

PROBLEMS AND CHALLENGES OF COLLECTION DEVELOPMENT OF INDIAN LIBRARIES IN DIGITAL ERA-AN ASSESSMENT

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ABSTRACT

The primitive idea of 'library' connoted a storehouse of written document mainly based on clay tablets, palm leaves, waved wooden boards, papyrus role, etc. but with the advancement of knowledge in the human civilizations, the library has become the nerve centre of the civilized society. It becomes the sign and symbol of incentive to become dynamic and regarded the rich springs from which knowledge flows out to irrigate the wide fields of education and culture. It becomes an important medium of continuing self-education. With the increase in the demand for libraries, there arose the concept of collection development. Collection as defined by the Webster Dictionary is a "publication containing a variety of works". However, in the connotations of library science, the term collection refers to book selection, library acquisition, building the collection and developing it (i.e. collection development). All these terms are used to describe the process of building a collection in the library, following certain canons and principles and to add library materials to the existing holdings of the library annually or periodically. But, there has been a metamorphosis in the terminology and 'collection development' that has replaced the other terms in general. An in-depth study of the varied nuances of meaning of the concept is, therefore, imperative before the real study takes off. In earliest times, there was no distinction between a record room (or archive) and a library, and in this sense libraries can be said to have existed for almost as long as records have been kept. A temple in a Babylonian town of Nippur, dating the first half of the 3rd millennium BC, was found to have a number of rooms filled with clay tablets, suggesting a well stocked archive or library. Similar collections of Assyrian clay tablets of the 2nd millennium BC were also found in Egypt. Ashurbanipal (reigned 668-c. 627 BC), the last of the great kings of Assyria, maintained an archive of some 25,000 tablets, comprising transcripts and texts systematically collected from temples throughout his kingdom (Encyclopedia Britannica, 2004; CD-ROM, p.2291). Above this background, the article has to emphasized over the problems and challenges of Collection development of Indian libraries in digital era.

Keywords: Digital library, problem, archive, learning, India

Introduction

India has made significant progress in the design and development of digital libraries and institutional repositories. There are about 25 working digital libraries/repositories at the national level and many universities and institutions have taken the initiative to design and develop institutional repositories and digital libraries of heritage or manuscript documents. Digital library initiatives at the national and regional levels are contributing to the provision of access to legacy as well as current information in electronic format. Hence, it is expected that LIS education will develop the required manpower to manage existing digital libraries and to further expand the digital library initiatives. However, though the LIS departments have responded positively to this challenge, they seem not to have reached the expected level in producing LIS professional manpower with the knowledge and skills required for designing and maintaining digital libraries. Above all, library collection is the pool of achievements of the past preserved for the benefit of present and future generations. The digital documents with plenty of new attractive features as detailed below has brought about a revolution in our lives. The features of 21st century information and media are (Satija, 2003): (a) High compact storage; (b) Ease of reproduction, multiplication and manipulation and transmutation; (c) Contents can be very easily detached from its media Or container; (d) Ease of migration of contents from one medium to another; (e) Ease of transmission, communication and storage; (f) Hypertext and multimedia; (g) Seamless integration of print and electronic resources; (h) Sophisticated and multipronged searches through keywords, free text, Boolean operators, lass numbers and natural languages processing; (i) Wall less libraries leading to the vision of multimedia global virtual library (MGVL) inaugurating an era of "Death of distance"; and (j) Convergence of technology, which is getting more powerful each day.

Objectives of The Study

Libraries are the repositories of the wisdom of ages stored in the form of recorded information for use of present and future generations. Digital technology has made it more easy and comfortable to apply. This wisdom and use the collected information for further research and overall development of the society. This paper describes various trends in collection development in digital environment. The changes that have occurred in acquisition, retrieval and storage of information due to technological developments have been discussed. Limitations, restrictions and problems being faced by librarians and readers due to the same have also been discussed. The way these developments have affected the academic environment and changed the role of librarian has also been portrayed. The present study will be conducted with the following objectives:

- (a) To study the conceptual frame work of collection development in digital era;
- (b) To discuss the Problems and challenges of collection development ;

Review of Literature

Ameen. K (2009) it aims to discover perceptions of university librarians regarding the needed competencies for collection managers in Pakistan in the emerging digital paradigm. The mixed-method approach was followed using a questionnaire and interview to collect data. The self-completion questionnaire was sent to central libraries of 40 major, accredited universities of Pakistan and 30 responses were obtained. Then, semi-structured interviews were conducted with 20 librarians using interview-guide. Interviews were transcribed to analyze and categorize according to the thematic approach. The interpretation and comments of the interviewees have also been reported to strengthen the arguments. It was found that the university libraries of Pakistan are gradually adopting a digital paradigm and providing access to hybrid collections. But, collection managers would not

perceive fully the competencies needed to manage hybrid collections. It also appeared that there were meager opportunities for university librarians to develop their competencies through regular and continuing education. This is the first study on the needed competencies for collection managers in Pakistan.

Bin,Feng and Miao,Qihao (2005) it emphasizes the large number of Chinese libraries keep some sort of electronic publications ,mainly formal publications on CD-ROM and online, the usage is quite different from one library to another. While the hardcopy business process is mature, the rules and regularities of electronic publications in libraries are under development; many business models are on a trial basis. This paper plans to investigate what and how many of these electronic materials should be bought and brought to the users, and how they are used, which are still embarrassing questions for librarians. The authors made an inquiry into the current status of formal electronic publications, including e-books and e-journals at the two major library groups: public and university libraries, as found out from the explanation of the gap by literature analysis and interview.

Brar,Navjit and Somerville,Mary M.(2009) It describes the Soft systems methodology processes fortified by collaborative evidence-based librarianship (EBL) principles can guide end-user involvement in digital library project design and development. This paper aims to reveal the efficacy of this inclusive human-focused approach for building systems through user-generated research example From 2003 to 2006, user-centered interaction design guided increasingly complex human-computer interaction projects at California Polytechnic State University. Toward that end, project planners invite polytechnic students, supervised by computer science professors, to assess peers' information seeking needs. This student-generated evidence informs creation of paper prototypes and implementation of usability tests. Sustained relationships between planners and beneficiaries permit iterative evaluation and continuous improvement of design concepts and product functionalities.

Krishnamurthy, M. (2005) Aims to share the experience of the design of digital library in relation to digitize of database and making use of user community with a view to give an efficient library practice. It presents a case study approach to the design of digital library service to provide insight in to the development of online resources. The important Findings are services like online resource, online public access catalogue (OPAC), consortium and how these sources are helpful in building digital collection in Indian Statistical Institute Bangalore library are discussed.

McCarthy, J.P. (2005) It focused on a collection of print journals was used as an object for consideration. Physical and heritage aspects of the collection are examined and questions are posed regarding the wisdom of future retention in response to increased demand for electronic alternatives. The findings are the emerging trends predict a predominance of periodical literature in electronic form. The future of local remote storage for low demand printed journal collections needs to be evaluated in economic as well as cultural terms.

Ray, Joyce. (2004) study is based upon the federally-funded independent granting agency, The Institute of Museum and Library Services (IMLS) became involved in digitization in the late 1990s when Congress gave it statutory authority to fund digitization of library and museum collections. Since that time, IMLS has funded more than 100 exemplary digitization projects through its National Leadership Grant program. Collectively, these projects have helped to identify best practices for the creation, management, preservation and use of digital content. Most importantly, they demonstrate the important role that museums and libraries can play in supporting both formal education and lifelong learning. Ultimately, this work will help libraries and museums to fulfill their roles as educational institutions. IMLS grants support the spectrum of learning from independent inquiry through formal education to the development of "learning communities"

Zhang, Xiaoyin and Haslam, Michaelyn. (2005) It investigates to address the UNLV Libraries

movement toward a predominantly electronic journal collection including evaluation of library collection and reevaluation of organizational structure, staff resources and workflow to find the best ways to provide library users with timely and reliable access to electronic resources. A range of UNLV Libraries initiatives in building and managing electronic resources is described to demonstrate how the library moved from a predominantly print environment to a predominantly electronic environment. The paper consists of sections: development of the electronic resources collection, reengineering acquisitions/periodicals, new responsibilities and new skills, next steps, and conclusion. The findings are since 1999, the composition of the Libraries journal collection has been dramatically changed. The percentage of print-only subscriptions decreased from 59 percent in 1990 to 20 percent in 2004, while electronic journals jumped from 35 percent to 75 percent. The percentage of Libraries materials acquisitions budget spent on electronic resources rose by at least 10 percent each year. The proliferation of electronic resources had a major impact on the acquisitions/serials activities from handling physical objects to initiating and ensuring ongoing access to electronic resources. It has resulted in a workflow that requires ongoing review and change to accommodate the constant technological developments that have impacted the management of information delivered electronically.

Fabbi, Jennifer L. and Watson, Sidney D. and etal (2005) It reflects on activities and developments related to the 3Me Digital Materials Flow Management since its implementation at the UNLV Libraries, including system hardware and software developments and the UNLV Libraries' evolving relationship with 3Me. Following an introduction which highlights the major 3Me Digital Materials Flow Management components in place at the UNLV Libraries, product improvements that have expanded the functionality of the system are detailed, patrons and staff benefits of the technology are described, and RFID privacy issues at the UNLV Libraries are examined. Expanded capability and use of the 3Me Digital Materials Flow Management system has allowed the UNLV Libraries to establish more efficient processes for undertaking collection management activities, such as inventory and weeding. The system has also had a positive impact on customer service. Benefits of the system currently outweigh the potential risks in terms of patron privacy.

Castelli, Donatella (2006) the purpose of this article is to introduce the digital libraries of the future, their enabling technologies and their organisational models. The paper first discusses the requirements for the digital libraries of the future, then presents the DILIGENT infrastructure as a technological response to these requirements and, finally, it discusses the role that libraries can play in the organisational framework envisioned by DILIGENT. Digital libraries of the future will give access to a large variety of multimedia and multi-type documents created by integrating content from many different heterogeneous sources that range from repositories of text, images, and audio-video, to scientific data archives, and databases. The digital library will provide a seamless environment where the co-operative access, filtering, manipulation, generation, and preservation of these documents will be supported as a continuous cycle. Users of the library will be both consumers and producers of information, either by themselves or in collaborations with other users. Policy ensuring mechanisms will guarantee that the information produced is visible only to those who have the appropriate rights to access it. The realisation of these new digital libraries requires both the provision of a new technology and a change in the role played by the libraries in the information access-production cycle.

Discussion of the Paper

Future of Digital Libraries

DLs were seen essentially as repositories of digital texts accessible through a search service that was operating by indexing information stored in a centralized metadata catalogue. The construction of a

DL was very resource-consuming since, for each new DL, both the content and the software providing the DL functionality were built from scratch. As a result of this development approach, only powerful user communities or user communities with in-house computer science technical skills (Leiner, 1998) could afford the building up of DLs. These DLs were created to serve end-users only as consumers of information. They did not provide any functionality for submitting the documents. The submission was usually performed either by the author or by a librarian operator by means of specific procedures residing outside the DL. Today, the requirements imposed on DLs are very different from that early time. A novel notion of DLs, also referred to as “knowledge commons” (Ioannidis, 2005), has recently emerged, whose fulfillment requires new technologies and new organizational models. According to the most recent understanding, the DLs of the future will be able to operate over a large variety of information object types – far wider than those maintained today in physical libraries and archives. These information objects will be composed of several multi-type and multimedia components aggregated in an unlimited number of formats. These, for example, can mix text, tables of scientific data and images obtained by processing earth observation data, or they can integrate 3D images, annotations and videos. These new information objects will offer innovative and more powerful means to researchers for sharing and discussing the results of their work. In order to be able to support these objects, the DL functionality has to be appropriately extended far beyond that required to manipulate the simple digital surrogates of the physical objects. In order to support these objects the DL may need considerable resources. For example, the creation and handling of the new documents may require access to many different, large, heterogeneous information sources, the use of specialised services that process the objects stored in these sources for producing new information, and the exploitation of large processing capabilities for performing this tasks. New DLs are also required to offer a much richer set of services to their users than in the past. In particular, they must support the activities of their users by providing functionalities that may range from general utilities, like annotation, summarisation or co-operative work support, to very audience-specific functions, like map processing, semantic analysis of images, or simulation. The availability of this new DL functionality can, in principle, change the way in which research is conducted. By exploiting such types of DL, for example, a scientist can annotate the article of a colleague with a programme that extracts useful information from a large amount of data collected by a specific scientific observatory. This programme, executed on demand when the annotation is accessed, can complement the content of the paper with continuously refreshed information. In the new DLs users are not only consumers but also producers of information. By elaborating information gathered through the DL they can create new information objects that are published in the DL, thus enriching its content. The new DLs are thus required to offer services that support the authoring of these new objects and the workflows that lead to their publication. In parallel with the above evolution of the role of DL systems, we are now observing a large expansion in the demand for DLs. Research today is often a collaborative effort carried out by groups belonging to different organizations spread worldwide. Motivated by a common goal and funding opportunities, these groups dynamically aggregate into virtual research organizations that share their resources, e.g. knowledge, experimentation results, or instruments, for the duration of their collaboration, creating new and more powerful virtual research environments. These virtual research organizations, set up by individuals that do not necessarily have great economic power or technical expertise, more and more frequently require DLs as tools for accelerating the achievement of their research results. This new potential audience demands less expensive and more dynamic DL development models. They want to be able to set up new DLs that serve their needs for the duration of their collaborations in a acceptable timeframe and with an acceptable cost. The current DL development model cannot satisfy this large demand; a radical change is needed if we want to be able to address these new emerging requirements. A great contribution towards the satisfaction of all the above-mentioned requirements can certainly come

from the introduction of mechanisms that support a controlled sharing of resources among different organizations. Sharing in this context is not only applied to repositories of content, as is usually meant today, but can be extended to any type of resource needed to build a DL, i.e. language and technology resources, applications, computers and even staff with the necessary skills for supporting the DL development, deployment and maintenance. Supporting this type of sharing requires the introduction of appropriate solutions at both the technological and organizational levels. These two levels are not independent; instead they strongly influence each other. In fact, the availability of a good technological solution favors the creation of an appropriate organization, and vice-versa, a successful organization stimulates the development of new supporting technologies.

Problems of Collection Development in Digital Era

(1) Problems of user-friendly environment

We found that there were several inconveniences, including difficulties to find a terminal in the library (providing some electronic publications can only be accessed on the site), to locate specific database through the library resource portal and to search each individual database. A user-friendly environment (meaning both the physical settings and the organization of user interface) is of great importance for the users who used to hesitate to try the unfamiliar electronic publications. To set up a wireless local area network (LAN) within the library coupled with proper management is an effective solution to the problem of physical inconvenience and at the same time without excessive investment in hardware by the library. The wireless LAN will make it much easier for users to enter the LAN at any place within the library to explore the e-journals with their own notebook PC, so a win-win situation will be created. With the limitation of location, the scheme may be acceptable to content providers. It is critical for users to feel comfortable with resource organization, both at the front page and at the back of the stage. It is ideal, but currently not very realistic, to integrate all literature within a library, no matter whether they are printed, networked, digitized, or on microfilm and disk. Electronic publications themselves can be of different format, organization logic, and metadata structure and database software. What can be done at first stage is to integrate all the e-publications into the resource portal. When we have alternatives, those user-friendly, like "one-stop" ISI Web of Knowledge, can be our first choice if the price/performance ratio is competitive.

(2) Problems of user training

The problem regarding user training is important, henceforth, to upgrade the users' skill to access e-publication is training. The training is designed according to the uncertainty and mobility of readers within the public libraries (Williamson et al., 2003). Most public libraries have user-training programs but these free courses are not enough. A survey revealed that more than 10 percent of households in India now have at least one PC, and the proportion is expected to grow, so in the long run the situation could be alleviated. The most effective way of enhancing the utilization of e-journals is to lower or even cancel the fees charged on users as much as possible.

(3) Problems of Digital Divide

Current day society is marked by a growing need for information skills at all levels, including school, university, workplace and ordinary life. This is in line with the increase in access to the internet and the diversity of people using the internet. Similarly, there is an increase in outcries to bridge the digital divide. Against the background that will be portrayed in the following paragraphs, the authors realized the increased urgency to bridge the digital divide. According to our interpretation the digital divide concerns much more than access to technology infrastructures and information seeking skills. To truly bridge the digital divide, we need to increase the spectrum of skills we address. From an information science perspective, we will use our experience in teaching information retrieval skills, knowledge of information seeking behavior and teaching per se to suggest a theoretical model in this article that ranges from offering access to an information and communication (ICT) infrastructure to

information sharing, and building communities of practice on the highest level. On the one hand, we therefore have an ICT-driven environment and outcries for information skills for everybody, but on the other hand there is an increased concern for the influence of the digital divide. The most widely accepted description of the digital divide concerns the difference between those who have access to information (the have's) and those who do not have access to information (the have not's). Students often come from very diverse backgrounds in terms of their opportunities to access and use ICT. Students coming from rural areas often, for example, do not have access to ICT. It is generally assumed that such diversity might impact on their ability to function in the changing environment and to prosper. The problem, however, is more complicated. At university level it has been found that even if students are offered access to ICT and the opportunity to build computer and information literacy skills, there still seems to be a divide when putting these skills to use.

(4) Problem of library Classifications

A library classification is a system of coding and organising library materials according to their subjects that simplifies subject browsing. Library classification systems have been used by catalogers to classify books and other materials in physical libraries for over a century. The two major classification systems used today in libraries around the world are the Dewey Decimal Classification system and the Library of Congress Classification (LCC) system. Since their introduction in the late eighteenth century, these two systems have undergone numerous revisions and updates. Large-scale digital libraries, such as our targeted syllabus repository, are intended to hold thousands of items just like physical libraries, and therefore require deploying flexible query and information retrieval techniques that allow users to easily find the items they are looking for. In order to provide highly refined search results, the system needs to go beyond the traditional keyword-based search techniques, which yield a large volume of indiscriminant search results irrespective of their content. Classification of materials in a digital library based on a pre-defined scheme improves the accuracy of information retrieval significantly and allows users to browse the collection by subject. However, manual classification is a tedious and time-consuming job requiring an expert cataloguer in each knowledge domain represented in the collection and, therefore, deemed unfeasible in many cases. Automated text classification or categorization (ATC), i.e. automatic assignment of natural language text documents to one or more predefined categories or classes according to their contents, has become one of the key techniques for enhancing information retrieval and knowledge management of large digital collections. Sebastiani (2002) provides an overview of common machine learning-based methods for ATC, such as naive Bayes, k-NN, and SVM techniques. These text classification algorithms have been successfully used in a wide range of applications and domains, such as spam filtering and cataloguing news articles and web pages. However, to the best of our knowledge, ATC methods are yet to be adapted adequately for automatic classification of a large collection of syllabi based on a standard education classification scheme such as International Standard Classification of Education (ISCED, 1997).

(5) Problem of Staff Development Approach.

To successfully meet the future, we believe that libraries must change from static resource centers to dynamic centers of instruction, exploration and learning. Achievement of this ideal vision challenges many traditional conceptions of the library as a physical entity as well as a service provider. The relationships with various university constituencies and campus partners must be revisited and reframed, both internally from library staff members' points of view, as well as externally from faculty and students' viewpoints. In order to accomplish needed changes in perception and outcomes, we employ interactive planning to advance library staff members' capacity to make transformative design/redesign decisions. Our dialogue-driven staff development approach is based on systems thinking frameworks that create collaborative learning opportunities in the workplace. This serves to enhance participants' abilities to share information for innovative knowledge generation within work

teams, learning communities, and social networks. Doing so will increase the perceived public value of the library in the academic purposes.

Challenges of Collection Development in Digital Era

Although a large number of libraries keep some sort of electronic publications (mainly the formal publications on CD-ROM and online), the usage is quite different from one library to another. While the hardcopy business process is mature, the rules and regularities of electronic publications in libraries are under development; many business models are on a trial basis. What and how many of these electronic materials should be bought and brought to the users, and how they are used, are still embarrassing questions for librarians. As a part of the effort to improve the usage of electronic publications in public libraries, the authors made an inquiry into the current status of formal electronic publications, including e-books and e-journals within the two major library groups: public and university libraries. We found that although the e-book (including both the full-text contents and the hand-held readers) is well publicized in India, its development has been left behind by that of the e-journal. The e-books experienced a detour of development; some earlier projects of book imaging were trapped in the intellectual property problem. Currently very few commercial providers of e-books are in the market – even the biggest one can provide only a small portion of the books published every year, while many hardcopy book publishers would rather confine their electronic version service to their own homepages. On the other hand, e-journals have been coming in a comparatively smooth way. The foreign e-journal dealers, for example, Springer, Ebsco, Elsevier Science, etc., have also entered this market successfully. (Feng Bin and Qihao Miao, 2005).

(1) Challenges in collection Development in Electronically

The major challenges that we face today in this regard are: Complicated procurement and preservation system There are a very few reliable suppliers of digital documents in India. The lack of comprehensive and up to- date selection tools for digital documents further adds to the problems of a librarian. Foreign documents and far off markets are other problems in the way of electronic collection development. Even selective Digital archive will be massive. Who is to ensure that governments, organizations or publishers will maintain these archives for centuries in future? Hardware and software needed to preserve today's documents and use them decades later may not work. The hardware used to gain access to digital information changes radically and quite frequently. This means that preservation programmes must also involve considerations needed for access in future.

(2) Challenges regarding Technological Up gradation

Periodical transfer of digital material from one hardware/software configuration to another or from one generation of computer technology to a subsequent generation is quite a common trend and a big challenge to e-collection development. The purpose of this migration is to preserve the integrity of digital objects and to retain the ability for clients to retrieve, display and otherwise use them in the face of constantly changing technology (Nagar, 2003). Obsolescence of equipments required to access digital information directly affects the longevity of digital information (Bhatt & Singh, 2004). To ensure longer life of the digital information a continuous development and up gradation of information storage and access techniques and technology is a must. Non compatibility of organizational culture to digital environment Organizational cultures of most of the libraries due to their following features becomes a great hindrance in the way of e-collection development (Deoghuria, 2004). The others are : (a) Non availability of full time highly skilled computer professional in libraries; (b) Lack of coordination between computer professionals within and outside the organization; (c) Lack of interest to keep track with the ever-changing information seeking

behavior of library users;(d) Lack of interest to add values to their services;(e) Lack of interest to interact with users; (f) Lack of interest to utilize physical space of the library; and (g) In developing digital environment electricity/power plays a major role. We cannot think of digital library, which can work off efficiently without power for several hours. The other related problems like poor quality of telecommunication services, lack of technology standards, legal restrictions are also there.

(3) Challenges regarding Financial constraints for collection development

Cost involved in the creation and maintenance of digital library environment is quite high. In this context, financial restraints are much more severe in developing nations like India than the developed ones. Nowhere in the world are library budgets keeping pace with the growth of information, documents and ever-increasing demand for them. The budget allotted to most of the libraries, however remain static year after year. Even if there is no such cut, the purchasing power of the allotted money goes on dwindling due to inflation. Though the problem of shrinking budget is a universal one, it is quite serious in India on many counts.

(4) Challenges regarding IT skill Manpower

Traditional library science education with less emphasis on IT skills still continues in Indian universities. As a consequence of it, the library personnel in most of the libraries in India are happy with the existing routine procedures and services. In the recent years many libraries have hired computer professionals to handle the purchase and other issues related to digital documents. This gives an assumption that computer professionals are taking precedence over the library professionals. It has happened so because many a time librarians have given responsibilities of selecting and handling electronic resources to computer professionals. Some complications are also there due to the advent of new resources. All these changes have happened quickly, and adapting to them is not always easy or comfortable. There are no opportunities for continuing professional education for the collection development methods. Gradual shift-over towards digital info high-tech from traditional rudimentary adherence has given rise to certain fears in the minds of the library professionals (Das, 2004).

(5) Challenges of user service

Librarians need not to teach readers how to browse a hard copy book, but they may have to teach users how to use an internet browser. The status of so-called self-service, where the users themselves grope in the dark of virtual space, will inevitably harm the full exportation of e-journals. The situation will be improved substantially if librarians take a more proactive role to help users, especially newcomers. The accumulated experience of librarians in digging up bits of knowledge out of e-publications opens up a wide area of in-depth user service. Subject reference librarians can make use of advanced tools, from search engine to knowledge mining kit, in order to find an answer to the specific question rather than an article in certain journals (Connaway and Lawrence, 2003).

Conclusion and Suggestions

The advent of digital libraries at the turn of the twenty-first century has been mired with several aspects including the development of appropriate technologies, issues related to storage, rights management, and so on. Digital libraries, along with associated technologies and related issues, are still somewhat in infancy with very few fully established digital libraries the world over. The concept of digital libraries itself varies greatly with several known definitions. With digital library technologies maturing, storage capacities increasing and digital access improving, the focus needs to be crystallized on content for digital libraries. However, research on digital libraries so far has focused on the containers and conduits rather than the contents. A recent review of digital libraries in India found that out of 63 studies, only two have discussed about content in comparatively greater details (Mahesh and Mittal, 2008). Other studies also reflect a similar trend (Bearman, 2007; Fox and

Urs, 2002). This clearly shows that digital library creators as of today focus less on content compared to other aspects. Consequently, it may be appropriate to conclude that copyright issues with regard to content in digital libraries are hardly on the radar of digital library creators. Although, digital library creators presently focus on areas other than content, the creators realize that content is the key for success. It has been reported that for the success of information gateways, the effective selection of high-quality content forms the chief rationale for the gateway approach. The content includes selection criteria, technical and policy issues, management, recommended standards and conventions, creation of metadata, provision of browsing and searching (Heery, 2000). Digital content creation requires strategic leadership, sustainability plans, and cognizance of best practice in the field. During creation of digital content, staff gains valuable skills that can be utilized by taking contract projects. This will also create new audiences for such types of material there by opening up the collections to the world. However, high-quality digital content creation is an expansive undertaking (McMenemy, 2007). It is well known that in a largely print based traditional library setting, acquiring the content is a relatively easy task. But this is not the case with digital libraries. The variability of digital content per se and the variability in the availability of content is increasingly becoming a problem for digital libraries. Variability of digital content per se include the types of content such as text, audio, video, pictures, etc. types of file formats such as DOC, PDF, JPEG, AVI, and so on. Normalizing, these and other varied content in digital libraries may be less challenging today owing to technological developments. But choosing content in light of copyright issues may be a daunting task. Although, the copyright issues with regard to digital content have been a subject of discussion in earlier studies, the same have not been looked at from the content creation point of view.

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