

Research and Technology: Emerging Issues of ETD, Values and Digital Libraries

Alka Rai

Abstract

No doubt, technology in library has given some alleviation to library professionals and users but at the same time, technology has put some questions on adhering with research ethics while taking help from open learning resources. Digital divide is one such challenge which widens the resource and knowledge gap between various groups of users. Only the people equipped with required infrastructure and technology are going to get maximum benefits of the electronic thesis and dissertations.

Key Words: Research, Technology, ETD, Values, Digital Divide, eBooks, Digital Repository, Shodhganga

1. Introduction

Technology has been a catalyst to change the outlook and services of the libraries today. The printing technology was a turning point in the history of library science as by 1890s, three high quality printing techniques were in practice. The three printing techniques were –Letterpress, rotogravure and metal plate lithography Gorman, (2001)

Berger, (2009) discussed in details the three types of printing processes - Moveable type printing because the ink adheres to a raised surface from which is it imparted to the printed surface. The second basic kind of printing in the hand press period is intaglio that is, printing from inks delivered to a surface from beneath the surface of the printing block. The third type of printing is called plano- graphic and the process is referred to as lithography, which involves printing from the flat surface of a stone. The printing technology ensured the advancement of preservation of knowledge but now photocopy technique has put a serious concern on copy right issue.

2. Computer, Internet and e-Books in Library

Introduction of computer in the library system had not only changed the services offered by the library but also enhanced the capability of managing resources and keeping the records. So by the late 1950s library management system began to change. Computer technology had started changing work management in many sectors. “It was a heady period of optimistic technological expansionism that captured the imagination of the general public” (Rayward, 2002). The aspect of computer use in libraries was posing some new challenges. Libraries gradually begin to experience new sets of pressures. The expansion of higher education and investments in research projects and institutions, generated need of the modernization of old libraries vis a vis demands for new libraries. (Bregzis, C. Gotlieb, and C. Moore, “The Beginning of Automation in the University of Toronto Library, 1963–1972.”.)

Libraries were expected to equip with rapidly increasing volumes of publications specially scientific and technical literature.

With addition of internet- customized learning platforms have emerged and give individualistic space for learning. Open resource of learning is available on popular web /search engines but along with the availability of free resources, authenticity of the content is a serious issue. Readers often do not know the content writer and rather than going through the whole text, just select few pages/paragraphs and put it as a genuine matter. With high volume of data flow, no one has time and mechanism to validate the digitized information beyond certain level.

The first eBook “United States Declaration of Independence” came in to public domain in July 1971. Though some initiatives on e-books were taken up before the Second World War but the more players join the field by 1990s. The “United States Declaration of Independence” was the Project Gutenberg initiative which has the credit of having the first digital library in the world(Lebert, 2009).

The main objective of the Project Gutenberg was to produce electronic versions of literary works and dissemination of the e-versions of the literature globally. Project Gutenberg, an initiative of Michael Hart had a vision of free access to a digital library for all. Project Gutenberg completed its 10th eBook which is “The King James Bible”(1769) in August 1989(Lebert, 2009). The writings of William Shakespeare got published electronically as 100th eBook by Project Gutenberg in 1994. William Shakespeare’s work was compiled electronically under the title “The Complete works of William Shakespeare”. Pioneering work of Project Gutenberg did not stop here and they completed the digitisation of 1000th eBook in 1997 with the title "La Divina Commedia" de Dante Alighieri (1321). With economic liberalization, globalization and technological breakthroughs, some more publishers started projects on e-books during mid 1990s. By 1996, first online book store Amazon.com was established and starts selling eBooks .These changed economic and technological landscapes ,forced libraries to transform their services and management that’s lead to a changed role for the library professionals.

Moving gradually from traditional roles, Libraries started taking over on web space and developed their technology based services and management system. The initial efforts were made to produce online records of the print collections and user data base. By end of year 2000, more rigorous work were done by the libraries in India and digitisation of their print collections and other materials was initiated. With the beginning of 2001, more access of internet and availability of eBooks and other resource materials in many languages, enhanced the number of library users quickly. Along with amazon, some more ventures join the wagon of online book stores. During the same period, the leading publishers started offering eBooks along with print books.

3. ETD in Academia: Progress and Some Issues

Theses and dissertations are a significant element of information resources in any institutions. In India, access of theses and dissertations are generally restricted to the students, faculty and the extended university community. Off course, technological advancement has given easy access to a range of resources to researchers and writing /editing is less painful in comparison to the age of typewriters. Universities and regulatory bodies were forced to align with new age reality and new mechanism to ensure authenticity and quality of the research task. In 2009, University Grants Commission issued a notification on Minimum Standards & Procedure for Award of M.Phil. / Ph.D Degree, Regulation, 2009(<http://shodhganga.inflibnet.ac.in>). This notification made it mandatory for the research scholars to submit an electronic version of the theses and dissertations along with the print version. This notification is a critical move for academic institutions and sharing research studies with wider community through open resource channels.

Shodhganga, the repository for ETD in the country is being managed by INFLIBNET. The Shodhganga@INFLIBNET Centre provides a platform for the research scholars, where they can deposit their research thesis. The research work would be available electronically for the larger scholar community (<http://shodhganga.inflibnet.ac.in/>).

Now the UGC has made it compulsory for all the Universities to deposit all the research thesis in the Shodhganga project. Monitoring is still required to ensure that all the Universities including private universities ensure timely deposit of their research work. Awareness on Shodhganga is still low among the young researchers. More attentiveness from the regulatory authorities and researchers may boost the use and resource deposit on digital repository.(Sheeja, 2011)

Electronic Thesis and Dissertations (ETDs) has been a new feature of the academic research. Library may start raising awareness on ETD and significance of repository such as Shodhganga. The repository gives an easy access of the related research works and much useful for the new scholars to differentiate and pick up another unique topic for their own study. The open access platform facilitates further research, writing and teaching.

Dspace is another repository forum. Dspace is equipped with different modes of submission and various browsing and searching options. The advanced elements like keyword and reference linking, Citation analysis, redesigned feedback are the other silent elements of Dspace. (Mishra, Vijaiand, Noufal, & Shukla, 2007)

There has been an apprehension of the value of the online resources. ETDs are bound to grow rapidly because of offering quality data free of cost. Exchange of knowledge and expertise between scholars, universities and institutions beyond national boundaries can be guaranteed through such mechanism like ETD but the rapid growth of digital libraries has a range of issues as well. Concerns such as copyright,

quick and quality digitization, preservation of resources and dissemination to all cannot be ignored. Institutions need an efficient organizational management system into their core structure so ETD can be managed efficiently. Capacity building of the library staff is a pre requisite of raising general awareness among the scholars.

4. Values, Thesis and New Challenges

No doubt, technology in library has given some alleviation to library professionals and users but at the same time, puts serious challenges of adhering with moral values while helping the users. Digital divide and limited access of ETD are again a new paradigms of discrimination in the knowledge based society. Only the people with resources and dominant language groups are going to get maximum benefits of the technology based solutions and services. Poor infrastructure and support system at public libraries may further create an obstacle in accessing e- resources. With increasing access and popularity, cases of violation of the copyright and Intellectual Property Right becoming a less serious matter.

Pirated versions of the significant research work, text, literature are being made available on a very cut-price without acknowledging the original writer or publisher. Cases of plagiarism are on rise as technology has enabled 'copy-paste' as an easy way to produce new set of research work. Inclination of reading the full book has been reduced in general. Specific page and paragraphs are being searched/ scanned by the readers to convert the idea in to a new form of research work. Research ethics/values are being compromised in quick production of new literature. Wisdom, knowledge and information are being considered equally at this age of open resources!

Gorman (2001), has rightly acknowledged eight values which should not be compromised with the technological progression of the library services. The eight values of librarianship are as follows-

- i. **Democracy** – Gorman emphasised on using democratic lens to ensure all the users are comfortable with the technology and those who could not afford/ do not like new ways, should also be taken care off.
- ii. **Stewardship** –Gorman raised this valid point and suggests that preservation of existing knowledge and transmission of records of humankind must be available for the future generations. We can see in the past through the records available but we can't see in the future!
- iii. **Service** – The third value in Gorman's list is service and any technology should contribute in enhancing services of the library users and library professionals.
- iv. **Intellectual freedom** – Gorman further adds that the ability to monitor the specifics of the individual use of electronic resources is a tool with malign consequences in the wrong hands.

- v. **Privacy-** According to Gorman the threat to privacy posed by modern technology is real and it is hard for librarians to influence wider society but at very least we can do our best to preserve the privacy rights of the library users and the staff.
- vi. **Equity of access-** Gorman put some weight on ensuring equity of access and said “I know there is no such thing as free library and I know we often short falls in our ideals, but we should never cease from striving for the ideal of unfettered access to our services for all”.
- vii. **Commitment to literacy and learning-** All libraries are supposed to work towards imparting, creation and preservation of knowledge to contribute in the betterment of the society.
- viii. **Rationalism-** Technology used rationally and in a human context , allows us create an even better librarianship but it need to be assessed clearly and used in the light of logic and reason.

5. Some More Values Required in Practice

These above mentioned values are not the exhaustive list of principles relevant for the library ethics. As a library professional, I wish to add few more democratic values in the Gorman’s list of values in the context of library. With high flow of e-resources, **quality of the services** and **quality of the available resources** must be over arching values for any library and library professionals. Though Gorman has proposed **equity of access** to neutralize the risk of digital divide. I partially agree with him on this point. I want to include **effective use** of the available resources in his list of values. On reducing challenges of digital divide, we may move beyond equity of access to ensure enhanced **capabilities** of the users. If the ETD and other resources are available and users do not know –how to avail the services, library professionals should take an active role and guide them.

Making users updated on ETD, orientation on the values / ethics of research may lead towards quality thesis. Equipping library staff and providing resources are the critical factors to accelerate efforts on digitization, repository and dissemination of the available thesis and dissertations. Conducting periodic orientation on ETD, repository, copy right and other ethical practices must be part of the professional responsibility of the library leadership.

References

1. Berger, S. E. (2009). History of Three Basic Printing Processes. In *Encyclopedia of Library and Information Sciences , Third Edition* (pp. 2148–2152). <http://doi.org/10.1081/E-ELIS3-120044852>
2. Ghosh, M. (2009). E-theses and Indian academia: A case study of nine ETD digital libraries and formulation of policies for a national service. *International Information and Library Review*. <http://doi.org/10.1016/j.iilr.2008.08.002>
3. Gorman, M. (2001). Human values in a technological age. *Information Technology and Libraries*,

20(1), 4–11. Retrieved from

<http://search.proquest.com/docview/215833237?accountid=14570>
http://sfx.bib.uni-mannheim.de:8080/sfx_local?url_ver=Z39.88-

[2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=unknown&sid=ProQ:ProQ:abiglobal&title=Human+values+in+a+technological+age&title=Human+values+in+a+technological+age](http://search.proquest.com/docview/215833237?accountid=14570&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=unknown&sid=ProQ:ProQ:abiglobal&title=Human+values+in+a+technological+age&title=Human+values+in+a+technological+age)

4. Lebert, M. (2009). A Short History of eBooks. *Gutenberg Project, 10101*, 1–87. Retrieved from <http://www.gutenberg.org/files/29801/29801-pdf.pdf>
5. Mishra, R., Vijaianand, S. K., Noufal, P. P., & Shukla, G. (2007). Challenges and Innovations in Establishing an ETD @ Indian Institute of Technology Kanpur , India Digitization of IITK Theses and Dissertations Scanning Specifications : *In 10th International Symposium on Electronic Theses and Dissertations, Uppsala, Sweden.*, 1–12.
6. Reynolds, D. *Library Automation: Issues and Applications*, Bowker, London, 1985.
7. Reynolds, D. “Library Automation,” *World Encyclopedia of Library and Information Services*, 3rd ed., ALA, Chicago, 1993, p. 470-471. My text adapts the section headings used by Reynolds.
8. Sheeja, N. K. (2011). The Development of an Indian Electronic Theses and Dissertations Repository: An Overview. *Journal of Academic Librarianship*.
<http://doi.org/10.1016/j.acalib.2011.08.011>

About Author

Ms. Alka Rai, Assistant Librarian, Ambedkar University Delhi, Delhi.

Email: alka@aud.ac.in