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TRANSFORMING THE DIGITAL ENVIRONMENT IN ACADEMIC LIBRARIES

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Abstract:

An evaluation of the contribution of IT utilities to the change in academic library services is given in this article. People, procedure, technology, and vision are all involved in the digital transformation process. In order to enhance operational agility for digital operational excellence and regularly generate new sources of value for university communities, the Digital University continuously leverages digital technology. Because they were among the first to adopt digital technology, academic libraries are skilled in digital curation, preservation, archiving, and more. Consequently, academic libraries are crucial to the increasing digitalization of universities. Libraries ought to serve as central locations for the digital revolution. Through the Learning Commons, a digital education hub, teaching and learning have undergone a transformation.

Keywords: Academic libraries, Digital age, Digital transformation, Information Communication Technology.

Introduction:

Academic libraries are a unique subset within the broader library system, which also includes public, national, and special libraries. An institution's library plays a major role in its capacity to operate. The provision of information to all is made possible in large part by academic libraries. Manuscript libraries have given way to virtual and cloud libraries, a development that librarians and the librarianship profession have witnessed. The labour market and corporate operations saw significant shifts as a result of this revolution. Libraries are changing in three different ways in the technological age. The traditional elements are evolving first. For everything from editing to circulation, libraries now rely on a wide range of applications. Understanding these administrative programmes is the most crucial resource. Second, libraries ought to change the way they offer information services. Libraries need to build the digital databases that users require in order to fulfil their information needs. To find digital content that satisfies user demands, librarians need to become proficient in database construction and data mining techniques. Thirdly, the knowledge society of today is a research-based, competitive society.

A major obstacle facing the library profession is adjusting to a world that is changing quickly and where librarians are expected to perform different tasks than in the past. The information society is transitioning from the industrial to the information age with the growing use of ICT. Professionals in the library industry must modify their approaches and ICT usage. These developments are mostly the result of the technology available at the time.

Librarians always face new issues in terms of staffing and finance because library administration depends on technological advancements and their application. Librarians are able to manage changes well by delegating tasks and organizing staff to continue in the field. The following areas are primarily affected by the changes: content management, financing,

library organisation and business, staffing levels, collection development, and services provided by libraries.

Academic Libraries:

An academic library is one that serves the needs of post-secondary educators in terms of teaching and research for faculty, staff, and students. To assist university staff and student research as well as school curricula. Resources are needed for class readings and student papers in order to enhance teaching. In the information era, an academic library is knowledge research with an abundance of information resources in every format and essential infrastructure for finding and choosing them. Academic libraries have to make decisions on what areas to concentrate their collection growth efforts on, as no single library can house everything. These collections, which sometimes serve as the basis for a special collections section, could contain original essays, artwork, and pieces of writing produced or authored by an only writer or on specific subject.

Digital Transformation in Indian Libraries:

The first stabs at a digital-library were undertaken by Otlet, Paul and Henri, La Fontaine in 1895. They started by methodically classifying all of human knowledge, but as the Internet grew in popularity, digital libraries emerged. Millions of users can concurrently access a digital library's digital collections on the World Wide Web, which is its primary benefit. In India, the establishment of digital libraries has been viewed as a way to preserve artistic legacy and culture from the mid-1990s. In an effort to increase access to the vast array of national resources that are available across the country, India has adopted "UNESCO Universal Declaration on Cultural Diversity, which was broadly endorsed by the organization General Conference at its 31st session on November 2, 2001". The Online-Public-Access-Catalogue (OPAC), an electronic card catalogue created in the 1980s, served as the basis for the initial programmes. Academic, public, and special libraries are increasingly using OPACs to provide traditional card catalogues. Library were capable to encourage resource sharing and provide access to resources beyond the purview of conventional libraries as a result.

List of 10 best digital libraries in India–

I. National Digital Library of India (NDLI)
II. Digital Library of India (DLI)
III. British Library Endangered Archives Programme (BEAP)
IV. Indian Academy of Sciences
V. JSTOR
VI. Project MUSE
VII. Open Library
VIII. Digital Public Library of America (DPLA)
IX. Internet Archive
X. National Repository of Open Educational Resources (NROER)

Transformation in Libraries: Past to Present:

Cuneiform script was used to write the first written documents on clay tablets, some of which date back to 2600 BC and were discovered in Sumerian temple halls. The initial library was made up of these records. The tablets were around an inch thick and came in a variety of sizes and forms. To create writing surfaces, wooden frames were filled with mud-like clay, smoothed, and then cured until moist. The clay was burnt in a kiln for a tougher

finish, or it was left to cure in the sun after writing. The instruments that librarians regularly utilize have seen tremendous modification in recent years. Few libraries are outfitted with the same resources as they were a few years ago. Most libraries today provide an online-public-access-catalog (OPAC), public PCs with CD-ROM drives, scanners, or public terminals with Internet connections in addition to more conventional resources like card catalogs and microfiche readers. An increasing number of libraries are setting up online home pages so that patrons can access a range of services without ever setting foot inside the building.

Traditional libraries are giving way to digital libraries in many cases. Libraries no longer only provide print and electronic information; they now offer full text access to documents. Along with contemporary publications, many historical library holdings are being digitalized (Corbin and Coletti, 1995). Without putting critical documents in danger, these electronic archives enable anybody to verify information at any time, from any location. Print material continues to dominate electronic media despite multiple digitalization endeavours. Our libraries are still overflowing with paper, and this state of affairs is likely to persist for some time to come. For the foreseeable future, paper-based and digital libraries will coexist as electronic publications gradually replace print media. The concept of a library transcends its physical location. Our service has always included access to resources that are available outside of the library. Librarians have collaborated in several ways over the years. Central cataloguing, union lists of journals, collaborative collection construction, and interlibrary lending are a few instances of resource sharing. Working together and providing reciprocal services among libraries enables us to provide our customers with a wider selection of resources and to swiftly, affordably, and efficiently fulfil their information needs.

Libraries' Transformation in a Changing Environment:

In the 21st century, academic library go outside the walls of their specialised institutions to offer online knowledge spaces that compete with social networking, communication technology, and sophisticated Internet sharing tools. Supporting multicultural and multinational university learning communities is a requirement for academic librarians. To guarantee that all international students using the library receive an equally high calibre of service, they should be cognizant of and sensitive to their needs. In an environment where international education is growing fast, academic librarians face new challenges. To meet these challenges, they must invest in skill development and ongoing improvement based on offering efficient, relevant, flexible, interactive, and culturally sensitive library services and programmes.

Online Public Access Catalogue:

Throughout history, one of the most versatile and durable technologies has been the library card catalog. Most libraries employed a shelf list or binding catalog in one way or another. One disadvantage was that books were listed in the order they appeared on the shelves, but Ezra Abbott of Harvard created the first modern card catalog intended for readers. Charles Cutter, a colleague who was named librarian at the Boston Athenaeum in 1868, devised a novel approach. Eventually, the Library of Congress classification scheme was built upon this method.

The whole collection of materials and resources held by a certain library is cataloged in an online database known as the Online-Public-Access-Catalog. With the use of a computer or other electronic device, it can be accessed and operates in a manner similar to a card catalog.

Eventually, online public access catalogs might replace traditional card catalogs, making it simpler for patrons of libraries to locate the resources they require. To locate the data, documents, publications, and other resources they require, users can electronically search the database. The online public access catalog's ease of use and accessibility to all users is one of its unique advantages. This implies that everyone, regardless of age, status, or degree of computer proficiency, can utilize the system.

Technology and Artificial Intelligence:

It is an extremely broad theme that spans numerous academic disciplines, including linguistics, computer science, philosophy, mathematics, cognitive science, and neuroscience. Up until now, the AI community has focused on utilizing computer programs to mimic intelligent behavior. Artificial intelligence includes things like reasoning systems, human-like thinking and behavior systems, and systems that act and think like people. According to Hintze (2016). Artificial-intelligence has been applied to libraries in the form of chat-bots that can answer simple informational questions, alert staff and patrons when a book is due, help with website instructions, and more. Digital technology use has radically altered our world. Academic libraries' digital environments are being shaped by a number of innovative technologies, including big data, block-chain, cloud computing, robotics, the internet of things, and others.

Reasons for Transforming:

ICT and other approaches are being used in libraries to change traditional library operations. While libraries still play a crucial role in society, the way they operate and handle digital content has evolved. The greater participation of publishers in the development of information products like encyclopedias, guides, high level abstraction of information content, and bibliographies, guides, and syntheses is one of the main changes in libraries. Digital technology will greatly broaden the processes for analysis, synthesis, and packaging. Information systems will grow more complex in the digital age, and different search strategies will be active to extract data from data warehouses. Information systems will grow more complex in the digital age, and different search strategies will be employed to extract data from data warehouses. Digital technology will greatly broaden the processes for analysis, synthesis, and packaging. Information systems will grow more complex in the digital age, and different search strategies will be employed to extract data from data warehouses.

- Overabundance and explosive information
- An increase in R&D across all businesses;
- A range of reader wants and needs; budgetary constraints;
- The use of ICT across all fields
- The accessibility of free online and digital resources for information.

Elements of Transformation:

The development of the library system can be attributed mostly to the following developments:

- Computer and communication technology
- RFID, Bar-code, and smart card technology

- Internet Technology And Web
- Library Computerization (Automation)
- Networking of information resources & libraries
- Social networking (such as Twitter, Apps, Skype, Blogs, Wikipedia, Facebook, etc.).

Information needed by users from changing academic libraries:

Academic libraries are regularly purchased by the "General public, instructors, researchers, scientists, managers, technical assistants, administrative staff, engineers, and medical professionals". Users who are looking for records have trouble doing approximate research and propose new records based on data that has already been released. Well-educated library employees enable patrons to access records more successfully and effectively. College and teacher libraries should provide 24-hour access to Wi-Fi-enabled Internet resources. Web journals that companies subscribe to include "ACM Digital Library, ASCE Journals, ASTM Standards and Digital Library, EBSCO Databases, Elsevier Science Direct, Emeralds e Books, IEEE/IEE Electronic Library, and McGraw-Hill Access Engineering". Consult research paper published by academic media by different publishers. In this day and age of globalization and competition, libraries have to subscribe to "online magazines. Inspect, Math-Scinet, Sci-Finder Scholar, Scopus databases, and Web of Science are a few bibliographic databases".

Role of Librarians in Digital Age:

Librarians are in charge of all the tasks discussed above that academic libraries carry out. Thus, academic librarians are required to have a selection of technological competencies in order to serve students. Information literacy is needed for this. Teaching computer skills is included in the competencies we refer to when we talk about teaching information literacy in the digital age. Students have access to a wealth of information these days. They are becoming more and more reliant on technology every day. An academic library is a library located in a school, college, or university.

There are internal libraries at many companies as well. Scholars, instructors, learners, and professionals. In their field, they require the most recent knowledge. Libraries are chosen by library "Users due to the high cost of books, time and space constraints, and the availability of resources. Every organization has a sizable print collection, but because the collection is dispersed, users are unable to access the information". To make the most use of resources, librarians should develop a variety of quick resource search techniques. In the classroom, librarians serve as a liaison between instructors and students. They assist patrons with locating volumes in the stacks, provide guidance in use the library's online catalog to expedite and simplify searches, and assist learners in locating the necessary information.

Conclusion:

The Internet and its associated technologies have become immensely popular,

opening up a whole new channel for users to obtain enhanced information services and resources. In order to offer services and resources that make the most of their abilities in content creation and organization, librarians may need to reposition themselves, exercise creative thinking, and pick up new technology skills in the future. Using the goal of granting everyone access to these libraries, a digital or virtual library uses networks and technology to connect people to materials. Information services and different digital libraries are typically transparently connected. A digital library is an organized system for gathering, arranging,

preserving, and disseminating digital information. In general, they are efficient ways to spread knowledge across the community.

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