

## Digital Humanities and Responsibilities of Library Professionals

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### **Abstract**

Emerging research methods have outdated the traditional ones in terms of accuracy and presentability. Use of information technology has laid a great impact on every field of academics. Nowadays even the humanists are using the computational efficacy for performing their tasks. In the very beginning of this new century a new arena of study has emerged, Digital Humanities (DH). As the name may suggest, it is the application of modern information and technology tools to answer the queries of the humanists. Librarians have played a significant role in the evolution of DH. From the earliest days, librarians were eager partners on collaborative digitization projects, and now they can be found negotiating text mining rights with researchers and vendors. The role of the librarians is not merely limited in book management anymore. In fact they are catalyst in promoting digitization projects all over the world and thus they have tied knots to DH as well. Therefore this paper aims to discuss the role of library professionals in facilitating the DH initiatives and products and throw some light on the core competencies of the librarians laid down by the American Library Association (ALA) in this regard.

**Keywords:** Digital Humanities, ALA core competencies, digital publishing, digital pedagogy

### **1. Introduction:**

Since last three decades research on humanities has gained enormous popularity among the scholars. The conventional methods of studying the society have been outdated with the advent of new Information and communication (ICT) tools and techniques. The scholars have applied ICT tools for pursuing their research. The application of digital tools on humanistic sphere of academics has coined the term digital humanities (DH). Thus DH can be described as a result of amalgamation of ICT and social research. DH encompasses all academic activities that are founded upon digital study materials, methods, tools and techniques. Data mining, geographical study, text analysis, encoding of texts, digital text editing, preservation and archiving through digital tools, visual representation of data- all of these can be different

manifestations of DH. To put it in a nutshell, DH symbolizes the use of digital technology to deal with humanistic issues and impression of the humanistic studies over the advancement of digital technology.

## **2. Evolution of DH:**

The concept of DH is the evolved version of humanities computing. In 1946 Roberto Busa first introduced the idea of humanities computing. Busa and his team in association with IBM created a computer generated index to Thomas Aquinas writings. Busa has been regarded as the father of DH henceforth. Thereafter other humanities scholars started to use computers to automate the activities like, word searching, counting and sorting. The use of computers made all the works much faster than manual labor. Subsequently, historians, archaeologists, linguistics scholars and other humanities scholars started to use ICT tools to achieve their required information or produce intended outputs. The association for Literary and Linguistic Computing (ALLC) was founded in 1977. The Association for Computers and Humanities (ACH) was established in 1978. Thereafter the DH scholars felt the need to frame a standard for handling digital texts. In 1987 Text Encoding Initiative (TEI) was launched to prepare a set of standards for digital text editing and the guidelines were published in 1994. The TEI guidelines paved the way for development of Extensible Markup Language (XML) and thus the humanities researchers were enabled to utilize databases and editing digital texts. Afterwards with the advent of internet and other ICT based textual and graphical tools DH scholars gained more scope to research (What are the Digital Humanities? - github pages 2020) (Manabat, 2023).

## **3. Activities of a DH centre:**

Lots of ambiguity was prevailing earlier regarding the location of a DH centre within a university or a research centre. With the rise of multidisciplinary approach towards humanistic issues the location of a DH centre has been isolated from other academic departments and subsequently the academic institutions are now building up DH centers separately. The Council on Library and Information Resources (CLIR) was founded in 1956. CLIR is an independent, nonprofit organization of Alexandria (U.S.A.) that prepares strategies to enhance research, teaching, and learning environments in collaboration with libraries, cultural institutions, and communities of higher learning. CLIR started to study the functioning DH centers in 2007 to know about their source of income, infrastructural setup and services they offer. This study highlighted below mentioned functions for a DH center (Zorich, 2008).

- The DH centre shall try to accumulate digital resources to aid academic activities.
- The DH centre shall encourage the use of digital tools for scholarly publication, evaluate the digital collections and support the research activities.

- Use of new digital methods and tools shall be promoted by the DH centre to enhance the production of new intellectual findings.
- DH centers shall encourage training program for humanistic aspirants through digital mode.
- Different extension activities like lectures, seminars and other academic activities shall be promoted by DH center to discuss various issues related to DH.
- DH centers shall have the facility to appoint their own staff members.
- The DH centers shall support the collaborative activities among the other academic departments of the native institutions.
- The DH centers shall support the collaborative activities among the academic departments functioning outside of their native institutions.
- DH centers shall carry out indigenous research on humanities and application of ICT in humanistic issues.
- DH centers shall act like a space for experiment and discovery for humanistic issues.
- DH centers shall act like a doorway of knowledge for any specific humanities stream.
- DH centers shall act like a repository of digital resources, which are dedicated to humanities.
- Humanities departments will receive technical solutions while handling digital resources through the DH centers.

Although the CLIR study report did not mention the functions of library in promoting DH specifically, but different functions of DH centers as stated above clearly resemble the activities of a digital library. Therefore it may be argued that the activities of a modern library can broadly support the major functions of a DH centers and thus both libraries and DH centers can advance by complementing each other. (Sula, 2013)

#### **4. Role of Libraries in promoting DH:**

Libraries have played a significant role in the origin of DH. The impact of ICT on library activities has opened up new avenues for DH practitioners. As a new area of study DH is still evolving and expanding hence sometimes it may seem confusing to the librarians to streamline their activities to contribute in DH. Therefore some library activities have been mentioned below that may support DH activities (Varner, 2016) (Lingstadt, 2018).

- At present maximum scholars are favoring digital tools for preparing and publishing their intellectual contents in forms of digital editions. In this respect the library professionals can help the DH practitioners by providing scanners to digitize printed or hand written text materials.

Libraries can provide optical character recognition (OCR) software to increase the precise retrieval of the digital content. Moreover the librarians can guide the DH practitioners in digital encoding of the text for better edit-ability and present-ability using XML based web applications.

- Libraries can break the chunk of digital collections to their core components and that is data. These data can be stored in multiple formats. This particular process helps the DH practitioners to find out, download and upload their required data as per their convenience. The fragmented data are easier to analyze, visualize and reframe.
- The amount of digital content is increasing day by day thus the issue of redundancy haunts the scholars while searching for any specific information. Therefore the huge digital space needs to be classified according to their common features, specific prototypes and levels of advancement. This process is sometimes referred to as text mining by some scholars. In this way that a scholar can search a digital contents published by one whole nation in just one attempt with the help of digital text mining tools. Librarians can facilitate the use of text mining tools across various databases by negotiating with the vendors. Library professionals can classify their in house data before uploading the same. The library orientation programs can also include guidance towards text mining to help the DH practitioners.
- Library orientation program or library instruction session is one of the very common activities of the libraries across the globe. Often academic institutes arrange class based library instruction programs, which enables the users to understand the way of searching required data through library collection. Often the library professionals participate in developing assignments with the teachers to encourage library use among the students. The modern ICT tools allow students to carry out deep research and create indigenous outputs which can be published online. The web based apps providing digital time lines, online maps and several other contents management tools enables students to publish and present their thought contents digitally.
- Librarians should act like bridge between the teachers and students. Librarian should try to find out the research interests of the students and the constraints they are facing. Librarians shall be able to expedite good research practices by arranging required documents within and outside their libraries to meet up the academic needs of the researchers. Social networking software and professional associations allow librarians to know the way others are following in incorporating DH activities in library workflow and the subsequent pros and cons.

- By participating in DH activities librarians will be promoting research skills among the students and thus benefiting the society as a whole. The research conducted by the DH practitioners worldwide yield massive amount of digital scholarly contents. These scholarly outputs shall be preserved from technical obsolescence. Library professionals can guide the DH practitioners regarding standards and best practices in preservation of digital contents.
- Libraries are now evaluated on basis of their services instead of their collection size. Libraries need to participate in dissemination of research outputs world-wide efficiently. The librarians shall teach the DH practitioners on how to prepare metadata files for easy access to the uploaded research products. Moreover the libraries should also track the use of these research outputs and convey the research impacts to the DH practitioners to encourage them in their research activities.

Thus one can say that the library professionals should work like a hybrid scholar with clear understanding and knowledge of DH and library and information science. Librarians should also be eager to support DH research and collaborations to other related disciplines, numerous scholars of humanities and the society as a whole.

#### **5. ALA core competences of librarianship (ALACCs):**

The American Library Association has published the final version of core competences of librarianship in January 28, 2023. The ALACCs states the fundamentals of librarianship based on the academic curriculum, professional activities and the advancement in the library and information science stream as a whole. (Ala's core competences of Librarianship - American Library Association 2023)

Library professionals shall abide by the ethics and basic morals of library profession. They should encourage intellectual freedom and judge the significance of their job against their contribution towards the society. Librarians must be familiar with preservation and distribution of information in all formats and their effect upon the libraries. Librarians should know different types of libraries and other agencies from where information can be generated, distributed and preserved. The librarians shall strictly adhere to legal regulations and intellectual property rights while providing library services. Librarians may promote their job activities, users and functions. Moreover they should support seminar, conferences and other outreach activities to establish the importance of libraries in front of society. The librarians must be abreast of different ICT tools for facilitating verbal and written communication.

With the application of ICT the information sources are evolving rapidly. The librarians need to be capable of handling all types of information resources. The information sources have a certain

time limit for effective use, beyond the limit resources shall be preserved and curated in suitable formats. Information resources in newer formats shall be collected and the same shall be made available by the users as per their requirement.

Library users and their requirements are evolving day by day. Therefore librarians should always involve in lifelong learning programs and organize such programs go ensure better service to the advanced user communities. Librarians shall advocate the role of libraries in aiding lifelong learning initiatives. The librarians shall go through existing and upcoming models and principles of learning, techniques to convey instructions, tools for evaluating the outcomes of lifelong learning and they should also try to introduce these knowledge in the learning infrastructure inside their native education.

Librarians should actively collaborate with the people in charge of administration or management of their home institutes to make sure that the libraries can meet the requirements of their users. Library professionals should actively participate in human resource management in their libraries. The library functions and outcomes should be assessed against feedback of the library users. Librarians should maintain collaboration with the administrators, users and consortia. The required leadership quality to plan, begin, continue and end any academic project should be acquired by the librarians. Librarians should communicate actively with their colleagues and users to build a network of information dissemination within and outside their native organization.

Librarians should understand the prevailing concept, systems, development and objectives of organizing recorded knowledge. Library professionals continue to follow the standards related to the process of collection development, cataloging, metadata preparation, indexing and classification to sustain creation and retrieval of recorded knowledge and evaluate the pros and cons of their existing library systems.

Reference service is the bridge between the library users and library resources. Therefore the librarians should promote the process of quick and precise retrieval, need assessment and amalgamation of different information from various sources belonging to different formats. Librarians should personally interact with the library users to know their information need and subsequently guide them.

Librarians should be capable of locating, narrating and combining research outputs within their native institutes or outside. They should be able to present data in different formats, research methods and plan of action, use of different tools of data analysis and practical application of the research outputs. Library professionals should also comprehend the impact of cultural and professional principles on every

stage of a research. Librarians should also be involved in the research agencies and houses of scholarly communications.

Librarians should arrange the library collections, staff members, functions and programs in such a way that users belonging to different social strata can get access to their requirements. Library professionals should apprehend the authority and right of every library user. Librarians should identify those functions and practices that have any kind of discriminating nature towards the library users. They should also continuously train themselves to sustain social justice inside their library infrastructure.

Information centers are now deeply inclined to ICT based tools to retain their basic activities of information gathering, offering and archiving. Library professionals should discover such ICT based applications which may ease and prompt the process information dissemination among users of different levels and locations. Librarians should think over the ethical and cultural constraints upon using these ICT based application before introducing them to their existing library structure. The existing and upcoming technological tools should be evaluated in contrast to their impact upon usage of the library resources.

Some of the above mentioned librarians' competences may be useful in promoting DH as well.

## **6. Prospects of DH:**

The main importance of ICT application on humanities lies in its enormous capacity of processing, storing and retrieving information. The traditional human based information providing setups are rapidly shifting towards the ICT based systems. The supremacy of digital tools over the manual ones has attracted the humanities scholars as well. Digital media can create a new learning environment that will attract users to use the newer library setups (Zhang et al., 2015).

Digital technology also helps the students to collaborate with other fellow researchers and communicate with their guides. The scholars may interact with other scholars and experts regardless of their different geographical locations. Due to the digital attributes of DH the scholars need to work in close proximity with the information scientists and technical personnel. This collaboration brings forth the inter-relationship between humanities, librarians and technical staff members inside an organization. Though this type of collaborative approach should be highly appreciated, but to sustain the collaboration all should carefully manage the rights and privileges of the stakeholders.

DH scholars have built up a network for scholarly communication among themselves. Several associations have been founded, seminars-conferences have been arranged, publications have been produced and researches have been completed on patronage of these dedicated networks of DH. In 2005 Alliance of Digital Humanities Organization (ADHO) was founded with an aim to facilitate

collaborative development of DH across the globe. Humanities, Arts, Science and Technology Alliance and Collaboratory (HASTAC) is another international organization dedicated to the advancement of DH was started in 2002.

### **7. Constraints over DH:**

The DH scholars are using newer research methods and tools for accomplishing their goals, which sometimes get criticized by the traditional humanities experts. Sometimes confrontations can be seen within the DH community regarding use of any new approach or method. Moreover maximum DH scholars are associated with some organizations which have its own research and publication policies. These policies sometimes confront the DH practitioners in pursuing their research (Zhang et al., 2015).

Some of the DH centres operate at local regional, national or international levels, therefore the initiatives to promote DH also get geographically scattered. As a multidisciplinary stream whenever a researcher attempts to study DH the research results may be leaning towards their own basic subjects of humanities (i.e. history, linguistics, etc.) intentionally or unintentionally which hinders the growth of dedicated DH scholarly publications. Moreover due to multidisciplinary attribute of DH the publications related to DH from various allied humanities scholars are not integrated yet. The digital collections are scattered in different academic institutes, libraries, museums and archives.

Sometimes the traditional attitude of the institutes prevents the attached humanities scholars to study and apply DH. DH is highly dependent on the use of digital tools and all institutes may not have such technically sound staff members with them.

### **8. Conclusion:**

The librarians are trying to support the DH practitioners with their collection and services. Many scholars suggest that libraries can be used as a place for promoting DH activities. According to Roberto Busa, “The use of computers is not aimed towards less human effort or for doing things faster with less labor, but for more human work, more mental effort”. Librarians should always try to encourage the use of ICT with more human intellect. Therefore librarians must aim to expand their knowledge and expertise. Librarians should highlight their roles, gain confidence of the DH practitioners and preserve the outputs of DH researches to be a part of the DH movement.

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