An Investigation into Digitization of Theses and Dissertations in a Selected Tertiary Institution of Learning in South Africa

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ABSTRACT This paper examines the digitization of theses and dissertations in a selected tertiary organization of learning in South Africa. The purpose of the study was to confirm that new digitization ventures satisfy the desires of libraries, students, and different partners, for example, scholars and different institutes. The paper used qualitative research methods. Semi-structured questionnaires were used as research instrument for collecting data. The study consisted of three (3) participants out of a population of twenty (20) librarians who were staff-members at the University of Fort Hare (UFH) and were selected using purposive sampling. The data were analyzed using thematic data analysis. The result shows that the institution's library dissertations and theses digitization did not have sufficient staff, funding, sponsors, and effective government support. As a result it made the digitization process slow. Undoubtedly, the study provides ways on how upcoming digitization ventures could be executed. The paper advocates that this study would expand the university administration and librarians' knowledge of the importance of the digitization of dissertations and theses.

INTRODUCTION

The UFH library embarked on its digitization project of theses and dissertations in the year 2008 but up until now this process has not been completed. Her counter Universities in the region like Rhodes University, Western Cape, Cape Town University, and Nelson Mandela Metropolitan University (NMMU) are fully digitized (Nyida 2014).

In the first half of the 21st century, university libraries are witnessing a paradigm shift which is mainly reflected by the change of data sources and framework from paper to electronic media, complexity in data needs due to high demands of users, and increase in the cost and quantity of information (Bandra 2002). Electronic Theses and Dissertations (ETDs) are prepared documents for submission as text based Adobe Por-

table Document Format records (PDF). ETDs can contain non-text components that cannot be consolidated into traditional hard copy, interactive media or hypermedia, sound, video and hypertext connections can be incorporated to extend and develop the outflow of thoughts and the introduction of research. Critically, dissertations and theses give a more extensive introduction, exposure and awareness about research to both undergraduate and postgraduate students. They promote research to enhance exchange of information (Bandra 2002).

A library is a place that caters for all methods of learning. Individuals learn distinctively and have diverse data needs. Establishing space for the arts, meetings, and experimentation is imperative as establishing space for reading. New innovations through technologies have given users the opportunity to re-examine the library's main goal and frame its space to fit its functions (Hughes 2003). In essence, libraries play a key role in increasing knowledge.

Library services are increasingly shifting from the analogue to digital contents. The digital technology enables library collections to be available online and content to be browsed eas-

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ily. They may be indexed and revised right away. Furthermore, they can be linked to the world-wide web. Publishers and libraries are turning to electronic means of information production, process and dissemination. Many users around the world are increasingly using internet and online databases to search, browse and meet their information needs with ease. A number of scholars have found out that people use internet as their first port of call (Centre for Information Behaviours and the evaluation of Research (CAIBER) 2008; Estelle and Wooward 2001).

Problem Statement

The current move into digitization of information is a global phenomenon of preserving and managing of library collections for wider and easy accessibility by users and researchers while at the same time preserving them. For instance, digitization of documents has increased service delivery and enhanced teaching and research in academic institutions. Arguably, institutional resources such as theses and dissertations are of high value for academic purposes because they provide in-depth knowledge for researchers and other users. However, many institutions of higher learning in developing counties such as South Africa appear to have not attained the desirable capacity in digitizing their library collections and services. This has implications for the literature, information retrieval and consumption, leading users to spend much time in searching for information. Evans and Mersham (2006) pointed out that the wealth of knowledge and experiences of academics contained within theses and dissertations is generally available "in paper bound formats or as microfilm or microfiche," making them difficult and expensive to obtain and access. The digitization of theses and dissertations increases accessibility to these invaluable resources. Although a similar study was done in South Africa but it did not cover the UFH.

Aim of the Study

The aim of the study was to ensure that new digitization systems fulfil the expectations of libraries, students, and other stakeholders such as academics and other institutions.

Research Objectives

- To find out the processes of digitization of theses and dissertations at University of Fort Hare (UFH).
- To determine the prospects associated with digitization of theses and dissertations at UFH.

Research Questions

- What are the processes followed in digitization of theses and dissertations at UFH?
- What are the prospects associated with digitization of theses and dissertations at UFH?

Literature Review

Realistically, the UFH is among the upcoming education institutions in the South African post-apartheid era. It is also among the historically disadvantaged black Universities that have suffered a backlog of under development and underfunding (Nkosi 2015). However, the University is geared towards offering quality education of international standards through teaching and research as professed through its mission and vision statements as well as its goals and objectives (UFH Prospectus 2015). These objectives can among other things, be achieved through putting in place a good library service that is offering modernized services. This places the role of digitization as a key driver to the library services. Library digitisation, therefore, is a gateway to offering quality research.

Digitization

According to Ramsay et al. (1996), Rhoads and Digimarc Corporation (2001) and Uddin (2013), digitization is the conversion of analogue information whether in the form of texts, photographs, images to digital form with suitable electronic devices such as scanners, or specialised computer chips etc. They further stressed that the digitization process ensures effective and efficient information procession, storage, dissemination, and transmission through digital circuits, equipment and networks. However, the concept also has attracted other diverse definitions. For example, in addition they also indicate

that digitization is a process of taking traditional library material that exist in forms of books and papers and converting them to electronic forms that can be manipulated by a computer. Also Fabunmi et al. (2006) contend that digitization entails converting any document in hard copy to a machine- readable format.

Digital Library

The globe all over is adjusting to rapid technological changes to keep up pace with information needs and development. Information is needed in real time to make financial decisions, health related decisions etc. Whatever aspect we may look at, time is of essence in this fast paced world. In the academic world therefore, digital libraries are such requisites that will match the needs of users to this fast paced globe we live in. According to Alhaji (2007), a digital library is a collection of digital documents or objects; whereas Smith (2001) contends that a digital library is an organised and focused collection of digital objects, such as texts, images, video and audio etc. with the methods of access, retrieval, selection, creation, organisation, maintenance and sharing of collections.

Digitization Globally

Globally, there has been an evidence of an accelerated growth on digitization. Most importantly, developing countries such as South Africa should enhance on policies and standards which strive in achieving the sharing and distribution of information services (Amollo 2011). Duderstadt (2009) added that, there is a need for academic libraries all over the world to shift their focus on the widespread of digitizing their collections. University libraries are the major and most developed segment of academic libraries. Hence, university libraries are very much engaged in digitizing books, journals, archives of newspapers, past examination question papers, theses and dissertations (Mat and Kolej 2005).

Liu (2004) states that, among other libraries which engaged in 100 digitization projects which took place in the United State of America (USA) were mostly from academic libraries. Boock et al. (2002) revealed that there has been a large-scale digitization effort of Cleveland State University Library. The library was involved in making accessible online collections of unique Cleveland-related materials like postcards and Cleveland Press Shakespeare Photographs database.

Webb et al. (2013) maintains a web page on its web site about Australian digitization projects. The web page link a number of digitization projects mostly managed by different Australian university libraries. Cathro (2007) also confirmed that Australian University libraries are involved in digitization of course materials and examination papers. He mentioned that two collaborative digitization projects were initiated by University libraries of Australia, which are Australian Co-operative Digitization Project and The Sydney Electronic Text and Image Service (SETIS). Sulistyo-Basuki (2004) highlighted an overview of digitized collections within Universities in Indonesia, starting from the Ganesha Digital Library Network in 1998, which developed into the Indonesian Digital Libraries Network (IDLN), with 87 private and institutional members. The State Ministry of Research and Technology has distributed document digitizing software (Docushare) to universities, and this has been used to digitize more than 14,000 documents by Asosiasi Perguruan Tinggi Katolik Indonesia (APTIK) or Association of Catholic Universities in Indonesia) Library Network. The authors have also described a number of digitization activities carried out by a large number of Universities, Islamic institutions, and technology information kiosks. Mat and Kolej (2005) cited that in Malaysia, 13 University libraries digitized their theses and dissertations, exam papers, and publications of academic staff and photographs. From the above review, it can be deduced that academic libraries has placed a great of importance on digitization.

Processes/Steps of Digitization

In order to embark on digitization projects in developing countries, according to Fabunmi et al. (2006), Asogwa (2011), Pandey and Misra (2014) and Nnenna et al. (2015), there are certain factors that must be considered. These factors include the following phases (Fabunmi et al. 2006; Asogwa 2011; Pandey and Misra 2014; Nnenna et al. 2015)

Policy Enactment

"A policy is a guiding statement. The top management should enact a policy on the project. Such a policy will serve as a reference point and guide for implementing the project. The policy

should contain the goals of the digitization project. Good goal setting is important for any new initiative. 'To make our materials more accessible on the web' is not specific enough. There is a need to be specific, particularly on the categories of users that will access the collection, the type of material they may be interested in, how they will use it, how many people are envisaged to use it, the planned procedure for its advertisement, and the benefit of the material to users and institutions. Contacting current and potential users is an excellent way of having clues to all these issues. One may consider sending out a survey to the project's intended audience in order to learn how they are currently using the material, and how they might use it differently if it was digitized. It may be helpful to contact other institutions that have digitized similar collections and learn from their successes and failures.

Policy Approval

The policy should be approved by appropriate authorities before project for digitization is implemented. For example, a university library may need the approval of the university management and other funding agencies before any digitization project can be embarked upon.

Planning, Budgeting and Monitoring

It is most essential and desirable to set up a planning committee that will draw the plan and budget for the digitization exercise. Budgets for digitization projects should include the following categories: *Salaries, wages and benefits* (i) equipment and supplies; (ii) staff training; (iii) Services, contracts and legal fees; (iv) overhead and indirect costs (including offices and workspace); (v) Maintenance, licenses, and communications charges and (vi) contingency (setting aside about ten percent (10%) of the total project budget for unexpected expenses)

The purposes of the digitization project, the source of fund and the amount available for the project should also be taken into consideration. At the regional or national level, effective planning for digitization can bring together all types of libraries, museum, academic/professional societies, historical societies and archives to take advantage of the exercise. For example: In USA, the planning for digitization in the Central New

York brought together all types of libraries, museum, historical societies and archives which took advantage of expertise and content. The Central New York digitization project was supported by a Library Services and Technology grant provided by the New York State Library.

Acquisition of Appropriate Technology

The plan drawn for the project will determine the appropriate technology to acquire. Technology here refers to all the equipment/hardware and software that are needed.

Administrative Decision on the Procedure to be Adopted

Decision has to be made on the mode of operation, whether to just establish links with existing digital libraries or to digitize in-house or to contract it out. There is a need to establish time limit for the project.

Legal/Copyright Issues

Who owns it? Selection of archival materials for digitization should first be based on a clear understanding of copyright law and rights of ownership (De Stefano 2000). Does physical ownership mean rights of reproduction? Physical ownership does not mean that an institution owns the rights to reproduce it. One of the most important selection criteria for digitization will be the copyright status of the original materials. Will it be possible to obtain permission to digitize? After digitization, will the institution be able to protect the digital assets by managing the rights to their use? If the institution does not have the rights to digitize, or the means to manage the digital assets, then the digital project should not be embarked on.

Selection Criteria

In developing selection criteria for digitization, the process of selecting specific item to be digitized will employ such standard library selection criteria such as value, significance to the overall collections, user demand and interest, availability and fragility of the original. The United Nations Educational, Scientific and Cultural Organization (UNESCO), International Federation of Library Associations and Institutions (IFLA), and International Computer Association

(ICA) suggest that digitization projects should be user driven or based on high demand for access. In other words, unless archivists are trying to encourage consultation of certain documents or restricting the circulation of the originals, it is not advisable to digitize records that are not in demand by patrons; Opportunity driven, that is to say, when enablement is available an inadequate level of human, financial, material, and technological resources may lead to abandonment of the project along the way. Preservation driven or the need to protect fragile materials simply means that a high demand for archival material may justify digitization as a measure to preserve the original as use of surrogates protects the original from unnecessary handling.

Verifications

Having selected materials for digitization, the next thing to do is to verify or ascertain whether digital copies of such materials already exist. Duplication of efforts is not necessary. Conventional development policies always try to avoid the purchase of copies whose editions already exist in the collection. However, re-digitization is necessary if the electronic resources created were carried out using older technologies. In addition, if the copyright permission to digitize resources was not in the public domain and if the material or the institution concerned wish to embark on a wider area network such as the Internet or World Wide Web, there is the need to re-digitize the materials. In the past, it was thought that when a scholarly production was transferred to an institution the legal rights to reproduce the material are automatically made. Today institutions can no longer count on the fact that legal rights are transferable (Beamsley 1999). For this reason, institutions must be assured that project objectives are attained within the context of the Copyrights Act.

Metadata

Metadata simply means information about information that describes digital objects and enables users to find, manage and use digital objects. It represents the total historic record of the digital object and the totality of information about the object. For developing countries good metadata is a key component of developing digital archives that are usable and useful for long term. Metadata helps to identify the work, who creates it, migrated or reformatted it, and other descriptive information; it provides unique identifying information about the organization's, files, and databases that have detailed information about the digital contents; describes the technical environment in which the digital files were created, equipment, used, the software, operating systems and other things. The justification for digitization and provision of metadata is to enable it in future for without metadata there is no access and when there is no access, it would be difficult for users to learn from the past in terms of their successes and failure. These are the key issues which should bear in mind of the library stakeholders whenever they are planning for digitization of their collections."

Prospects/Need for Digitization

As the world becomes more progressively and technologically advanced, digital resources becomes greatly appealing (Chiware 2007). Many academic scholars in the information world do agree that library digitization is no longer an option. Jagboro et al. (2011) also acknowledge that libraries worldwide are becoming digital conscious and digitizing their materials ranging from books, journals, archives of newspapers, artefacts, music, theses and dissertations and other historical documents and images of international and cultural interest (Rafiq and Ameen 2013: 39). Digitization has brought immense opportunities to both users and service providers alike. Several scholars have put forward different pros and cons of library digitization. They largely fall into categories discussed below.

Alhaji (2007) cited ease of information access, wider scope of coverage, improved information sharing and improved preservation as some of the benefits digitized libraries offer.

Ease of Information Access

With the profile of library users ever changing in the world today, not all users are able to physically access a library facility. There are so many students for instance, who study while working, others are distance learners and other users have a host of all other problems that may put physical accessibility as a problem. Therefore accessing information online is their only other option. Furthermore, even in a formal stu-

dent study setting, one finds campuses are not in a single location. For instance University of Fort hare has campuses in East London and Bisho. He further observed that online access does not put a time limit as a physical library does due to opening and closing hours during public holidays.

Wider Scope of Coverage

The quality of library services could largely be determined by the scope at which information can be accessed to a wider population. As correctly observed by Alhaji (2007: 3), physical documents can be accessed at point of location and as available. This implies that if there are a limited number of copies available in the library, many potential users have to miss the use. This however, means that whatever they wanted has to drag. This also implies that the users of such a library will have to take long to accomplish their tasks. However, when digitization process is in place in such a library, the content can simultaneously be accessed by as many people as possible (Alhaji et al. 2007). Ubogu (2001) states that Africa needs to improve the accessibility and visibility of its intellectual dissertations.

Improved Information Sharing and Dissemination

Perhaps one of the norms of globalization is facilitating information sharing and dissemination. The effectiveness and efficiency in which institutions achieve this quality determines their institutional quality. Digital libraries can share information with each other and thus provide enhanced access to users. With agreed protocols in place, this arrangement greatly increases user benefits as they have a wider range of information to choose from and therefore increase their quality of research by comparing, referring, sampling, illustrating, and representing (Unsworth 2000). In addition libraries can package and sell their academic contents.

Preservation

Undeniably, preservation of documents is a key to the effectiveness of library services. This determines the institutional memory of institutions. Perhaps this is important because through age, use and misuse, physical library documents and articles are prone to wear and tear. There is also yellowing with age that renders readable print blurred. Alhaji (2007) noted that this causes loss of materials to the library communities, yet this is not the case when materials are digitised and a digital surrogate is created. Although Asogwa and Ezema (2012) also argues that, viruses and disasters can also corrupt the digitized materials, but with careful back up plans put in place this can be avoided.

Cost Benefits

According to Kling and McKim (1999), the cost of maintaining a digital library is much lower than that of a traditional library. However, a traditional library must spend large sums of money paying for staff, book maintenance, rent and additional books.

Institutional and Strategic Benefits

There is no doubt that digitization programmes can raise a profile of an institution. The QS world University ranking methodology uses among others things, a University research output as one of the ranking indicators. The more highly cited research papers a university publishes, the stronger its research output is considered. It also ensure standardization and conformity amongst libraries-collaborative and accountable efforts by libraries will automatically require that mutually accepted standards and guidelines are followed in setting up the digital collections; and reduce duplication of work-with improved access and access to a wider library collection, researchers and scholars can effectively review work that is already carried out by most of their peers. Gartfield (1994) stresses that scientists should get into the habit of searching for literature in order to avoid the accidental duplication of research and the wasted time, effort, and expense involved.

Staff Development

According to Mulrenum and Greser (2001), increasingly there can be benefits such as access digital catalogue that improve collection management by creating digital records about the collection. Developing digital profile can also

have long term benefits such as opportunities to users in technological infrastructure; create opportunities to develop technological skills base among staff (Mulrenum and Greser 2001).

METHODOLOGY

Research Design

The study adopted qualitative research design to investigate the processes followed in digitization of theses and dissertations at UFH as well as to identify the prospects associated with digitization of theses and dissertations at UFH.

Population

The population consists of all those librarians who are involved in the digitization project within the UFH Alice library, Eastern Cape Province of South Africa. These librarians account for the entire total complement of twenty (20) staff members.

Sample and Sampling Techniques

A purposive sampling technique was used to select three (3) librarians from the entire total population of twenty (20) staff who are involved in the digitization project at UFH Alice in the Eastern Cape Province of South Africa.

Research Instrument

Data for the study was collected through interviews and were used to elicit information from the participants. The interview questions consisted of semi-structured questions which made it easy for the participants to express their views.

Data Analysis

Data collected was analysed using conceptual analysis.

Validity and Reliability of Research Instrument

A semi-structured questionnaire was used to elicit information from the participants. Experts in the same field validated the instrument.

FINDINGS AND DISCUSSION

Gender

The participants who participated in this study were all male. As earlier stated the gender mix would have been an interesting variable to observe but unfortunately all participants were male. It is difficult to ascertain why females are not part of the digitization project. It could have been a number of reasons some of which could be embedded in the gender inequality facing most African nations.

Age

The ages of the participants ranged from 25 to 40 years and above. Two participants were within the age of 40 and above while one participant was within the age of 25-30 years. The researchers had hoped to find a correlation between age and technology enthusiasm. According to Wells (2008, 2014), young people are usually future-oriented and they see their life ahead of them. As a result, they are more enthusiastic about technologically related work than older people but unfortunately the sample size could not bring out this hypothesis.

Level of Education and Further Training

The participants revealed that they had post graduate training in Library and Information Science within their institution of learning. One participant is pursuing a Master's Degree in Library and Information Science. It can be said therefore, the level of education of participants is not a factor that could have affected their work in the digitization process. Digitisation is a specialised project that needs further specialised skills as Alhaji (2007) rightly puts it that personnel are the most important library's resource. It is therefore important to assign the personnel with the right skills and attitudes to handle the various tasks associated with the digital library project in computer knowledge, scanning and all related technical processes. The participants however, acknowledged that they underwent short training courses related to the digitisation project. They were not very clear which specialised training they undertook. However, models on digital library education are still evolving and can be witnessed by variety of courses offered

in Library and Information Science Programmes (LISP). Spink and Cool (1999) in a global survey on digital library education found out that a few library schools were offering courses and digital libraries and that a sound conceptual framework for digital library education had yet to be developed. However, while many schools had not developed digital library courses, they are aware of the need to develop curriculum in this growing area of research and practice. Liu (2004), in another web-based survey of global trends in digital library education, observed that new and positive directions in digital library education had been posted in several LISP. There were many hands on digital libraries courses although some of the courses were not up-to-date in the field of Library and Information Technology (LIT).

Processes of Digitizing Theses and Dissertations

The participants were asked on the guideline policies of digitization of theses and dissertations in their institution of learning. All participants concurred that students were required to submit a minimum of two hard copies and one soft copy for digitization. The participants revealed further that the submitted theses cannot be embargoed for more than two (2) years. The onus rests on the student to make sure that copyright and plagiarism rules are adhered to. Concerning the copyright issues the participants were at liberty to disclose the on-going debate as to whether the intellectual property of theses should reside with author (students) or the University. It is a continuous controversy which all participants' state is difficult to solve.

The participants were asked on the standards being followed to digitize theses and dissertations at the University. They all agreed that there are standards they adhere to when digitizing the theses and dissertations. Theses and dissertation are captured on content pro using the Dublin core format used by many libraries worldwide. That the standards act as a procedural framework to ensure uniformity and quality of output. As discussed earlier that digitization and standards policies provides focus and vision concerning how the whole process of digitizing whatever information that must be digitized is carried out. It also provides direction as to which activities must be prioritized, given the

challenges of budgetary constraints and shortage of adequately trained staff members. It is a document that provides the way forward in terms of linking the whole digitization process with the overall vision and mission of the institution.

Prospects of Digitization

The participants acknowledge that, digitization plays an integral role in supporting of research trajectory and alleviates the sharing of knowledge worldwide. The participants revealed that although, the University has not completely digitized all their theses and dissertations, the following are the prospects of digitizing theses: (1) Digitizing theses begets more knowledge (generates more knowledge), (2) It shows the research output of the University, (3) It enables the sharing of ideas and information, and (4) Digitized theses can be used simultaneously without any limitations. Digitization of library Universities has brought immense opportunities to both users and service providers similarly. Several scholars have put forward different pros and cons of library digitization. Alhaji (2007) cited easy of information access, wider scope of coverage, improved information sharing and improved preservation as some of the benefits digitized libraries offer.

Water (1998) summarized the major objectives of digitization of resources in the library as to creation of institutions repositories which can be accessed online. One of the specific objectives is to develop a mechanism for collection, storage and preservation of information resources. In agreement with Water statement, every institution should therefore adopt a new trend of creating an institutional repository that allows their resources to be accessed online. The Association of Research Libraries (ARL) have summarized the major requirements for digital libraries as: Hardware and software resources, a structural organization, skilled manpower, resources, management skills and technological skills. Therefore, acquisition of these resources and its effective utilization will lead to a lot of benefits listed below (Water 1998):

- Universal Access- people from all over the world gained access to the same information as long as an internet connection is available;
- Capacity- there are limited storage spaces in traditional libraries while digital libraries

have the potential to store much more information, simply because digital information requires very little physical space to contain them;

♦ Cost- the cost of maintaining a digital library is much lower than that of a traditional library. A traditional library must spend large sums of money paying for staff, book maintenance, rent and additional books;

♦ Improved searching methods through different search engines and manipulation of information;

♦ Improved facilities for information sharing;

♦ Accessibility to information is made possible in a short time; and

♦ Improved collaboration with other information institutions and centres, opportunities to form consortia where they can pull their resources together and get a good bargain of scale to acquire library software.

Opinion from the Participants in Order to Enhance the Process of Digitizing Theses and Dissertations

In concluding the interview survey, the researchers asked for the professional opinion of the participants on what they thought should be done to improve the process of digitization of theses and dissertations at University. The participants suggested that the University should recruit and train more staff to equip them with the necessary digitizing expertise to efficiently execute the process of digitization. Also the library department should be allocated more bandwidth because the current allocations do not seem to be sufficient. The participants revealed further that cooperation among the library, examination department and faculties is required for smoother out the digitization process. Additionally, better processing resources such as powerful computers, scanners etc. should be put in place in order to have a successful process. The institution must have a sufficient budget so that it can provide proper resources to the process.

CONCLUSION

This study has explored on the digitization of thesis and dissertation as well as the pros-

pects faced by the University of Fort Hare in its library digitization feat. Considering the fact that this process began in 2008 and up to now the library is not fully digitised encouraged the researcher to look into the challenges that could be uniquely stalling this development. Based on the findings from the interview conducted and observations made, the researchers established that the digitization process at the University is facing a serious challenge of under staffing notwithstanding the fact that the digitization process is a labour intensive scheme. The study also pointed out that the digitization process started in 2008 which means there is a great backlog of theses and dissertations of all the previous years. It is an overwhelming task therefore for only three (3) staff members to undertake it besides carrying out other library related work. This is coupled by the fact that the university is underfunded. The funding issue is a huge determinant to whether the digitization project will succeed or not as discussed by many authors in the literature review.

RECOMMENDATIONS

♦ The University library should expend a percentage of their expected budgets to commence digitization activities and also enhance their readiness to carry out digitization projects.

♦ Libraries should enhance their technological infrastructure, develop human resources, secure funds, and develop digitization plans and policies.

♦ Digitization requires a mix of LIS and Information Technology (IT) skills. University libraries, especially the larger ones, may introduce new designations and offer competitive pay scale to attract skilled human resources. Furthermore, libraries may also seek in-house help in digitization projects from IT departments of their universities

♦ The UFH library needs to make long term commitment with digitization projects.

ACKNOWLEDGEMENTS

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