programs**: Ecstatic Maths; Maths puzzles; Understanding Number operations, fractions and basic Geometry using hands-on manipulatives; Computer oriented kids Quiz; Fun with maths workshop; How to boost Brainpower; Doing Science Experiment sessions like Fun with Science; Introduction to Robotics; Blinking light-emitting diode; Basic Hearing sensor: Fun with Robotics; Bubbles show; explaining Astronomy and exists of planets; Force; Pressure. **To face the modern competitive world, librarians are providing different sessions like Empowering student's brains to write Olympiad exams, particularly in maths and science in order to become great scientists and thus encouraging children's minds to participate in the research activities.**

- **To have recreational activities programs**: Teaching Chess and participating children often in this game will have the opportunity of making decisions of their own and chances of increasing their academic performance through securing higher scores. Thus, public librarians will choose renowned prominent persons and teach the children how to become National and International Chess Champion across the nation and the world.

- **Health programs**: Rhythmic Yoga; Yoga Dance; Health and safety; Human Body and Bone movement; Eye protection training; Oral Heal is overall health; How to increase the immunity of children and how to avoid junk foods; Traditional food and Silambam.

- To overcome struggles in their succeeding life period public librarians chose **biographies of topmost personalities who struggled a lot in their life** and by sacrificing how they become the popular wonderful characteristic personalities. This is especially for children and to give them practical knowledge of how real-life experiences can be woven into stories and to develop self-confidence in their minds to avoid inferiority complexes and able them to survive among with the elite group, this kind of special sessions provided on particular selected birth and death dates of that

popular personalities. Programs like Personality development program Vidhaikalam, of Abdul kalam's life History; Swamy Vivekanandar in your life, etc.,

- During special occasions, Public librarians are holding different **competitive contest sessions** like Essay competition, drawing competition and to inculcate the interest for creativity, public librarians ask them to write poem or story on their own, Speech competition and at the end selected students had given prizes/ gifts to the winners and also to the runners in order to encourage children's mind to involve practically in this thought triggering sessions.

- **Playback Theatre** and its benefits. In this program, artists involved in acting in playback theatre will teach how to express their feelings in many situations and how to act in dramas, etc.,

- **To build up a good relationship with the parents, friends, relatives, and teachers** Public librarians provided programs involved explaining the concepts like "Maintaining the relationship between parents and children in this modern life; teaching consciousness concept programs like "Building Character of a person by obeying elder people in the society.

- To increase **language proficiency skills** librarians are conducting programs using resource persons like "How to upgrade in grammar and formation of sentences to write good comprehension?"; Creative writing and how to write a letter?

- **To crack the Competition Exams like TNPSC, TRB, RRB, UPSC**, banking probationary exam, SSC Board conducting exams, programs like How to prepare for the competitive exams? These programs are done by public librarians by approaching successful IAS and IPS officers who are in the current service to give orientation classes which will be very useful for the students who are preparing for the different competitive exams in order to have a successful career in their life time.

- **To in order to inculcate reading habits in young children** public librarians giving a chance for the children to participate in the **"Book Talk** "program. In this, they can narrate the book theme, characters, titles, and authors, and publishers and this activity will provoke the children for enhancing their learning activity.

- The above-said programs are **rendered according to the guidelines of IAS Officers, Director, Chief Librarian and Information officer (Joint Directors) who are all working currently in Directorate of Public Instruction (D.P.I.), District Library officer of Local Library Authority,** for selecting prominent and popular resources

person covering all the fields of user's area interests by collecting the feedback forms of the attended user's response to the program.

- **Importance of enhancing personality for children in their career:**

  - Personality is what we perceive in mind.

  - Defined as a dynamic and organised set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations and behaviours in various situations.

  - The word "Personality" originates from the Latin word "Persona".

  - To deal with different individuals.

  - To enhance career prospects.

  - To cultivate flexibility, persuasion, compassion and diplomacy.

  - To ensure competence in professional life.

  - Through participating in different programmes, children's life style matures by understanding of the real world, acquiring of skills for their developmental stages on their life's way to wisdom and therefore also gives solutions to many problems which the children facing in day to day life cycles.

  - Personality can refer to a set of qualities that make an individual look distinct from others.

Purpose and Benefits of attending the programs in Public Libraries:

- Nowadays, Public librarians are in the process of sharing the resources kept in their knowledge treasure and giving their excellent service to create the awareness of the people's community through conducting programs in order to upgrade the society.

- To improve their academic achievement and also the creating of reading habits.

- Library programs help children to consult various resources of the library in turn that create interest for participating children and to emerge as a community of "Life Long Learners".

- Provides a chance to have interaction with different resource persons in order to improve their communication skills, improvement in language proficiency skills, spelling, and math computation.

- Children can have the ability of problem-solving capacity in their life period by developing their self–concepts during critical situations by using computational thinking skills.

- Enhances the positive attitude, that create the enthusiasm of having a good mentality in learning, doing teamwork collaboratively that gains knowledge in different subject areas as well as the broadening the vision of the external world.

- Recognizing the theory part of the curriculum knowledge will automatically transform to effective instructional plans which impart the capability of developing leadership abilities.

Recommendations

- Through this study analysis of having a deep vision of reviewing various review literature, Public librarians who are all working in Public libraries including Anna Centenary Library have suggested valuable points for upgrading the society. They are:

- **To have small libraries in all government schools** to impart good reading skills&to conduct different programsthereby enhances their knowledge.

- By having School libraries there will be the chance to conduct different programs to upgrade the children's future careers.

- By participating in school programs **students widen the mentality of the knowledge thereby avoiding the concept of "By hearting the lessons" mechanically. F**urther, also they can understand the concepts of the syllabus on their own.

- **Separate Funds** are to be allocated by the State Government to all the public libraries including Anna Centenary Library to do such "Personality developing programs" for children continuously and thus, Public librarians acting as a "Mentor" for the welfare of the society.

- Public librarians working in public libraries of all the districts tend to have a wider collection, proper retrieval process for users to select the interesting subject area books on their own and also to have good planning, organizing, communication, and management skills resulting in emerging as an expert in developing effective library media programs.

- Another perspective demonstrates that **public libraries improve the ICT skills of user**s.

Conclusion

Several programs conducted in Public libraries promote social interaction to attain recreational features of public library activities. Goal-oriented library programs support the general life quality of targeted user segments eg: by improving cognitive skills for children through mind exercises and forming reading clubs. Because the **"Empty mind is the devil's workshop".** By engaging the children in any activity-related work / attending program / participating in developing extracurricular activities /sessions, they will have greater exposure and their behaviour also changed which is very essential in **nowadays for having the good moral character**. Then only they can give fruitful things in their future career period. Several studies throw visions on how libraries **connected to develop democratic society implicitly through the investigation of ideas like social interaction**, **trust creation with user's community, promoting cultural and informational materials and activities**.

Achieving /developing personality is a must in children because "Human mind with negative thoughts "is the root cause for all the problems facing by individuals in their families and thereby troubling their living society. **The thought of committing suicide with an inferiority complex is very common in underprivileged students who are all living with high motivation., (eg., students involved in appearing for the NEET Exams) during facing their failure in their lifetime.** Hence, these personality developing programs are needed for children for the upliftment of their character and this provides a path in developing a **good "etiquette" society.** Therefore, a public librarian supports research activities through their contribution to do variety of programs in order to upgrade the society.

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Roles of Public Libraries towards Enhancing Effective Knowledge Management in Kaduna State, Nigeria

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Abstract

The paper discusses the Roles of Public Libraries towards Enhancing Effective Knowledge Management in Kaduna state, Nigeria. Development of Public Libraries in Nigeria started aggressively from its birth, and that effort gained the support of foreign agencies and organisations that provided grants at different periods, but the major impact was spearheaded by the regional leaders. Kaduna State is the successor to the old Northern Region of Nigeria. Knowledge Management (KM) is a crucial concept which aims, in any organization, at explaining and clearing how to transform both personal and organizational information into individual and collective knowledge and skills. Four main types of knowledge were highlighted and sequenced. The paper looked at some basic managerial functions and skills for enhancing Knowledge Management, such as interpersonal skills, information skills, and decision-making skills. It also highlighted the roles required or can be played by Public Libraries to improve effective Knowledge Management. Public Libraries need to upgrade their skills needed for technological advancement, scribd delivery, Web 2.0, social media, and electronic library automation. Some challenges were identified such as: Power failure, internet problems, lack of qualified staff and funding, etc. The paper concluded that Public Libraries in Kaduna State should ensure the optimal use of technology to enhance effective Knowledge Management. Therefore, way forward include among others, that Public Libraries in Kaduna State should provide support to supplement electricity in the event of a power outage such as provision of high-powered solar systems and generators that provide stable power. Specialized ICT personnel should be recruited to assist Kaduna State Public Libraries in enhancing effective knowledge management and proper funding should be provided to Public Libraries in Kaduna State for enhanced Knowledge Management.

Keywords: *Public Libraries, Enhancing, Knowledge Management, Roles, Technology.*

Introduction

Knowledge Management (KM) is a crucial concept which aims, in any organization, at explaining and clearing how to transform both personal and organizational information into individual and collective knowledge and skills. In this way, organizations are unable to continue, unless they select an appropriate strategy to present intellectual and knowledge-based capitals. In order to be successful in today's competitive market, organizations need to search for expert and experienced human resources or to educate them about the required skills. This is where Public Libraries come in handy because they are embodiment and closer to the individuals in a community. However, these are not enough, and it is necessary to consider the

importance of Public Libraries in transfer of experience and knowledge from experts to beginners and those who need them. This is of so much importance that in ranking of any organizations, intellectual capital is deemed to be a key indicator. As an undeniable and crucial section in organizations' success, knowledge management covers a wide range of organizational ideas including strategic, economic, behavioral, and managerial strategies.

Knowledge Management and management procedures has become essential to the continued existence of academic libraries (Gourlay, 2001; in Mir Hamid, Abdulkarim & Hussein, 2016). As a result, KM has gained popularity as a management tool during the last decade, this makes knowledge now known as the engine of production and economic growth, leading to a new hub on the role of technology and learning in economic performance. Therefore, it is very essential to educate people about the services provided by libraries to encourage their use (Bawa, Chukwuka & Fagbemi, 2017).

In Nigeria, library organization is no exception. This sector is mainly responsible for preserving, processing and disseminating information related to the cultural heritage of its community (Bawa, Chukwuka & Fagbemi, 2017). On the other hand, research in today's institution is the key to creating and disseminating knowledge. Institutions do not just make knowledge accessible to users, but manage and work with existing knowledge so that it can be used later. This makes foreign institutions today to adapt to their varying roles in a knowledge society (Singh, 2010 in Marjal, 2011).

A Public Library is seen, according to National Center for Education Statistics (1996), as an entity that is established under government enabling laws and regulations to serve the community, district, state, region or nation that provides at least the following:

- An organized collection of information resources, i.e. printed or non-printed materials, or a combination thereof;

- Paid staff; i.e. professionals and Para-professionals

- An established schedule in which services of the staff are available to the general public;

- The facilities necessary to support such a collection, staff, schedule and services; and

- Is supported in whole or in part with public funds.

Public Libraries in Nigeria and Kaduna State

Development of Public Libraries in Nigeria started aggressively from its birth, and that effort gained the support of foreign agencies and organisations that provided grants at different periods, but the major impact was spearheaded by the regional leaders. A document that rightly

mirrored the use of books and libraries in pre-colonial Nigeria was one by United Nations Educational, Scientific and Cultural Organisation (UNESCO) which was among the papers presented at the two-week regional seminal organized by same UNESCO between the 10th to 22nd September 1962 held at Enugu, Eastern region of Nigeria entitled, "Present Situation of Public Library Development in the English Speaking African Countries." On Nigeria, the document stressed that each region was responsible for the establishment and management of its public libraries and it compared their activities in the then three regions.

Kaduna State is the successor to the old Northern Region of Nigeria, which had its capital in Kaduna. In 1967 the region was split into six States, one was the North-Central State whose name was changed to Kaduna State in 1976. The State is divided into twenty-three (23) local government areas. Kaduna State Library Board was established in accordance with the Library Decree of 1970 which authorize the expansion of National Library Board to all States of the Federation. It has a Central Library as the headquarters in Kaduna, the State capital and 9 divisional branches across the State Local Government Areas and Wards.

Librarians of all backgrounds need to ensure that users have the right knowledge anytime, anywhere to enhance their learning. These roles must be performed very well to ensure that knowledge does not remain in the library without proper use. These tasks can be performed by a Public Library Librarian who has a deep knowledge of the services and resources available to the users to ensure that the knowledge is properly managed. It should be well-known that Public Libraries, realizing the significant consequence of KM, assign knowledge managers to create, disseminate, and use knowledge to create systems of KM. An effective mechanism which will help the library to improve performance in the design and implementation of KM systems. Such a system permits precise definition of knowledge and knowledge exchange, thus improving the performance of library staff.

However, the argument over the position of KM in libraries, Public Libraries inclusive, has turn out to be more compound over the past years, as the type of knowledge that is used and consumed daily in a particular library is also complicated by the continuous advances in technology and invention. Its complexity has become an impact on the academic libraries (Ciborra & Andreu, 2001; Dutta, 1997; Gottschalk, 2000 in Mir Hamid, Abdulkarim, & Hussein, 2016).

Concepts of Knowledge Management

There are two types of KM, which are: the type of knowledge that is reflected in the inner state of a person, as well as the ability of the person himself to act, and the type that is frequently expressed and recorded (Piyush & Bhubanaswar, 2002). Knowledge Management is seen as the process of converting information and intellect into sustainable worth. This allows users to

know how to act whilst they require to (Kidwell et al. in Marjal, 2011). KM is about making the correct knowledge obtainable to the exact processor, i.e. human or a computer, at the exact time in the exact appearance at the right rate (Holsapple & Joshi, 1999; Aranganathan & Lakshmi, 2010 in Marjal, 2011). KM refers to the steps that are thoroughly taken to create, organize and make available the intellectual wealth of an organization. As well as to strengthen the system of teaching and lifelong (Sharifuddin & Rowland, 2004; in Seyeed & Batool, (2011)

Types of Knowledge Viewpoint

Davenport et al. divided knowledge into four main types: **Source:** Rawtani (2017)

- To improve knowledge, transfer by sharing tools and telecommunications network,

- To create Knowledge repositories such as competitive intelligence, research reports, techniques and methods, Know how discussion database,

- To improve knowledge access via video conferencing systems and documents scanning,

- To the knowledge environment by provide an enabling environment to more effective knowledge creation, transfer and use to increase awareness on sharing.

In addition, Knowledge Management has a sequence that follows six steps:

Create Knowledge	Store Knowledge
Capture Knowledge	Manage Knowledge and finally
Refine Knowledge	Disseminate the Knowledge
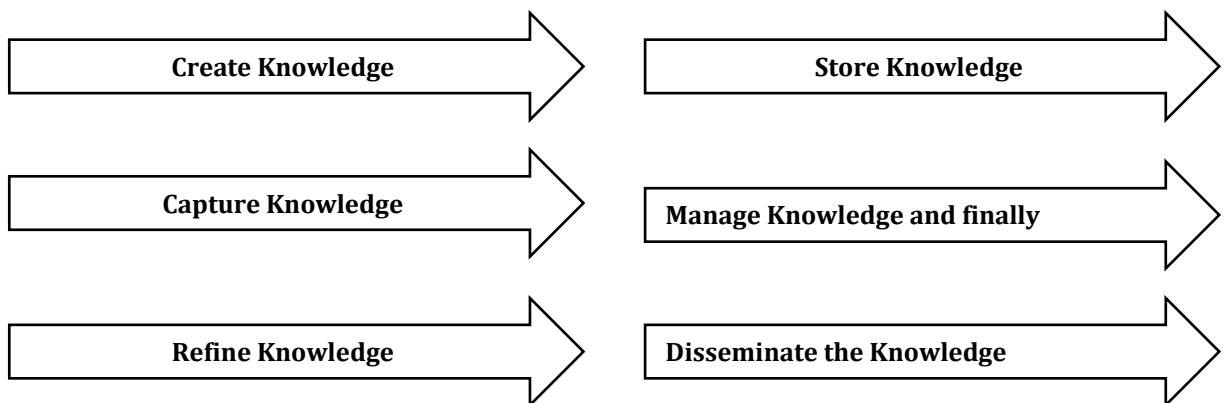
Source: Rawtani (2017)

Knowledge Management in Public Libraries

KM and Public Libraries are natural partners, librarians have strong ties with the broader information science field and as such have encountered principles of KM throughout their training and career. KM encompasses five core principles: Knowledge acquisition, Knowledge organization, Knowledge retention, Knowledge sharing and Knowledge generation (Davenport & Prusak, 1998; Jashapara, 2004). It becomes clear that all the five are areas that Public

Libraries have an involvement in; this is particularly true for explicit KM activities related to the organization of information, data and knowledge, and increasingly for tacit KM activities, acknowledged as early as 1993 by Florance and Matheson (1993). Specific activities, such as organizing workshops and other educational activities at the point of need, facilitating exchange between stakeholders through displays and conferences and the organization of digital literacy (Public and School Libraries) and scholarship (Academic and Legal Libraries) programs have become more prominent in library science over the past two decades.

The following section highlights activities taking place in each of the five core principles of KM:

Knowledge acquisition: Public Libraries are by default responsible for gathering valuable resources to enable knowledge acquisition by its key stakeholders. Researchers rely on libraries to find the latest information on their subject areas and apply this information in their development of new knowledge, libraries play an important part in supporting these activities (Hoffman, 2016). Public Libraries are also responsible for identifying shifts in the relevance of resources for example by keeping track of performance indexes of journals or by signposting relevant online material, which aids appropriate acquisition of knowledge.

Knowledge organization: The acquired resources have to be organized in a manner that enables retrieval by stakeholders. In this process Public Library is responsible for appropriate storage, providing access to resources, ensuring fair distribution of resources and developing new methods for retrieval. It is (often) also responsible for creating awareness of new resources and organizing the promotion of knowledge created within the organization, for example by recommending optimal journals for publication impact or by organizing and publishing newsletters and updates within the organization.

Knowledge retention: Most Public Libraries have different types of archival support available. Online repositories are an important part of developing access to knowledge and information created throughout the organization (Bangani, 2018; Arlitsch & Grant, 2018). Increasingly libraries are also involved with large scale research data storage and retrieval projects (Cox et al., 2017) and traditionally have facilitated access to data and information in expired formats, such as microfiche or cassettes.

Knowledge sharing: Open Access is pushing the agenda for accessible research output and this has a major impact on the role of libraries in sharing knowledge to a far greater audience (Farida et al., 2015). To aid with the sharing of research output, libraries utilize the aforementioned online repositories, provide advice and guidance on Open Access Journals and other means of open access publication (Sabharwal & Natal, 2017) and increasingly, through the provision of scholarly communication departments, provide training and development opportunities to

researchers in achieving more success in getting their research output published, either through traditional channels, or by facilitating access to appropriate media and events.

Knowledge generation: Through scholarly communication and digital scholarship services, as well as more traditional support, libraries are increasingly involved as key stakeholders for researchers within their host institutions (Hoffman, 2016). Public Libraries facilitate multi-disciplinary events and act as a link between researchers and library users who might not be aware of each other's existence but encounter each other through, for example, the online repository of the host institution, or through scholarly communication training events. Subject and legal librarians are traditionally involved with research projects to aid access to appropriate resources and in some cases help develop the research by (co--) conducting literature reviews and analysis.

All these activities demonstrate that Public Libraries are already contributing to core KM activities in organizations, and, as Florance and Matheson (1993) stated; library staff are knowledge workers that play an important role in the development of KM activities. It is therefore important that KM plays a part in the education of future librarians.

Roles of Public Libraries towards Enhancing Knowledge Management

In light of current developments, some prospective areas of Public Library activity require the use of modern administrative techniques and methods. The important point is that, Public Library administrators and staff should develop an attitude and approach towards inculcating a culture necessary for good library management.

Library information management is carried out through a set of essential administrative skills and functions. This includes:

1. 1. Interpersonal skills
2. 2. Information skills
3. 3. Decisions skills

Nevertheless, Public Library professionals need a different mix of managerial skills to properly manage information. These skills are:

- Technical skills used in the knowledge, methods, processes, and practice techniques specific to performing a job.

- Human skills used to successfully interact with others.

- Conceptual skills that deals with abstract ideas and relationships. It is a mental capacity to understand abstract or general ideas and apply them to a specific situation (Pradhan & Jena, 2013).

In addition, Knowledge Management is vital to the development of the entire community. Public Libraries must be provided with the following to further enhance effective knowledge management:

4. Public Libraries need to update their skills related to technological advancement. They must have the skills to do their daily work. Therefore, efforts must be made to improve Public Libraries through the acquisition of additional skills that will play an important role between technology and physical materials, given that they are from time to time overwhelmed by overwork and other tasks (Sura, 2017).

5. Public Libraries are expected to provide Library 2.0 to improve knowledge management by creating a meeting place online or in the physical world where the needs of library users are met through information and communication (Pandey, 2017).

6. Another way to improve knowledge management is implementing Scribd. Scribd is a new development technology in Silicon Valley that makes it easy to share documents online. Scribd is a great online library where the library can publish their original content. The idea is that in the library there are many documents on their computer that can only they be read by them.

7. Web 2.0 technologies should be used by Public Libraries to provide services, transfer information, interrelate with users, and communicate with age group on a global scale. Boateng, Mbetika and Thomas (2010) in Junaid (2017) put forward that Web 2.0 is a series of trend and tools for Internet use. They further stated that these social and technological innovations allowed for interaction and knowledge gathering through experience and practice on a global scale. Collaboration, social media, and ease of use of this app have dramatically changed the way knowledge is managed.

8. RSS, also known as Rich Site Summary, is the most accepted and simple tool among Web 2.0 technologies. In essence, RSS is XML encoding that allows users to receive website updates without visiting the website. It is an effortless tool used by Public Libraries to manage knowledge by sharing the latest stories and updates from newsgroups, magazines, newspapers, journals etc. (Junaid, 2017).

9. The digital library provides a variety of electronic resources and related technical functions for creating, searching and using information. This knowledge can be accessed by electronic means to provide users with the greatest possible benefit in terms of accessibility and accuracy for many at the same time, in the shortest possible time. With the digital library, users can access it quickly and easily, enhance information sharing, save storage space, and support multimedia content etc. (Babita, 2017).

10. Automation of Public Libraries helps improve Knowledge Management by using computer technology to collect, organize and share information quickly and accurately

as possible using databases and library software such as KOHA, VTLIS, ALICE for Windows, AGORA, HINARI, GREENSTONE, TEEAL, SOUL, etc. These programs and databases help spread knowledge to users and the wider community, for example, around the world (Suleiman, 2017). Networks achieve optimum results with minimal effort. Networking is unavoidable in all academic libraries because users can find resources from other libraries (Mamta, 2017).

11. Social media is used to describe the innovative educational program curricula and display it in many Public Libraries, in order to improve their services. For example, Public Libraries take advantage of the opportunities provided by these social media tools to spread information, promote new publications, through Facebook, Twitter, Academia.edu., Youtube, Flick, researchgate e.t.c. (Shweta, Jaya & Verma 2016; in Suleiman 2018).

Challenges Faced by Public Library towards Enhancing Knowledge Management

Some of the issues hindering enhancing KM in Public Libraries were highlighted as follows:

1. Blackouts: Power cuts or failures are a major challenge for Public Libraries in Kaduna State. Most Public Libraries rely solely on electricity to provide their services, especially when using technology to share or transfer knowledge to users around the world, and because of the corruption the industry faces. The country's electricity has not been friendly to Public Libraries for users to use.

2. Lack of experienced personnel: The shortage of qualified personnel to manage technology that would improve KM is a major problem. Some of these technologies have made their way into the Public Library in Kaduna State, but the right people to administer these technologies are not there because they lack experienced personnel or they do not want to pass their knowledge on to others so that they can't benefit from it.

3. Network problems: Most network installations are weak. Bandwidth is low in terms of speed, which makes it particularly difficult to use and to properly transfer large amounts of knowledge to users of Public Libraries in Kaduna State.

4. Funding: Finance is a very important issue, especially in the context of funding Public Libraries to improve knowledge management. The funds for most Public Libraries in Kaduna State are small, so using this money to cover their expenses is a big problem. Sometimes, this money is not sufficient to add the latest technology to the library or to subscribe to resources that would improve KM.

5. Inadequate Staff Training: Staff should be trained in the latest technologies used to improve KM in Public Libraries of Kaduna State. However, inadequate training of these staff from time to time hinders the library's performance towards improving KM.

Conclusion

In conclusion, it is pertinent to know that KM is a significant factor in Kaduna State Public Libraries, as the knowledge accumulated in the libraries cannot be considered useful until the end user effectively uses it to meet their needs, and this can be only done through appropriate implementation of KM.

Therefore, Public Libraries in Kaduna State must ensure that technology is optimally used to improve effective Knowledge Management. Finally, the management of Kaduna State Library Board are expected to assist Public Libraries in promoting and improving Knowledge Management to assist them in their daily activities.

Way Forward

1. Public Libraries should provide a backup to replenish energy in the event of a power outage. In addition, they should to provide high-precision solar systems and generators that provide stable power.

2. Expert in Information and Communication Technology personnel should be recruited to assist public Libraries in the effective management of information.

3. A fast, high-bandwidth network should be provided in Public Libraries to ensuring rapid knowledge transfer to users in Kaduna State.

4. Government and management of Kaduna State Public Libraries should endeavor to allocate or provide adequate funds to Public Libraries to effectively improve KM. Public Libraries should also look inside to see how they can generate money for the library, whether through solicitations from highly placed members of the society who are library enthusiasts, provision of photocopying machines, binding and printing services for commercial purpose.

5. Staff of Public Libraries in Kaduna State should receive regular training from time to time through workshops, in-service training, seminars, conferences, etc. This would give them the opportunity to be well equipped with advanced technology that matches world standards.

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Introducing data warehouse design for university libraries Case study: Sri Palee campus library

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Abstract

Libraries maintain their information resources in a variety of forms, so their use may be limited. Library information resources are currently being digitized, but they are no longer used for data analytics. But it is to examine how effectively library data can be utilized by using big data technology for libraries, as in other fields. When creating a data warehouse, it appears that a library has two main types of data: collected information in the library and other data, such as reader transactions. All that data can be used for data warehouses. Sri Pali Campus library which has its own collection and other data like transactions, is the domain for this data warehouse. When processing data as appropriate for a data warehouse the challenges to be faced can be seen here as well. Data warehousing benefits the library to make decision-making data exhibits, monitor reader behavior as well as manage the collection accordingly, and integrate library data with the latest technology to expand access.

Keywords: Big data, Data warehouse, Library data, University library

Introduction

Books, journals, research articles and other materials both in physical and electronic media have been collected by libraries. Collection of a library is for researchers and public users to find their information needs. Because of their quantity and variety of format, library data might be effective for efficient use. Though some library's data these days have been digitized, most of them have not been used for big data or data mining technology. It is worth using big data technology for efficient use for users of that kind of isolated data in libraries. Discussions of data mining projects which could have been done using library data, are limited. Some subject specialists believe that database management systems are enough for libraries and that big data or data mining projects are not required. Hence, it is worth highlighting the importance of applying big data technology to the library in order to make the right decision in this regard. Today, Big Data technologies are being used to enhance their predictability and effective and comprehensive decision making in various areas such as education, trade, security and governance etc. This research paper seeks to consider the basic requirements for implementing a Big Data project in association with the Sri Palee University Library and to evaluate the benefits that can be derived from it. In addition, it provides a basic understanding of future library data mining projects.

Objectives

The main objective of this research paper is to point out that big data projects can be also used for libraries like many other fields to support top order management decision making.

The domain for the big data

The database of the Sri Pali University Library is used for this purpose. The library's daily transaction information and reader suggestions, book purchase lists and most importantly, the library collection is an adequate database for creating a data warehouse. The Sri Palee Campus library initiated its library and information services in July 1999 and currently has a collection of approximately 28,000 books mainly concentrated on subjects pertaining to Performing Arts and Mass Media. Currently, the library membership consists of 650 undergraduates, 78 Academic staff members, and 135 Nonacademic staff members of the Sri Palee Campus. The visiting academic staff is eligible for library membership with a refundable deposit for borrowing facilities. The library consists of the Permanent Reference section, Reference section, reading room, Lending section, Periodicals section, and the reading capacity is sixty. Library management system is Alice for windows.

Challenges for the project

Volume

The amount of data available in the library for a Big Data project is minimal compared to any other field for such a task. Everyday data collection in the library is not as massive as in a bank or a telephone company. The library has a database of about 28,000 and about a thousand transactions take place daily. Accordingly, the library's current collection of information has not been virtually translated, but it is a vast collection of data. So quantitatively, library data can be seen to be a volume that is described as the first challenge of the big data concept.

Velocity

It covers the speed at which data is created, speed of storing data, speed of analyzing data. According to that library has usually done more than a thousand transactions and at the same time data will save in a server.

Veracity

Data Veracity means the accuracy of the data. When thousands and thousands of pieces of information are collected, some may have problems with their accuracy. The same is true of library data. For example, the accuracy of some reader information may be questionable. In addition, there may be errors in the entry of bibliographic information and incorrect presentations of information by some authors.

Data warehouse design

Data warehouse is a collection of numerous data that are non-updatable, integrated and historical data having time variant, to support decision making. The process of building a data warehouse from the source system is extraction, transformation and loading (ETL). In this process, data must be clean in order to retrieve good data quality. When considering library day-to-day activities in relational databases, there may be invalid telephone numbers, invalid book codes etc. Clearing that kind of errors, ETL process will put data in a staging area, and then transform and load it into a data warehouse. In this process is to make a dimensional data model in which each dimension table has a surrogate key. And the fact table for all of them.

In order to make a data warehouse there are few steps that consist of separate tasks to fulfill.

- Selecting the process- it means determining the subjects. Here it is library transactions that have 3 processes: book lending, return and procurements.

- Selecting the grains- what grains are to be represented by the fact table? Book lending, book procurement and book status will be represented here.

- Recognizing the dimension- Determination of dimensions that are related to the fact tables is the task in this step. Here we identified what they are. (fig.1)

- Round out the dimension- consideration of every dimension table is the task here. We had 9-dimension tables. (fig.2)

- Duration of database- in this step, it was selected last 22 years.

- Design the physical database- After completing all above steps, this is the final design data warehouse for the sri palee campus library.
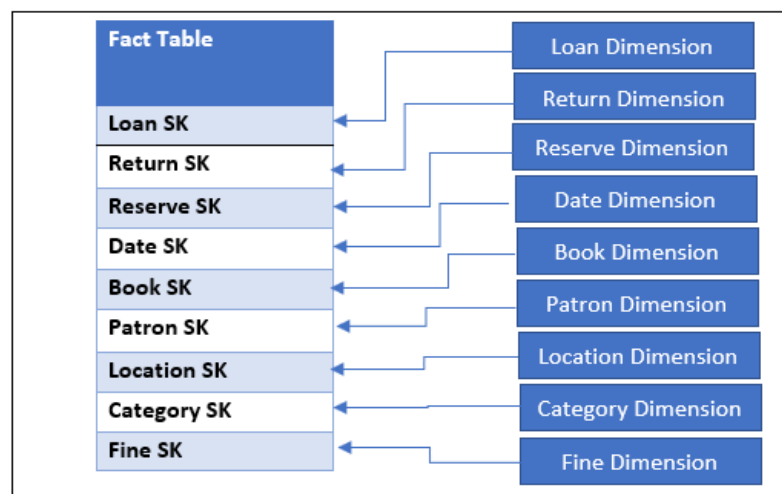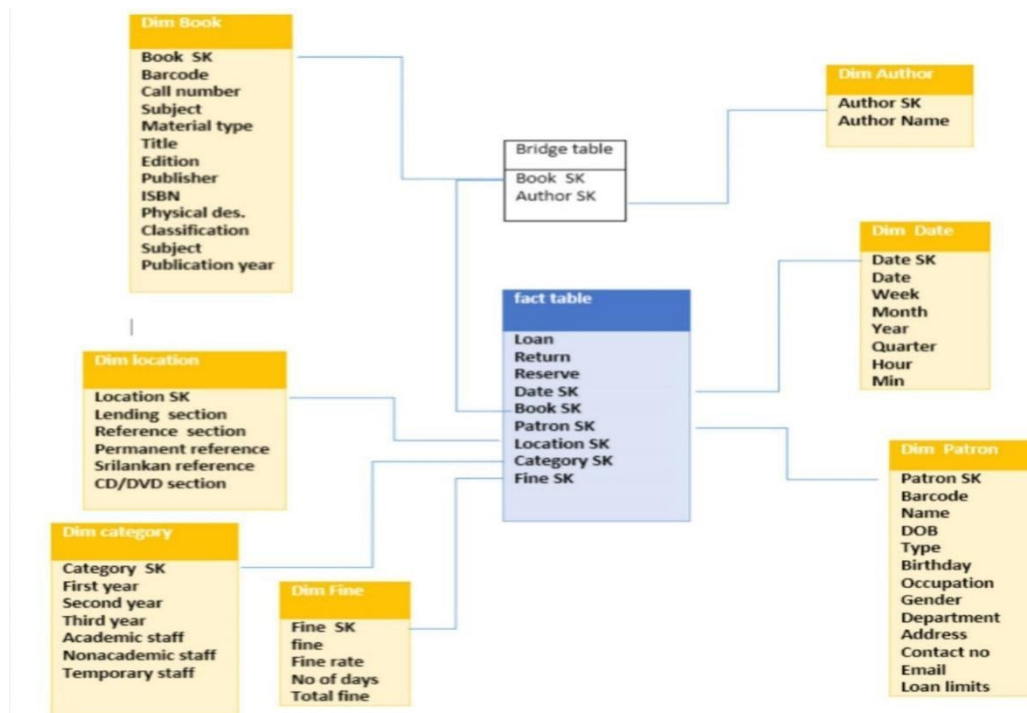

Fig.1 Fact table

Fig.1. Data Warehouse design for Library system fact table and dimension tables

Advantages of using dw for libraries

As we mentioned previously, many establishments such as the government, hospitals, and businesses are analyzing big data for their improvement. For example, because of the prevention of illness, hospitals use big data, finding improved ways to sell products, and business bodies use it. So, what can it do for the library? The Following are some of them.

Decision making

This is the main purpose of using big data analytics. Decisions could be more useful when they are based on the data. For example, analyzing data on library transactions or searches can provide ideas for optimizing its collection. This approach would improve reader satisfaction and the effective use of library resources.

User Behavior study

For the library big data, user activities tracking data is possible in addition to information of library collection. After collecting a large amount of user behavioral data, the library could analyze it and improve overall user experience as well.

Data visualization

The library data could be selected and visualized as per the user's needs. That visualization will display various collections of the library as well as unbalance each of them. Moreover, such an approach can be considered when allocating funds and making plans in collection

development.

New Data Format

Accessibility and sharing of the information are main goals of the library. In order to achieve that, the data medium must be changed. Ancient sources in particular need to be digitized. This will allow them to communicate and access information more efficiently. Another advantage from this is library data can be used with other online resources. It means library data is going to be linked data like google and facebook.

Conclusion

Although some argue that it is not yet necessary to create a data warehouse for libraries, Data Warehouse provides more effective access and many more benefits than a relational database. In addition to the information available in the library, daily transaction data and reader information can also be used for data warehouses. The library of the Sri Palee Campus has a collection of over **28,000** books and nearly a thousand readers, and data on their behavior was used to create the data warehouse. There were a number of different challenges. After overcoming the challenges, it could be done in a few steps. This research is a blueprint for the future library big data projects.

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Role of community center libraries during covid 19 pandemic in jaffna district

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Abstract

It has revealed that the community library played an important role in reading activities during Covid 19 Pandemic. This study was conducted to analyze the impact of community center library on reading service of people in the Jaffna division during Covid 19. A structured questionnaire was distributed through social media among the librarian for data collection. Response rate was 98%. The finding of the study revealed that, the community center library plays positive roles on student learning activities in the travel band time. According to the study number of users in the community library increased by 67% during travel band period and the highest percentage (33%) of them was students. Students struggle more for study place during lockdown. Study individually is the main reason for using the library which is for preparing short notes and practicing past paper questions. Textbooks, past and model papers for general examination are the most frequently used library materials. There also increase the number of readers because of two reasons. First to read about Covid 19 daily update news and next band for travelling far increase emergent readers. To enhance independent learning, develop skill for reading and taking notes, create a new idea for a particular topic in various subjects, and access relevant materials for understanding the subject are the major role of community center library during lock down period. This time library face challenges in poor space and collection to satisfy readers. By upgrading the library resources and services in local community center libraries the government authority needs to allocate more funds for improving the library infra structures, collection and acquiring new technology for handling library functions.

Key words; *Community center libraries, Covid 19, Library service*

Introduction

Literacy levels affect the information behavior of the community. Libraries play major role for the social and economic development of the community through its provision of information on library service. Community center libraries considered as the heart of the rural area because they contribute to the improvement of the literacy level of the life of the rural people. There are 907 community centers in Jaffna and the 80 centers associated with Libraries. The goal of these libraries is to provide facilities to cater to the rural population in order to send their leisure time usefully and function as reader center for new paper and magazines. There are 100 to 1000 numbers of books which are classified according to the subject title. The collections of these libraries are story books, novels, lesson book, past paper book and magazines. Mainly they used for news reading. Main objective of these types of Libraries are aid generally in the encroachment of knowledge and use the leisure e duty of these libraries to attract them by providing suitable material for reading and help them in gaining knowledge for lifelong

education. During Covid 19 pandemic normal situation have been changed. People avoid travelling increase leisure time increases the use of community center libraries.

Covid 19 crisis

World never face this type of crisis due to Covid 19 virus. It imposes to close all the organizations including schools and libraries. It has been confirmed that the virus is communicable can transfer from one person to other while speaking, coughing or sneezing. Libraries noted as special place of public contact highly expose to infection in general. Initially the spreading and death is low compare to other country then from the July end it increases drastically cause severe death. Government of Sri Lank introduces various sequential measures to improve social distance such as work from home, reduce public gathering, travel bans and curfew. Although the community center libraries are serve for rural and create awareness among the people even in critical situation. Academic and other libraries strategic to new normal situation the user of community center libraries increases.

Impact of Covid 19 in Libraries

Due to unannounced indefinite lockdown all the libraries were shut down but local libraries maintain the hygiene and cleanness of the library. Later even other libraries closed, the fist and most library service provide by community center libraries. Initially they issue books and news paper to people help to create awareness among rural society and send leisure time effectively. It is possible to exchange the books with in their community because of small distance. They follow mobile services to readers with home. In the stage of travelling limitation, the number of users increases dramatically. It favors to do the service with maintaining social distance and health issues. Small libraries serve people as usual and fulfill the readers.

Objective of this study

- To explore the library service by community center library during lock down and travel ban period.

- To enhance reading and combine studying

- To be prepare these libraries in new normal life

Material and Methods

Survey method was employed for carrying out the study. Structured questionnaire were mailed to the Librarians of the University libraries under study through e-mail as well as through social media The collected data were scrutinized tabulated and analyzed using MS-Excel spreadsheet.

Data analysis and Results

Facilitate to student education and literacy

During Covid 19 students compose the largest and most helpless section of suffers. Schools and education institution are closed. Homes are noise with family members. They are difficult to get knowledge and information. So students depend on libraries which are close to their residence. In that way community center library serve well with required books issued at their library pass paper books for further reading. In addition most of the students use library for self learning maintaining social distance. Under this unwelcome scenario, the librarians has very crucial role to play with satisfying information and students education.

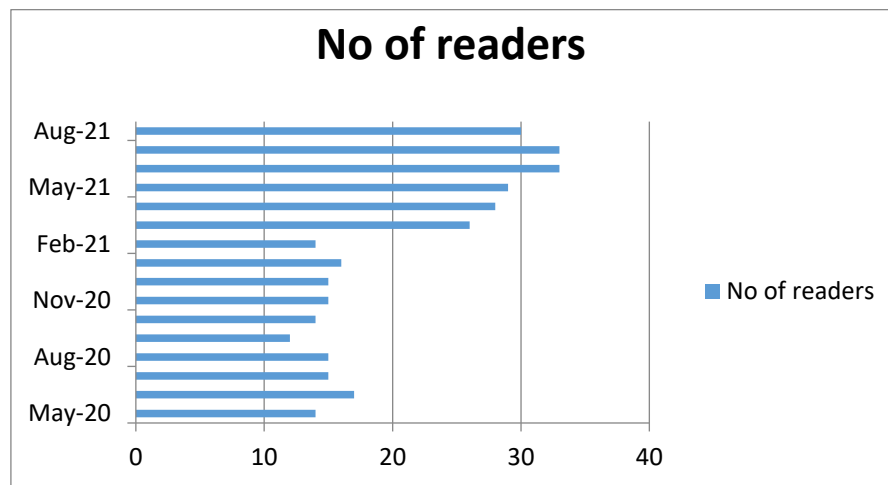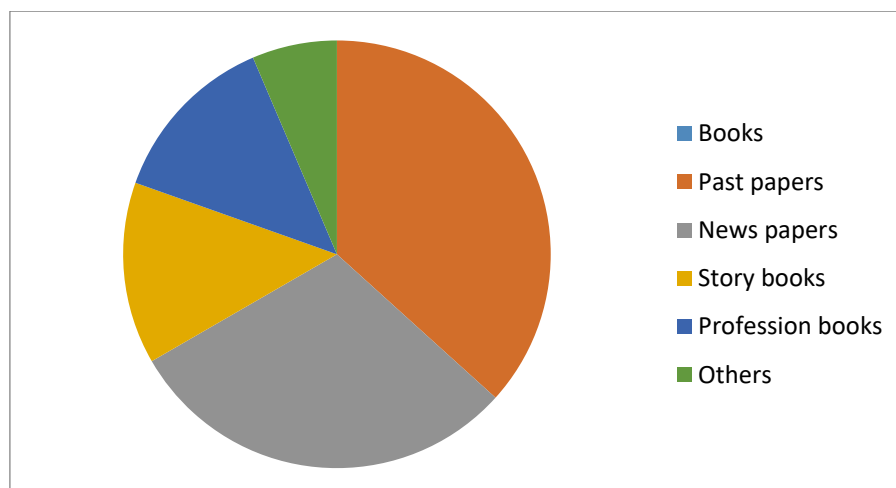*Figure 1: Average number of readers in community center library*

Figure 2: Collection read by readers

Social role

In addition to work normal service, libraries contributing in the community disease control prevention awareness programmes. Notices news paper and leaf lets use to create awareness among rural people. They provide information to people about prevention measure changes in

spread out of Covid 19.

Satisfying news reader

The main goal of the library is flat for news readers because of curfew people are accumulating in home create family problem within members. It is better to read interesting book send leisure time effectively. Due to that community center library issue reading books from home to home and open part time for book exchange. This help to satisfy readers in time which in time which has no other way to spend.

Challenges in providing library service during Covid 19

In this critical situation all the libraries closed and then think for alternative online way to provide service. All the time community center libraries continue their service better. Travel ban increase the library users but the library building not enough to serve for all.   Readers from different age group expect variety of books. It is not available in local libraries. Poor collection of books is major drawback in these libraries.

Conclusion

From the above results it was found that community center local libraries serve to readers continuously in direct way. It is in the rural places, help to study news reading and leisure time for area people. It is also challenge to satisfy readers with poor collection and low space. It is important to establish and develop with collection. Government has considered about the local libraries to do better service in restriction period.

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Collaborative measures and Authorship patterns of Shrimp culture research publications– special focus to SCOPUS database

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Abstract

The study examined the collaborative measures and authorship pattern of research publications in shrimp culture available in SCOPUS database during 2009 to 2019. The aim of this study is to identify collaborative measures like degree of collaboration, collaborative coefficient and collaborative index of these publications. A total of 3851 bibliographic records of publications were downloaded and analyzed in a bibliometric analytical method using R-studio software and MS excel. The analysis of bibliographic records of the total 3851 publications reveals that the entire publications were contributed by 18489 authors and among the type of publications, Journal articles occupied predominant position sharing 88.68% (n = 3415) percent of total study data. Contribution of Multi authors is high compared to single authored publications. Remarkable increase has been observed in the trend of authorship pattern and Degree of collaboration and Collaboration coefficient and Collaboration index in research publications of shrimp culture during the study period. Out of 3851 papers, 165 (4.28%) papers were contributed by single authors and rest of the publications were authored by multi authors. The Degree of collaboration has been increased from 0.924 in 2009 to 0.964 in 2019. Highest value of degree of collaboration - 0.979 was observed in 2017. The Collaborative coefficient has been increased from 0.67 in 2009 to 0.72 in 2019. Collaboration index of research publications increased from 4.12 in 2009 to 8.28 in 2019. The average collaboration index was 5.78 during the study span.

Keywords: Authorship, collaborative measures, degree of collaboration, collaborative coefficient, collaborative index

Introduction

The nations of the world are realizing the importance of aquaculture and implementing related research and development projects and the number of researchers related to them is also increasing. Due to insufficient production of shrimp culture, there is a need for the development of these research studies at global level. Authorship studies are a kind of bibliometric studies focused on authorship patterns. They describe authorship patterns of articles and authorship characteristics such as Degree of collaboration, Collaboration coefficient and Collaboration index of a specific group of authors. The starting point in an authorship study was to select a group of publications.

Objectives

The principal objective of this study is to identify collaborative measures and authorship patterns of research publications in shrimp culture available in SCOPUS database. The specific

objectives of the study are to identify the proportion of single vs. multi authored papers and to determine various significant aspects of collaborative measures like degree of collaboration, collaborative coefficient and collaborative index of these publications.

Literature Review

Numerous Bibliometric studies were focused on Aquaculture Manikarachchi, (2018); Natale et al (2012). Some of them focused on publication output of a specific country Sylvain C. (1993). Some more focused on a particular database or Journals Jan, (2017); Kanakaraj (2016). Studies focused on authorship patterns were conducted to analyze the authorship characteristics of a group of authors. Navaneetha krishnan, Subramanian, (2014). The concept of collaborative measures and authorship pattern is an important factor in bibliometric analysis. Different formulas are used in authorship studies. The degree of collaboration is defined as the ratio of the number of collaborative research papers to the total number of research papers in the discipline during a certain period of time Subramanyan, (1983). Collaborative coefficient is a measure of collaboration in research that reflects both the mean number of authors per paper as well as the proportion of multi-authored papers Savanur, Srikanth, (2010). Collaborative index is used to compare the extent of collaboration in two fields (or subfields) or to show the trend towards multiple authorships in a discipline. The mean number of authors per paper, termed the Collaborative Index by Lawani (1980) as cited by Ajiferuke, Burell, & Tague, (1988).

Methodology

The research method of this study was Bibliometric analytical method. In this study Bibliometric analytical software namely Bibliometrix - a R statistical package for analyzing and visualizing the bibliographic data from WoS and Scopus databases was used to identify authorship patterns and characteristics Aria, M., & Cuccurullo, C. (2017). The required data for the analysis of this study was collected from SCOPUS database, considering the availability and reliability of data. The process of selection of population of publications was as follows: Publication year - '2009-2019' Document type – "ALL" and the subject areas 'Shrimp culture', 'Shrimp farming". A total of 3851 bibliographic records of publications were downloaded. Collected data was exported in RIS format with complete bibliographic records for analysis. Degree of Collaboration, Collaboration coefficient and Collaboration index of these publications were identified using R-studio software and MS excel.

Results & Conclusion

The analysis of bibliographic records of the total 3851 publications reveals that the entire publications were contributed by 18489 authors and among the type of publications, Journal articles occupied predominant position sharing 88.68% (n = 3415) percent of total study data.

Out of 3851 papers, 165 (4.28%) papers were contributed by single authors and rest of the publications were authored by multi authors. Majority of publications (18.85%) were contributed by four authors. The value of Degree of collaboration was 0.924 in 2009 and later it increased to 0.964 in the year 2019. Highest value of degree of collaboration - 0.979 was observed in 2017.

Table 1 - Year Wise distribution of Degree of Collaboration

Year	Total publications	Single authored	Muli authored	Degree of Collaboration
2009	291	22	269	0.924
2010	312	13	299	0.958
2011	324	13	311	0.960
2012	334	18	316	0.946
2013	327	20	307	0.939
2014	325	15	310	0.954
2015	316	10	306	0.968
2016	339	15	324	0.956
2017	381	8	373	0.979
2018	430	14	416	0.967
2019	472	17	455	0.964

The values of Collaboration coefficient have been increased from 0.67 in 2009 to 0.74 in 2019 during the study period. The overall average of collaboration coefficients was 0.72 and high collaboration observed in 2017 with 0.76.

Table 1 - Year Wise distribution of Collaboration Coefficient

Year	1	2	3	4	5	6	7	8	9	9<	Total	Collaboration Coefficient(CC)
2009	22	43	63	60	38	25	22	9	4	5	291	0.67
2010	13	40	54	78	36	48	21	8	7	7	312	0.71
2011	13	41	69	77	59	29	18	8	6	4	324	0.70
2012	18	54	50	59	49	42	27	15	10	10	334	0.70
2013	20	43	48	60	69	25	37	7	12	6	327	0.70
2014	15	47	50	60	46	40	32	11	14	10	325	0.71
2015	10	32	45	64	56	50	23	18	5	13	316	0.73
2016	15	29	53	57	58	56	26	18	8	19	339	0.73
2017	8	30	48	63	62	67	35	32	13	23	381	0.76
2018	14	36	60	76	69	56	50	26	19	24	430	0.75
2019	17	41	69	72	81	80	50	25	17	20	472	0.74
Total	165	436	609	726	623	508	341	177	115	140	3851	0.72
%	4.3	11.3	15.8	18.9	16.2	13.5	8.9	4.6	3.0	3.7		
Ave	15.0	39.6	55.4	66.0	56.6	47.1	31.0	16.1	10.5	12.8		

The values of the Collaboration index of research publications in shrimp culture have increased during the study period. In 2009 it was 4.12 which increased to 8.28 in 2019. The average collaborative index was 5.78 during the study period.

Conclusion

Hence it has been concluded that contribution of Multi authors is high compared to single authored publications and there was a remarkable increase in the trend of authorship pattern and degree of collaboration and collaboration index in research publications of shrimp culture during the study span.

Recommendations

Generally collaborative measures and authorship patterns of research articles or documents are most important to the researchers and scientists of the country. This study recommends more deep research on collaborative measures and authorship patterns of research articles published at National level to increase the research productivity and visibility of Sri Lankan authors.

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Factors influencing outreach services for empowering underprivileged people by university libraries in sri lanka: librarian's perception

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Abstract

Outreach has become a crucial element of library services in academic libraries. The paper deliberates various mechanisms of outreach programmess of university libraries in Sri Lanka. The study mainly focuses in categorizing the role of remaining outreach (OR) services in University libraries identify the objectives and outcomes of the OR services which imbued of influence created over the communities through university library OR services and culminate the potential obstacles in implementing OR services in Sri Lankan academic libraries and explore the remedial measures for those problems. The study highlights that in this changing landscape university librarians elaborate to provide specific directions and conduct the OR programmes as an ad hoc programme of the library. The Sri Lankan university librarians are competent to provide specific directions for making this endeavor worthwhile and sustainable in the long run through OR services and contribute to empower the disadvantaged people and national development. Time limitation (53%), human resources (60%), technology (80%) and communication, coordination and collaboration(80%) are the factors that manipulated the realization of OR services of university libraries. Based on the four influencing aspects found in this study, the finding suggests that, librarians can pursue these opportunities through broad-based direction support across the diverse services.

Keywords: *Outreach services, university libraries, community development, services to underprivileged people, services to disadvantaged people*

Introduction

University, the highest academy of scholars, is the focal point of higher education. It is a free space which teaches not only formal subjects but also permits expansion of the mind by unhindered interaction with large diverse groups of people for the positive benefit and advancement of all mankind. It also plays a significant role in accomplishing not only higher education but also research requirements according to the needs of the dynamic world. In achieving the vision of the university the library supports immensely providing the pertinent facts and information. The mission of the academic libraries is to support the educational and research activities of their parent institution through the acquisition of collections, provision of services, and user education. Providing support for teaching, learning and research is the focus of academic libraries. Academic libraries are vital to the success of the academic enterprise of their institutions whose research and teaching agenda are greatly enriched by libraries whose collections are broad, rich and diverse. It is the one and only systematic information line established, supported and administered by the university to meet the information needs of its students supporting its instructional research and service programmes. It opens up minds and

inspires users to see vision because mind is the center point where progress originates. It is impossible to survive without this vital organ, so that the library has become the 'heart of the university'.

The library connects directly with the university education and also it renders a great service to the society. Many scholars of Library and Information Science (LIS) have defined objectives of the libraries in various ways. Some specialists in LIS such as Dr. S.R. Ranganathan, Deshpanday (1979); Wilson and Touber (1956) have presented the objectives of the University libraries highlighting the importance of university libraries. According to their presentations, special information services to appropriate segments of the wider community with outreach activities of the university libraries take a significant part of the contribution to the community development. The library outreach services or extension services may be of internal and external type.

As Weibel (1982) thought, the term 'outreach' is used in library literature; a specific definition is not readily offered up to the mid-sixties. Outreach is often used interchangeably with synonyms such as extension and the phrases "service to the disadvantaged" or "un served", and "community" or "inter-city service". Modifications in goals or type of library service described can be seen over the period examined, while the interchangeability of terms and the lack of specificity of their definition remains.

Library outreach is a challenging concept to express. It is not just one process; there are as many ways to afford outreach as there are clienteles in a library. Outreach means diverse stuff for children, adults, regular library clientele and non-clienteles, falsehood readers, researchers, and computer users. But in wide-ranging, outreach can be seen as any service or activity that gets clientele or potential clientele interested in a library including various types of themes together with storytelling, good reading habit, mind mapping concept, getting ready for exams and the way of organizing home libraries etc. Librarians have always emphasized helping and serving people as well as organizing and disseminating knowledge to the community for its advancement.

Library outreach

Information is a crucial factor in community development and the ability to use information tools is considered as a source of power. Information is like a pin of national development as suggested by Achitabwino (2007) who later pointed out that for a national to develop it needs to have and provide relevant updated and adequate information on food, security, population, education, family planning, youth empowerment, gender equality, and environment among other sectors. In this study focus on the role of the academic/university libraries transforming development and mentoring their roles in improving society thinking, shaping a knowledgeable

people and impact of academic libraries and economic growth.

Jayasooriya (2011) pointed and that in her paper on University Library services in Sri Lanka; a historical perspective the NILIS (National Institute of Library and Information Science) established affiliated to the University of Colombo in 1999 She has explained the objectives of the NILIS and the 3rd objective was research and disseminate the results to such research through publications, seminars; workshops and extension/ outreach services.

Objective(s) of the research

- to categorize the role of remaining outreach (OR) services in University Libraries

- to identify the objectives and outcomes of the OR services

- to examine the potential obstacles in implementing OR services in Sri Lankan academic libraries and explore the remedial measures for those problems

Methodology

The survey method used for gathering data and only the 15 national university librarians were the sample and self-structured questionnaire used as a data collection instrument.

15 questionnaires distributed through email among all 15 librarians of national universities in Sri Lanka.

Results and discussion

The questionnaire was in three parts. Part 01 elicited background information/ locations of the universities, part 02 elicited OR services of the university libraries, part 03 elicited librarians' perspectives on the factors influencing community focus OR services for empowering disadvantaged people.

The data was presented using simple percentage and frequency counts. Six universities out of 15 universities are located in Western Province. Although demographic data were not submitted by all participants, there was enough data to provide some approximations. Of the 15 university librarians who participated in this study were male (53%) far away from the Western Province (63%) and represented a variety of ethnic groups such as; various religious and strata of the society.

The results indicate that 80% in libraries haven't separated OR section and OR librarian to identify the needs of communities as well as to plan different programmes for different communities and minority of libraries (less than 50%) identified the needs of communities and planned activities to cater to meet their needs. The remaining OR services in university libraries are in Table 1. Majority of programmes were well thought-out by other institutes and the

university librarians accompanied the programmes/ activities as resource persons.

TABLE 1: REMAINING OR SERVICES AND THE COMMUNITIES/ USER CATEGORIES

Name of the Remaining OR Programme / OR service	Community / User category
Role of Teacher librarian	School /teacher librarians
How to organize a school library?	School /teacher librarians
Organizing and Managing Public libraries	Public librarians
Cultural Performance	Rural Community
Book displays	-Do-
Training on library services/ Reader services	Public library staff
Training on library services/ Tech. services	
How to use e-resources for education (IL)?	-Do-
-Do- (IL)	School children (grade 1 – 5)
-Do- (IL)	-Do- (grade 6-8)
-Do- (IL)	-Do- (grade 9-10)
-Do- (IL)	-Do-(grade 11-12)
Counseling	-Do-A/L students (grade 11-12)
How to Market Yourself (Career guidance)	LIS graduate students / Uni. of Kelaniya
Library Training Awareness programme	Pregnant mothers
Awareness programme	Public library staff
Assisting uploading KOHA and training	School library staff
-Do-	Public library users
Book donation programmes	LIS graduates & Diploma holders
Consulting library trainees	Public librarians
Consulting librarians	Public library staff
Consulting library staff	School librarians
Consulting librarians	School librarians and staff, teachers and students
Developing of a school library and conducting information literacy session and Art camp for same school	Public librarians
Library automation & training	Public library staff
Staff training	Outside Researchers
Research Assistance providing information sources	
Training Programmes	Library paraprofessionals
-Do- of LIS	-Do-
-Do- of LIS	Outside Researchers
	Diploma students / SLLA
	-Do- / Uni. of Kelaniya
	Graduate students / Uni. of Kelaniya

The findings also indicate the university librarians affecting barriers for implementing OR services; time limitation (53%) is one of huge barriers for non-provision of seminars/ workshops as they requested, limitations of professional human resources (60%) to be assigned OR activities as they requested, due to COVID 19 pandemic, the limited professional staff has to be developed to offer services in online platform but rural communities are lacking behind the technology (80%) and they couldn't get the benefit of the OR services and lack of communication, coordination and collaboration (80%).

In this case, librarian should take actions to fulfill cadres of the library, planning OR programmes which can be conducted as teamwork of changing attitudes of library staff and encourage to team works, make a good impression about university libraries and librarian profession, helps to upgrade the lives of general public by make them aware of information they need to solve their day to day issues and make the library as the bridge to meet different communities and it will be highly beneficial for the peace of the country. This approach allows the community to become self-sufficient (Hawkins, 2005) and human capital.

Conclusion and recommendations

In this changing landscape university librarians elaborate to provide specific directions and conduct the OR programmes as an ad hoc programme of the library. The Srilankan university librarians are competent to provide specific directions for making this attempt worthwhile and sustainable in the long run through community focused OR services and contribute to empower the disadvantaged people and the national development. Time limitation, human resources, technology and communication, coordination and collaboration are the facts that influenced realizing OR services of university libraries. Based on the four influencing aspects found in this study, the finding suggests that, librarians can pursue these opportunities through broad-based direction support across the diverse service; 1. Changing library's image, role, services 2. Supporting communities is interesting, enjoyable and the like 3. Making aware of the technology 4. Building relationships with professional communities 5. Being seen as a source of support and 6. Enlightening other aspects of the carrier.

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Sri Lankan Library Step Forward Through COVID-19 Crisis; Lessons from Global Context and Practice-Based Learning

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Abstract

The study focuses on global research on the challenges faced by libraries during the COVID-19 pandemic time and the strategies and innovations used or suggested to overcome those challenges. Most of the libraries and educational institutions switched to the virtual setting and offered online services with the help of technology. The findings of a comprehensive literature review were reported here by the authors while comparing and stating their experience at the library of the Uva Wellassa University of Sri Lanka. Researchers found out that during the COVID-19 crisis, Libraries make maximum use of digital technologies to provide and expand services for patrons. They have also conducted programs for partons to develop their information literacy and especially digital literacy skills. Moreover, they impose suitable safety measures while providing physical library services. Libraries have so far succeeded in ensuring their service continuity during this unprecedented global crisis.

Keywords: Academic Library, Covid-19, Library Services

Introduction

Libraries around the world are challenged by the ongoing crisis of the COVID-19 pandemic. Library administration is forced to make hard choices when it comes to serving the user and saving them from potential risks at the same time. Governments are taking drastic measures to restrict interaction among humans to limit the spread of the virus. These restrictions are working as a positive trigger and shedding light on the innovative ways of providing library services previously unthought of. Literature for the past one and half years reported different library case studies from many geographical locations. They bring up answers since they report solving different types of issues faced by those libraries during the COVID-19 period. The International Federation of Library Associations and Institutions (IFLA) developed key resources that tackle major issues facing all libraries (remote services, hygiene, handling materials, staying at home, closing or reopening, etc.) (IFLA,2020). At the global level, the American Library Association (ALA) has put together a comprehensive guide and best practices and protocols for librarians to refer to; the ALA Covid-19 recovery center includes guidelines for reopening the Libraries by State (ALA, 2020a). A comprehensive analysis of related research literature can formulate a proper mechanism for the functioning of the global library system in the new normal condition. The authors focus on recognizing challenges faced by the libraries and solutions derived to solve those problems.

Objective

The main objective of this research is to investigate the problems faced by global libraries during the COVID-19 pandemic and explore the solutions and suggestions proposed by those libraries, through a thorough literature review and exploring the lessons from practical experiences of Uva Wellassa University Library in Sri Lanka.

Methodology

The researchers search for research literature from subject-related databases, namely, "Emerald insight", "Taylor & Francis Online". The researchers limited the search period from 2020.01.01 to 2021.08.30. The search keywords "COVID-19" or "Corona Virus" or "Pandemic" AND "Library" are used to search the databases. Evaluation of the content is conducted by thematic coding. Challenges, Solutions, Innovation, and Suggestions were derived as the main thematic categories.

The scholarly database search period was from January 01, 2020, to October 30, 2021. The databases which are searched for this purpose are Emerald insight, Taylor & Francis Online, and Oxford University Press. Since targeted subject matter was not found in Oxford University Press, the search was limited to the other two databases.

An Inclusion and exclusion criteria are followed to access the research. From the findings of research literature focusing only on the public library, settings were filtered out and academic library settings were considered. If both public and academic library settings were described, then accepted for analysis. The content focuses on challenges faced by the library and innovation strategies and suggestions to progress with library services were considered.

As the second section of the research, the practical experiences of the Uva Wellassa University Library were reported according to the developed thematic format. Suggestions and sections which need further improvement and future recommendations are reported to formulate future library guidelines under the new normal situation.

Results and discussion

Research literature related to the global context

Database - Emerald insight, for Keywords "COVID-19" or "Corona Virus" or "Pandemic" 263 results. For Keywords "Library" more than 7000 results. For the Keywords "COVID-19" or "Corona Virus" or "Pandemic" AND "Library" 60 results were obtained.

Database - Taylor & Francis Online, for Keywords "COVID-19" or "Corona Virus" or "Pandemic" 1,461 results. For Keywords "Library" 27,549 results. For the Keywords "COVID-19" or "Corona Virus" or "Pandemic" AND "Library" 162 results were obtained.

Findings from Literature selected through the inclusion and exclusion criteria described in the methodology section by the researchers. The findings are stated below according to the thematic categorization.

- Temiz, S., & Salelkar, L. P. (2020) reported findings from 39 Swedish university libraries,) Europe.

Challenges - They reported the COVID-19 situation-related challenges such as limited working hours, shutting down physical libraries for the general public, and unmanning operations.

Solutions - They reported closing of library spaces and only offering to borrow or return books at a counter, Pre-booking the library space by the users, implementing quarantine policies for returned books as solutions for physical library service maintenance.

They also reported implementing plans to offer remote services, make arrangements for all staff to work remotely, allow access to books without human contact to restrict physical contact.

Innovation - Using online tools and promote library services online to limit the number of visiting the libraries

Suggestions - Suggest the Government in providing financial support to the libraries to overcome the COVID-19 crisis

- In his research Mbambo-Thata, B. (2020) reported the COVID-19 pandemic practices from the National University of Lesotho Library from Africa.

Challenges - Full Closure of University Library and COVID-19 related restrictions imposed by their government were reported as challenges. Physical library access was restricted.

Solutions - The university library increased access to digital content and broadened digital services.

Innovation - The library subscribed to several platforms and databases of e-books and e-journals and has created its institutional digital library. Acquire resources via a country license through Lesotho Library and Information Consortium. Free Scholarly materials were also incorporated. to the collection. Off-campus access to digital resources was provided

Conducted digital literacy programs for the users.

Suggestions - Implementations should incorporate considering both providing access to resources and providing knowledge to information access through digital literacy.

- Louderback, P. (2021) in his research reported about the Library, Northeastern State University, Broken Arrow, USA

Challenges - Library staffing, workflow, and budgets were reported as challenging. Reduced

hours of operation, full and partial closure of the libraries were reported.

Solutions - Online-based activities and providing access to digital resources in the place of physical resources. Follow strict safety guidelines when physical access is provided. Sanitization of library spaces and all other safety guidelines were followed. Borrowed physical item quarantine process was conducted when received back.

Innovation - Conducted online orientations for teaching, Creation of more digital content for users, All instructional sessions made online, Online reference service conducted via IvyBot chat. The online presence of librarians for the patrons increased

Suggestions - Conversion of library services to online mode, creation of digital content, and online availability of staff for the users.

- The research findings from the University of Southern Queensland, Australia, was reported by Thorpe, C., & Howlett, A. (2021)

Challenges - Remote working arrangements and providing services to off-campus users.

Solutions - Documentation of COVID-19 based practices throughout the time as a roadmap to plan. Conversion of physical services to online-based services and introducing new performance measures to monitor the service quality of newly introduced services.

Innovation - A timeline visualization for USQ Library COVID-19 response. Document and position the Access information resources and library services via digital channels and expansion of e-resources. Conduct Online Study Support sessions. Introducing new performance measures to evaluate the impact of transformed services.

Suggestions - Documentation of practical experiences libraries in this new normal situation to forecast and plan. Introduction of e-based services and expansion of e-resources. Introducing new performance measures concerning changes.

- Ma, L. F. (2020) in his research state the experiences of the Chinese University of Hong Kong Library, Asia.

Challenges - Work from home measures and restrictions which were imposed on Public gatherings were stated as challenges.

Solutions - Providing waivers for available physical resource use guidelines, support the users online.

Innovation - Flexibility in extending the borrowing privilege of physical items, an automatic extension of the loan period, automatic renewal, waivers for overdue fines. Zoom-with-a-Librarian to provide remote support from Library staff when users are off-campus. Temporary

Student Notebook Loan Scheme Digital exhibitions for collection promotion on the website.

Suggestions - Expand online services and support students to access them by loaning them the devices. Provide remote access to users to reach librarians for support. Imposed relaxation to available physical material use guidelines.

- Rafiq, M., Batool, S. H., Ali, A. F., & Ullah, M. (2021) reported findings from 07 University Libraries of Pakistan, Asia

Challenges - The study reports that the majority of the university libraries were physically closed. Library staff worked from home. Overburden of work due to 24/7 connectivity. A formal working policy addressing the new working routines was not available. The digital divide, lack of digital literacy skills, and slow internet speed were the major challenges to access digital information

Solutions - Conversion from physical to online mode

Innovation - Libraries revamped their web pages, reassigned resources, and planned robust online offerings.

Suggestions - Suggested governments increasing the investment and prioritize the digital transformation in their societies and improve internet penetration to the digital divide.

Suggested libraries to develop standard operating procedures (SOPs) for staff and library users and invest in getting new technologies, infrastructure, systems, and staff development to be able to serve their users in emerging online environments.

Suggest offering off-campus access to all their e-resources and also to initiate digitization initiatives and provide online access to content in digital formats.

Suggest libraries reviewing their web presence.

Practice-Based Lessons of Uva Wellassa University Library

Challenges - The Uva Wellassa University Library faced similar challenges to most of the global academic libraries considered in this research. The library was physically closed due to restrictions imposed from time to time. Moreover, work from home and managing the library with limited staff were other challenges. Digital divide, no or limited access to the internet by staff and the patrons, unavailability of suitable devices to access online resources are some of the challenges related to the conversion of physical services to digital services. Lack of digital literacy and information literacy of newly recruited children was also a challenge when providing online services. When staff based at the home, deficiency of technical skills, lacking the suitable devices to provide services, and problems associated with internet penetration were noted.

Solutions - Implementation of safety guidelines for the physical library service maintenance,

Innovation - Implemented a COVID-19 guideline for the smooth functioning of Uva Wellassa University Library after reviewing the safety guidelines provided by IFLA, Sri Lanka Health Authorities, and University. Through the guideline, most risk zones of the library were recognized and suitable safety measures were imposed. Thorough cleaning and sanitization practices were followed while imposing safety measures for the staff. Distance demarcating labels and awareness notices were set up and seating arrangements were reduced for maximum safety.

For the continuation of the physical library services, quarantine racks were set up to hold the receiving books to the library. Time of book borrowing was extended and fines waived according to the restrictions imposed periods. Pre-booking was encouraged to limit the users at the facility. To monitor the movement of patrons to the facility Identity Card barcode reading system was set up at the entrance. The library digitized some of its collections such as past paper collection and Dissertation abstract collection to provide online access. Digital Repository and University Library Web Page were improved to provide updated information and updates related to new virtual resources and library programs. Ask a Librarian service was implemented for the library to reach out to the user through Facebook, YouTube, Messenger, and e-mail and reach out 24/7 to provide librarian guidance. The library expanded its services by providing off-campus access to the library's digital resources.

The library developed digital content and guidance videos to facilitate the user while arranging online training programs and workshops to enhance the digital literacy skills of the patrons. Moreover, training programs were conducted to support staff to work from home through cloud-based applications and social media applications.

Solutions - It is important to record the practice-based lessons learned from the library to forecast and plan for the new normal situation. this will provide a clear idea for the administration to work and plan on different situations caused due to the COVID-19 situation.

Digital collections, digitization, and subscription to e-resources should be further encouraged.

Low-cost copy and dissemination practices should be implemented as a solution for the digital divide. Internet facilities, technology-based infrastructure should be enhanced to support the new normal developments. Device loan-out systems should be implemented to support off-campus patrons.

Conclusion

The global literature, as well as the practical experience of UWU, suggests that all the academic libraries facing similar challenges such as the digital divide associated with problems related to

the internet and unavailability of devices, lack of digital literacy skills of patrons, and staff, lack of online resources and lack of staff due to restrictions. All the findings suggest the shifting of physical library services and collections to online services and e-resources. the number of innovative approaches suggests that COVID - 19 new normal situation triggered a rapid shift in the global library sector. Most libraries implemented mechanisms to provide online access to reach librarians in time of need. Documentation of the new normal practices and mapping is one innovative practice that can help the administration to plan for future emergencies.

Suggestions

Academic libraries should look into digitization, digital content development, online collection development, and subscription practices, and fund allocations. Library patrons should strengthen with information literacy skills, with a special focus on digital literacy. Library staff should train to work online and with cloud-based systems and also develop their other technology-based skills. It is important to suggest improving the internet penetration at the country level.

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Use of video conferencing software platforms for learning among Indian students during covid-19 pandemic times

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Abstract

The purpose of the present study was to investigate how Indian students used video conferencing software platforms for learning amid the pandemic. An online survey questionnaire by using Google Forms was used to collect the data from 106 participants across the country. The participants consisted of 59 % female and 41% male students ranging from primary to PhD/Postdoc level. Out of this, 88(84%) participants hooked on various video conferencing platforms for learning. Google meet (96.60%) and Zoom (95.50%) were the most used platforms by the participants. Multimedia learning (75%) and self-paced learning (68.2%) were the top advantages of online learning as cited by the respondents. Lack of face to face interaction and internet problems were the frequent hurdles faced by the students. Overall, 62.50% of participants were satisfied and 6.81% were dissatisfied with using online video conferencing platforms for online classes during pandemic times.

Keywords: Online learning, Video conferencing, Online video conferencing platforms, Education in India, COVID-19.

Introduction

The deadly COVID-19 pandemic has challenged the entire educational system all over the globe. The adoption of asynchronous learning during this period let the smooth functioning of the teaching and learning activities(Daniel, 2020). The present study is carried out to know the use of video conferencing platforms for learning by Indian students. The result of the study would drop points to revive the educational system in the country during these kinds of unknown pandemics.

Objectives of the study

- To ascertain the perceived benefits after the use of video conferencing software platforms for learning.

- To know the major hurdles in the use of video conferencing software platforms for learning among the students.

- To find out the overall satisfaction in the use of video conferencing software platforms for learning among the students.

Methodology

Data for the study was collected by using an online survey questionnaire made by Google Forms and previewed   at https://docs.google.com/forms/d/1cF74kHw2OG_iVJqcrgZ8zfyW2KXdGFrsU8KF8NdOWXc/edit?usp=forms_home&ths=true. Data was collected for a period of 1 month from July 2021 to August 2021. Collected data were analyzed by using IBM-SPSS.

Data analysis and interpretation

The gender-wise breakup of the sample

As per Figure 1, the majority of the participants were female (59%) compared to their male counterparts who were accounted for 41% of the total sample population.
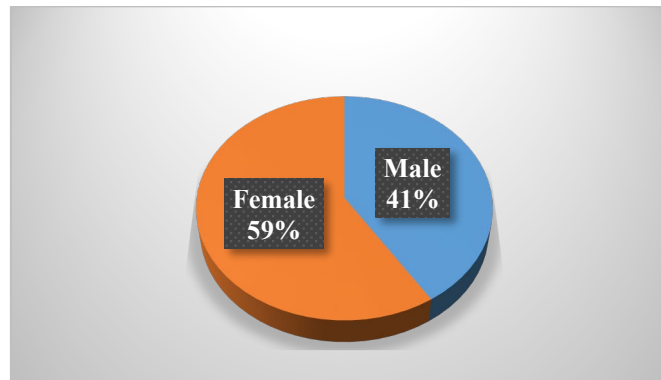

Figure: -1 Gender-wise break up

Use of various video conferencing platforms

According to Figure 2, the most used video conferencing platforms among the Indian students were Google Meet(96.60%) followed by Zoom(95.50%), Webex (69.30%), Google Classroom (44.30%)and Friends Room(9.10%).
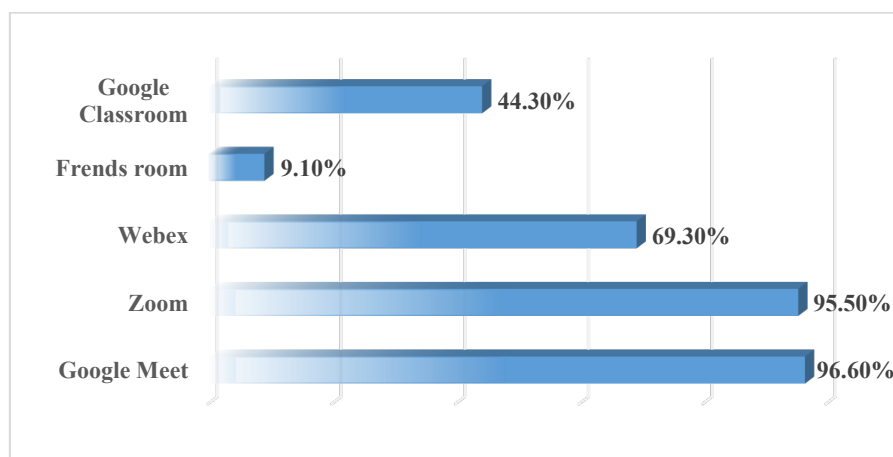

Figure: -2 Use of various video conferencing platforms

Perceived benefits after using video conferencing software platforms

According to the data in Table 1, 68.2% of the participants agreed that the use of video conferencing platforms helped them in self-paced learning. While nearly half of the participants

(48.9%) agreed that their communication got improved. Only a few participants (4.5%) disagreed with the statement that the use of conferencing platforms did not give a way for multimedia learning. The majority of the participants cited the benefit of recorded lectures (71.6%) while 27.3% of the participants were neutral regarding the statement that video conferencing platforms could save time and effort.

Table:-1 Benefits in use of video conferencing software platforms

Response	Agree	Neutral	Disagree
Self-paced learning	60 (68.2%)	24 (27.3%)	4 (4.5%)
Improved communication	43 (48.9%)	31 (35.2%)	14 (15.9%)
Multimedia learning	66 (75%)	18 (20.5%)	4 (4.5%)
Recorded lectures	63 (71.6%)	20 (22.7 %)	5 (5.7%)
Save time and efforts	60 (68.2%)	24 (27.3%)	4 (4.5%)

Hurdles in the use of video conferencing software platforms

As per Table 2, the major problems faced frequently/always by the participants were lack of face to face interaction(36.4%), health issues(15.9%), internet problems(11.4%), technical issues& network issues(10.2%) and difficulty to use(8%).These findings correspond to the study findings of Pakaya et al. (2021) Singh et al. (2020) and Kaur & Sharma (2020).

Table:-2 Hurdles in the use of video conferencing software platforms

Response	Always	Often	Sometimes	Ever	Never
Technical issues and Network issues	9 (10.2%)	35 (39.8%)	42 (47.7%)	0 (0%)	2 (2.3%)
Internet problems	10 (11.4%)	30 (34%)	45 (51.1%)	1 (1.1%)	2 (2.3%)
Health issues	14 (15.9%)	29 (33%)	36 (40.9%)	1 (1.1%)	8 (9.1%)
No face to face interaction	32 (36.4%)	20 (22.7%)	30 (34.1%)	1 (1.1%)	5 (5.7%)
Difficult to use	7 (8%)	20 (22.7%)	37 (42%)	4 (4.5%)	20 (22.7%)

Overall satisfaction

According to Figure 3, the majority of the participants (62.50%) were satisfied with the use of

video conferencing software platforms for learning followed by 11.38% highly satisfied, 19.31% neutral,6.81% dissatisfied. it was seen that no participants were highly dissatisfied.
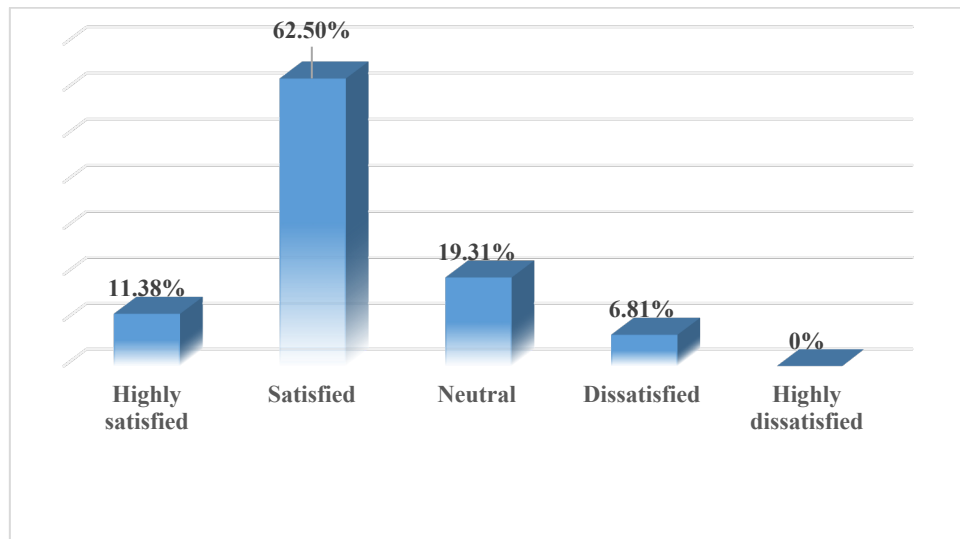

Figure: -3 Overall satisfaction in the use of video conferencing software platforms

Findings, conclusion and recommendations

The study was carried out to know the use of video conferencing platforms for learning by the Indian students during the COVID-19 period. The study reported that the most used video conferencing platforms were Google Meet and Zoom. The participants agreed that the use of video conferencing platforms helped them in self-paced learning and multimedia learning. The major problems faced by them were lack of face to face interaction and health issues. Overall, the majority of the participants were satisfied with the use of video conferencing software platforms for learning. The study can be concluded that the use of asynchronous learning during the pandemic in India was found productive. Even though, there must be a digital divide among the students especially between rural and urban since the country is a developing one. So, the following recommendations were proposed.

- Government should offer free devices to underprivileged students for attending classes.

- Students, as well as the teachers', should be imparted training on the use of platforms for effective use.

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Study of extensive reading preferences among the science-based undergraduates in Sri Lanka: A case study of Medicine and Agriculture faculties at Rajarata University of Sri Lanka

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Abstract

Extensive reading of undergraduates would be more influential & valuable habit in so many different ways during their academic lives as they become confident, happy readers can be both challenging and immensely gratifying. Since measuring this habit quantitatively would be bit difficult due to the various aspects, however this study attempts to measure the ratio level of extensive reading of undergraduates instead of their intensive reading. Finally it tries comparatively analyzing the extensive reading preferences among the science-based undergraduates in Sri Lanka with reference to the Medicine and Agriculture faculties at the Rajarata University of Sri Lanka (RUSL) based on the time-series data retrieved from the Koha Integrated Library System. The main objective of the study was to identify the level of extensive reading of general reading books by science-based undergraduates. The specific objectives of the study were to find out the level of availability of library resources related to the extensive reading, to find out the existing extensive reading behaviors and to identify the comparison and gaps of extensive reading by the science-based undergraduates of RUSL. The case study method was used to conduct the study and time series data set retrieved from the Koha: Open-Source Library Integrated System called 'ISURa' which has been installed at the file server of RUSL during the time period from 2016 to 2019. The main assumption of the study was that checking out books from the library by the above students is the only use for them. The limitation of the study was not considering the Adhoc reading at the library during the selected period. The major finding of the study was that science-based student's extensive reading behavior is satisfactory compared with their intensive reading (Agriculture students 50% and Medicine students 20%) further authors were recommended to enhance the available resources by increasing the annual budget proportionately.

Keywords: *extensive reading, knowledge mining, reading habits, science-based undergraduates, Universities in Sri Lank, Reading for life*

Introduction

A graduate is a person who is one step ahead of the rest of the population in his ability to see, understand and make a positive difference in the world in which he lives. For that, he must have consciousness, prudence as well as a good imagination. It should be achieved by every student entering a university with great effort and development of his intellectual capacity. One of the easiest strategies for this is to develop an intellect through reading books and create an environment where one can look at a problem logically. It is the full responsibility of every university to provide the necessary infrastructure for undergraduates to develop their knowledge in this way. But the question is whether they will take advantage of the facilities

provided by the university and absorb something in addition to their basic education. This is contained in the old saying that "reading makes a man perfect". Numerous recent studies have also revealed that people are gradually moving away from the use of books and increasingly turning to social media instead. According to Lone et.al (2019), today's student builds tomorrow's future. Accordingly, it is essential that university students, who are increasingly turning to social media networks, be freed from it and taught to read books that go beyond their curriculum. Shehr and Gaffer (2018) also emphasized that the benefits of reading a traditional book cannot be found in using an e-book. Thus, it is timely to study the levels of general book reading of science-based university undergraduates.

Harris (2020) discussed about four reading methods of human beings as Scanning reading, Skimming reading, Intensive reading (IR) and Extensive reading (ER). It is defined as "involves someone reading books for enjoyment or happiness and to develop general reading skills". ER can be considered as more influential & valuable habit of people in so many different ways during their general or academic lives as they become confident, happy readers can be both challenging and immensely gratifying. This study aims to conduct a case basis investigation on extensive reading methods with Medicine and Agricultural students at the Rajarata University of Sri Lanka with the basic assumption of whole check out books from the library by above students are only use of them. The common phenomenon of extensive reading is defined by Harris (ibid) as a kind of general reading for general information. Generally, this technique is used for pleasure reading, like reading a novel for pleasure.

The Rajarata University of Sri Lanka is a national University administered under the University Grant Commission of Sri Lanka and it consists of 6 academic study faculties with more than 400 teaching staff and 8000 student population. The Library system of RUSL is distributed with the Main Library and 5 faculty libraries geographically in a different location based in Mihintale city in Anuradhapura district of Sri Lanka. Faculty Libraries of Medicine, Agriculture and Applied Sciences are fully served as Science-based Libraries however maintain the extensive reading collection for the users' general reading purposes. If those libraries maintain the said extensive reading collections, there was no study or investigation taking place to identify the reading behaviors of Science-based students' extensive reading capacity. Therefore, this study would be most significant about this topic. Therefore, the following research objectives are intended to facilitate research in accordance with the above research topic.

Research objectives

The general objective of the study was to identify the level of extensive reading of general reading books by science-based undergraduates.

The specific objectives of the study were:

12. to find out the level of availability of library resources related to the extensive reading
13. to find out the existing extensive reading behaviors and
14. to identify the comparison and gaps of extensive reading by the science-based undergraduates of the Rajarata University of Sri Lanka.

Research methodology

Case study method was used to conduct the study. The two faculties (Faculty of Medicine & Agriculture) of the Rajarata University of Sri Lanka was selected as the study area and the study used the time series data set retrieved from 2016 to 2019 from the Koha: Open-Source Library Integrated System called 'ISURa' which has been installed at the file server of above University by using the following post-written source code under its report module:

SELECT b. title, b. author, i. itemcallnumber, i. barcode, c. issuedate, p. cardnumber

FROM (SELECT iss. issuedate, iss. itemnumber, iss. borrowernumber FROM issues iss,

(SELECT @StartDate: ='2019-01-01', @EndDate: ='2021-08-05') AS var

WHERE date (iss. issuedate) BETWEEN @StartDate AND @EndDate UNION ALL

SELECT oi. issuedate, oi. itemnumber, oi. borrowernumber FROM old_issuesoi WHERE date (oi. issuedate)

BETWEEN @StartDate AND @EndDate) AS c

LEFT JOIN items i USING (itemnumber)

LEFT JOIN biblio b USING (biblionumber)

LEFT JOIN borrowers p USING (borrowernumber)

WHERE i. homebranch='AGRI'

The retrieved data was filtered and tabulated using the MS Excel Spreadsheet application and the analyzed data related to the above two faculty students were presented over the table and graphs. It was assumed that none of the medical students' library usage at the faculty of medicine during the few months of the year 2017 was due to the South Asian Institute of Technology and Medicine (SAITM) issue.

Result

Study Profile

To understand the nature of the existing resources of the selected libraries, the authors collected

some data from secondary sources. As shown as in table 1

Table 01: Profile of the study area

	Medicine	**Agriculture**
Location of the Library	Saliyapura and Teaching Hospital Anuradhapura, Sri Lanka, 50000	Puliyankulama, Anuradhapura, Sri Lanka, 50000
Total book collection	12000	16000
The ratio of general reading books /Total Collection	2200/12000 =18%	4200/16000 =26%
Total seating capacity	265	100
Total Allocation	2 Million	2 Million
The ratio of allocation for purchasing general reading books / Total purchasing books	100,000/2,000,000 0.05%	100,000/2,000,000 0.05%

Source: Annual report of the library, 2020 - RUSL

Levels of the extensive reading by the students

One of the objectives of the study was to find out the existing level of extensive reading behaviors. The following table showed the checkout details of the students during the selected time series.

Table 02. Number of checkouts by the students (2016 - 2019)

Year	Medicine			Agriculture		
	Total checkouts	Extensive checkouts	%	Total checkouts	Extensive checkouts	%
2016	5454	1250	22.9%	3794	2083	54.9%
2017	3271	777	23.7%	3230	1621	50.19%
2018	6997	452	6.46%	2821	1702	60.33%
2019	7976	801	10.0%	2139	1200	56.10%

Source: KOHA, RUSL library Integrated management software

Gap and comparison of the extensive reading by the science undergraduates

The final objective of the study was to identify the comparison and gaps of extensive reading by the science-based undergraduates of the Rajarata University of Sri Lanka. Following table shown

Discussion and conclusion

Discussion

The most highlighted significance of the study profile was both libraries have been allocated

an equal amount to purchase extensive reading materials. The seating capacity of both libraries is more than 100 (Medicine = 265, Agriculture = 100).

Conclusion

Based on the time series data retrieval from the existing RUSL Library integrated system regarding the extensive reading habits of science-based undergraduates over the past four years, it can be concluded that their reading behavior is satisfactory. However, when comparing the number of annual existing resources checkouts in both libraries, the level of using extensive reading materials is satisfactory by Agriculture (50%-60%) and still less satisfactory by medicine (10%-20%). And also research revealed that both faculties extensive reading behaviour based on their science-based field activities such as Agriculture students spend their time on fieldwork and medicine students spend their time on clinical appointments.

Recommendations

The study revealed that since the Library system of RUSL had provided certain facilities to access extensive reading materials for their users, there was a lack of extensive reading materials usage by the Medical Science-based students instead of the Agriculture Science-based students. The researchers guessed the main root causes for the less usage of extensive reading by the medical students as their study schedules, more clinical practices as well as overstress due to heavy workload during the entire study period. Therefore, it is recommended that

- Find ways to mitigate the tight study schedule and motivate the students to utilize more extensive reading materials with their subject-oriented reading materials.

- Propose to extend the by-law of check-in period for the extensive reading materials up to 3 weeks. Then it could provide the extra more time to the users to read those books.

- Waving off the fines for the overdue extensive reading books are also one of the recommendations.

- Further, researchers are encouraged the authorities to provide an attractive learning environment at the Library premises to enhance the users' readability.

- Increasing the ratio of annual allocation to purchase more extensive reading materials.

- Introduce the exchange program of extensive reading materials among the sister libraries of RUSL and,

- Provide more access to digitized extensive reading materials among the users are noted as the fruitful other initiatives further to the above major recommendations.

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Functionalization of the Human Library Concept in Sri Lanka: University of Colombo Library, University of Sri Jayewardenepura Library, Athurugiriya Public Library and National Library

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Abstract

Over time, many innovative concepts have come into the library system. Accordingly, the concept of human library can be introduced as one of the most important concepts that has entered the field of library recently. Human libraries provide an opportunity to connect with a live human book and exchange ideas. The main objective of this research was to study the importance of applying the concept of human library to the library system of Sri Lanka through the Colombo University Library, Sri Jayewardenepura University Library, Athurugiriya Public Library and the National Library. Most readers prefer to communicate with a live person instead of reading books Foreign countries are reaping many benefits from the use of the human library concept. In order to put such programs into practice in the library, it is very important to introduce this concept to other libraries, to explain its benefits and to spread this concept within the Sri Lankan library system.

Keywords: Library, Information, Human, Human Library, Human Book

Introduction

A human library is a collection of "books" that belong to man. Each of these books volunteers to participate in the library and share their stories. Like a normal library, the human library has a book jacket and description, and a "reader" can check "books" on a topic that he / she / they are interested in learning more about.The Human Library was created in the spring of 2000 in Copenhagen by Ronnie Abergal and his brother Danny and colleagues Asma Mauna and Christopher Erichsen. The original event was open eight hours a day for four days and covered more than fifty different topics. The wide selection of books gave readers enough choice to challenge their stereotypes, so more than a thousand readers benefited and the books, librarians, organizers and readers were amazed at the acceptance and impact of the human library" (Human Library Organization, 2020). Through the concept of human libraries are able to positively change people's attitudes, thoughts, perceptions and behaviors, and thereby create a respectful conversation. Instead of examining and judging a book from its cover like in a traditional library, we will be able to connect with a person who has stories with unique life experiences and we can chat with them for free.

It has been nearly 20 years since the concept of the human library was introduced. The concept of human libraries has spread far and wide in foreign countries, and the results have shown that these countries have reached the pinnacle of development. According to Johannes, the library is an innovative way of promoting dialogue, reducing prejudice and encouraging understanding. Following this rationale, human library access has been promoted in other countries and followed in various fields. Alport also suggests that positive relationships between groups can reduce negative prejudice. He also points out that the human library approach focuses on facilitating inter-group relationships, and that it is a good way to intervene as a remedy for mental health malpractice.

The human library is the key that can be used to successfully socialize people with mental illness(Kwan,2020). He goes on to say that human library access can be introduced as a community intervention strategy to facilitate optimal socialization of people with mental illness (in recovery).

Today, the number of suicides and mental illnesses in Sri Lanka has increased dramatically. According to a report released by the World Health Organization in 2012, Sri Lanka has the third highest number of suicides. But in the 30 years between 1985 and 2015, Wikipedia ranked Sri Lanka 7th out of 107 countries in terms of the number of suicides in the world. About one million people commit suicide each year, and by 2020 it is estimated to be 1.5 million. According to the Registrar General's Department, about 4,000 Sri Lankans commit suicide each year (World Health Organization,2020) Possibility through programs. Therefore, it is very important to implement human library programs in third world countries such as Sri Lanka. Libraries can also do a great job of talking about their problems and motivating them with positive ideas. The importance of applying the concept of human library to the library system in Sri Lanka is immense. However, the spread of the human library concept in the library system in Sri Lanka is still slow and it is safe to say that the programs that are currently being implemented are not functioning successfully and are problematic.

Objectives

The main objective of this research was to study the importance of applying the concept of human library to the library system of Sri Lanka through the Colombo University Library, Sri Jayewardenepura University Library, Athurugiriya Public Library and the National Library. The other objective is to identify the current status of human libraries currently operating in Sri Lanka, identify strategies used in the implementation of human library programs, and identify issues and challenges faced by librarians and staff in implementing human library programs.

Methodology

The survey method was used as the research method. University libraries and public libraries in Sri Lanka as population. For sample, University of Colombo Library, University of Sri Jayewardenepura Library and Athurugiriya Public Library and National Library have been selected for a total of 100 readers, each with 25 readers and the librarians and staff have been selected for a total of 25 each 5 librarians and staff. Primary data was collected from a questionnaire. University Grants Commission, Department of Census and Statistics, Annual Reports and Statistics of the respective Universities for obtaining secondary data Records were used.

Results and Discussion

It was revealed that the concept of human library has not spread properly in the library system of Sri Lanka. It was also revealed that library programs in the University of Colombo Library, Sri Jayewardenepura University Library, Athurugiriya Public Library and the National Library in Sri Lanka are not functioning successfully at present. Many librarians implement human library programs confined to a traditional framework. Most readers prefer to communicate with a live person instead of reading books

Conclusion and Recommendations

Many benefits can be gained by applying the concept of human library to the library system in Sri Lanka. In Sri Lanka, human library programs operate in only a limited number of libraries. There is also inefficiency in the human library programs that are currently being implemented. The competent authorities should pay attention to this and further promote human library programs. The concept of human libraries in Sri Lanka has spread slowly. It is limited to the National Library, the University Library of Colombo and the University of Jayewardenepura and several public libraries. Today, the concept has spread to more than 80 countries. But the concept of human libraries has spread in Sri Lanka at a very slow pace. That is, the concept of human libraries has spread to a very limited number of libraries.

Human library programs need to be further expanded within the library system of Sri Lanka. Competent authorities should pay attention to its expansion in the library system in foreign countries as well as in Sri Lanka. Every librarian as well as staff should be informed and given proper training to implement the human library concept. Human library programs should be organized involving all parties from young to old. Programs should be promoted using appropriate media to educate users about upcoming human library programs. Curriculum should be developed on this human library concept.

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A critical analysis of postgraduate theses in University of Kelaniya

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Abstract

The main aim of this study was to ascertain the contribution made by postgraduate scholars through the research projects they undertake as part of their studies at the University of Kelaniya. The study sample consisted of 1,012 theses pertaining to doctoral and master's degree theses submitted at the University of Kelaniya. Ms-excel was used to analyse and interpret data. It was clearly identified that Art subject disciplines were the most trending subject areas of the University of Kelaniya. It was observed that within the period of time concerned in the study, most of the research focussed on arts subject areas while majority of theses came in the category of MSSc degree while the number of theses submitted in the categories of DBA, MBA and MSc degrees were a few. Therefore, it could be concluded that the Faculty of Graduate Studies, University of Kelaniya has to take steps to popularise postgraduate research work in other subject areas and in-depth categories such as doctoral degrees

***Keywords:** Research trends, Postgraduate theses, Postgraduate research, Research production*

Introduction

Research is simply defined as a systematic investigation of any field of study, conducted by an investigator to reveal new facts, theories, or principles, or determining the current state of knowledge of the subject (ODLIS, 2014). At the same time, the research directs the proper way for future development of any subject areas and owing to the research a new subject disciplines could be occurred (Islam, Islam, N. & Mondal, 2018). In other words, research is capable enough to find solutions or conclusions for any subject matter (Mittel, 2011). Academic and research institutions are mostly involved in current research thus contributing to new knowledge and theories. (Kang & others, 2014). In order to identify gaps, quantitative and qualitative analysis of past research become necessary for the research world.

One of the main tasks of any academic institution is to support research in all applicable subject disciplines. One of the ways to approach this issue is the facilitation though research at postgraduate degree programmes and to disseminate research findings in the society. At the same time, academic institutes or research institutes play a valuable role offering postgraduate research and try to communicate the major issues or trends in the society (Ozturk, 2017). The Faculty of Graduate studies, University of Kelaniya has been selected as the academic institution focussed in this research study. Currently, it offers a range of postgraduate degree programmes which include Ph.D., DBA, M.Phil., MSSc., MHRM, M. Com, MSc., MBA and M.A. degrees coordinated by the Faculties of Commerce & Management, Computing &

Technology, Humanities, Medicine, Science and Social Sciences. In all these degree programmes there is a research component which requires candidates to engage in a research study and submit a thesis. In case of a Doctoral or M. Phil. degree the research itself become the major component. Theses submitted in the university are handed over to the main library to enable subsequent use and conservation. The thesis collection at the main library consists of 1,700 theses submitted in the university during the period 1960 to 2020. In analysing the research contribution, the theses collection referred-to above and its index were used as the main source of data. Due to Covid-19 epidemic and resulting restrictions on movement, this research was limited to theses submitted during the period 2010 to 2020.

In the both national and international research arena, there was more research related to the research trends, research contribution and doctoral contribution related to the subject disciplines. Some of the research studies carried out in this area has focussed their attention to explore research work pertaining to a particular subject discipline such as Library and Information Science (LIS) or covering a particular geographic region. For example, there are numerous research studies focussed on the trends of LIS discipline (Islam, Islam, N. & Mondal, 2018; Mittal, 2011; Moahi, 2008; Chatterjee, Rath, & Poddar, 1995). There are a few research studies focussed on postgraduate theses in Sri Lanka. Angammana and Jayatissa (2015) carried out a bibliometric study of LIS postgraduate theses. However, this study is the first attempt of addressing domestic research contribution and research output at the University of Kelaniya.

Objectives

The principal objective of this study was to identify the distribution of subject disciplines as selected by postgraduate research scholars. At the same time, this study was to identify the contribution to the research fields of subject areas of selected postgraduate theses. Finally, this study tried to investigate contribution of the research world by the postgraduate degree programmes of University of Kelaniya.

Methodology

This study was based on the descriptive research and primary data obtained from the thesis collection held at the University of Kelaniya main library. Out of the total collection of 1,700 theses accumulated during the period 1960 to 2021, 1012 theses collected over the period 2010 to 2020 selected for the study. These theses are related to Ph.D., M.Phil., MSSc., MHRM, M. Com, MSc., DBA, MBA and M.A degrees offered by the University of Kelaniya. Content analysis was used to identify the research areas and the research contribution of the subject disciplines during the selected period. Collected primary data was descriptively analysed by using Ms-Excel and presented accordingly.

Results

As 1,012 theses out of a collection of 1,700 were used for the study, 59.5 percent of the study population included in the sample. The majority of postgraduate's theses (40%) originated from the faculty of Social Sciences whereas the respective percentages from the faculties of Humanities, Commerce & Management, Science and Medicine respectively becoming 27%, 25%, 7% and 1%. Figure 1 shows the subject-wise distribution of theses. Accordingly, the highest number of research reported from the subject discipline of Linguistics with 174 (17.19%) theses, while Human Resource Management, Mass Communication and Library and Information Sciences disciplines degrees achieved second, third and fourth rankings with 126 (12.45%), 104(9.98%) and 88(8.70%) theses respectively. The research output on History, Philosophy, Zoology, and Mathematics were found to be less.
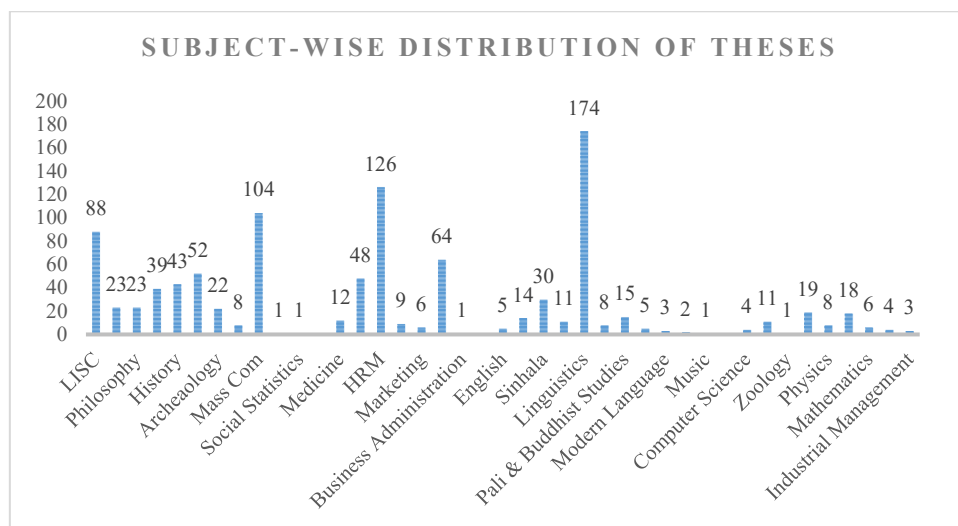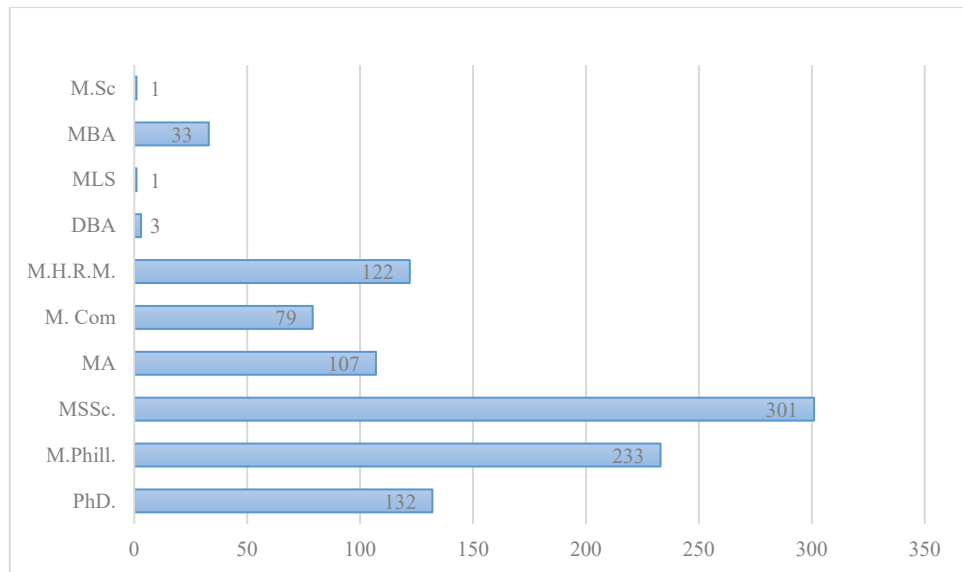

Figure1: Subject-wise distribution of theses (Source: Analysed data, 2021)

Figure 2 shows the distribution of research according to the degree programme. Accordingly, M.S.Sc. degrees represented the highest number of the theses (301 or 30%) while M.Phil. and Ph.D. programmes secured second and third places with 233 (23%) and 132 (13%) theses respectively. M.H.R.M. and M.A. theses contribution was over hundred during the selected period. M.Com., M.Sc, M.B.A., D.B.A., and M.L.S. theses production is a few.

Figure 2: Distribution of theses according to the degree programmes

(Source: Analysed data, 2021)

Discussion/ Conclusion

The principal objective of this study was to identify the distribution of subject disciplines as selected by the postgraduate research scholars and the results clearly shows that majority of postgraduate's theses were related to Art subjects while Commerce and Management disciplines assuming the next position. However, there are a very little number of research conducted at the postgraduate level in Science and Medicine disciplines. Based on the analyzed data, the Linguistics identified as the most trending subject theme in the University of Kelaniya. Besides, Human Resources Management, Library and Information Science and Mass Communication are the most prevalent subjects for researches.

Master of Social Sciences degree programmes are the highest contributor in the field of postgraduate research at the University of Kelaniya. Production of Master of Philosophy and Doctoral researchers were slightly developing research programs. Contribution of DBA, MBA and MSc. to the research field was very low.

Recommendations

It is visible from this study that there are a lot of subject areas which requires the attention of the Faculty of Graduate Studies in encouraging potential researchers to engage in research studies thereby generating new knowledge useful to the community at large. Towards that end, gaps of knowledge have to be identified and encouragement has to be provided to potential postgraduate research scholars to select such topics for their research studies. At the same time, librarians and other research scholars could explore the coverage of subjects to identify the

gaps. Not only above-mentioned suggestions but also updating accurate database based on the theses collections will more beneficial for researchers to distinguish the gaps of research fields.

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