Impact of Advance Information Technologies on Professionals Working & Library Science Services

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Abstract

The main objective is to describe the impact of the new information technologies on the development of the curriculum of Library and Information Science professionals. Currently information technology is an integral part of most subjects taught in profession of library. In the last few years thanks to the help of the various software and hardware developing companies has changed the environment of library profession, technically library professional have dynamic change in all services information Science. Library professional have major impact to change the value and system of gaining education, Library professional's level of service is improving scientifically and playing role as information scientist to create quality education and research.

Introduction

The technology revolution has brought many changes to the way librarians and library staff their day and provide information to users. Up until ten years ago, libraries were book focused institutions. There were just print card catalogs; online vendor databases had barely become tools in the librarian's arsenal to answer questions; the Internet as we know it now was still years away from practical use. Library acquisitions, cataloging and circulation were done via paper or managed by using print ledgers, pens and card pockets. Spreadsheets, internal databases or other productivity software was never used to manage library data.

The first major wave of change came with the advent of digital storage technology and networks to move information from one area to another.

- In the early 1990's, Public access terminals and new online public access catalogs became ubiquitous in libraries to share information regarding library holdings and for the management of library acquisitions. These first generation library systems were hard wired LANs running PC based software. Access to holdings to the outside world was not widely shared. Dial-in access

was limited to large institutions. Modem speeds at this time were no faster than 28.8kps

- CD-ROMs were introduced for the most part as a storage and research tool in libraries during the mid-1990. These CDs held large amounts of data which were inserted into single use PCs; or were kept in CD towers for small LANs of up to six PCs to access information simultaneously.

- In the late 1990's, the Internet became the life blood of information sharing not just for libraries, but for commerce, education, government and the general public. High-speed networking availably created an efficient and fast way to move both text and graphics from one server to another in a matter of nanoseconds. The Internet is the most democratic, yet confusing information tool ever devised. On one hand, storage and access issues are eliminated, yet since anyone can place anything they want on the World Wide Web, users frequently find erroneous or false information and use it as "fact". There are now three billion websites on the Internet and that number continues to grow. While the Internet is a wonderful thing, it is not a substitute for the campus library, or more importantly, the librarian. Librarian's guide and teach students and other users how to find the best sources of information, whether print or online. In fact, most of the world's knowledge before 1970 does not appear on the Web in any organized or holistic fashion.

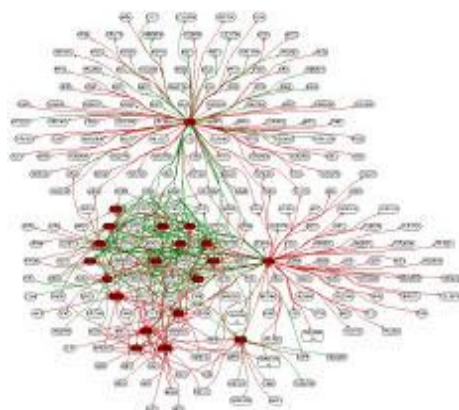- Current years technology became atoms of information and fusing like $2+2=4+4=8+8=16<$

Figure 1: Library Information Technology fusion.

- The role of the academic librarian in the information age is to promote access to appropriate and accurate information to serve the needs of users. This has been the librarian's mission for generations. However, the information age has made this mission much more challenging and complex. It has also demanded that librarians and library support staff bring or develop new technical skills to promote information access.

- Libraries are in the retail end of the information revolution. It is important to note that even with all the technical complexity and more responsibilities, a

librarian's core role as gatekeeper to information is unchanged. We still select books and pint periodical titles, we still teach users one-on-one and in classroom settings how to do research; we still answer questions from students and other users. Except we now answer questions via phone, fax, and email as well as in-person. Through technology, we select, manage and maintain complex computer and web-based information systems and we teach via distance by creating on-line tutorials.

- The card catalog which was replaced in the early 1990s has itself been replaced with a Web-based interface. This means that the maintenance of the information, typically handled by library support staff, has to be accurate and the level of sophistication and technical expertise to handle the amount of information added to the library's own knowledge base increases yearly as the capacity to store and access information has increased. Also important to note, the online catalog is accessible from anywhere as it is a web-based catalog.

Modern Library in Changing Dimensions of IT

A Model library would provide the following services to its users regardless of their geographical location.

- Circulation of books, photocopying of articles etc.
- Online/Off-line reservation
- User services such as membership, query
- Database Searches
- Interlibrary loans
- Reference support for subject searches
- Assistance in using computer facilities
- A Liaison librarian
- User education and training programmers
- Access to library catalogues, database, internet
- Current awareness service
- List of new publications received
- Flexible methods of submitting requests, e.g., via telephone, facsimile, email, WWW, post
- Electronic reference desk

Librarians

Librarians are the ultimate search engines. Their level of technological expertise extends past the simple reference interview and selection of materials for the collections. Librarians interface with faculty to design and teach their students appropriate research skills; they manage and select digital collections and services; they serve on a variety of committees Librarians are the glue that binds successful, efficient and excellent library services to the readers that require library information resources. Librarian in the age of technology is called information engineer because

Librarians are using scientific power for tracing information. The librarian staff care deeply about how they are perceived by all our customers and handle their complex responsibilities with the utmost compassion, professionalism, technical ability.

Library Assistant Supervisors

The Library Assistant Supervisors are key team of any information centre and responsible for ensuring effective service-oriented management of the daily operations and long term planning of the Circulation, Reserve and Periodical service areas of the library as well as stack management and the adding and removal of reserve materials. The Technical Services Library Assistant Supervisor Position is responsible for the acquisition of all print, non-print and electronic information, on-line assets distribution of collection development funds, acquiring, distributing and dispensing of library assets.

Library Assistants

The Library Assistant staff has dynamic relation with information technology and is responsible for ensuring effective service-orientated customer support in the daily operations in Circulation, Reserve and periodical service areas of the library as well as stack management and the accession and removal of reserve materials. These positions provide library circulation desk services to students, staff, faculty and the public in a highly customer service orientated environment. Duties include but are not limited to circulating library materials in all formats, creating patron records, clearing fines, maintenance and use of the reserve collection and processing.

Library Technical Assistants (LTA's)

This position provides high-end technical and instructional support of library Information technology resources and other related equipment to students and other library patrons. Position requires a working knowledge of LANs, WANs, on-line database, on-line account openings-resource sharing, digital information generation processing as well as IT related tasks such as programming, inserting and changing computer hardware, installing and monitoring software used in maintaining connectivity to an array of online databases, the Internet, , the library's online catalog. Position requires working knowledge of FTP, UNIX, Windows and functional use of web programming languages, such as HTLM and JavaScript. Position provides for the physical maintenance of IT technology and equipment, the maintenance of photocopiers and printers, all library AV equipment as well as the maintenance of the computers used in the instruction classrooms located at each campus library. Position also requires incumbent to work with all library staff to ensure access to information technology remains working and reports any and all downtime to IT management for support. Troubleshoots and takes direction from IT technicians when appropriate.
Effect of Technology on Information Digitization:

Information is now seen as a vital resource in all sectors of human activity, political economical, administrative and cultural and scientific management It's

management (creation, collection, storage, processing and dissemination), has for some years -undergoing real revolution by the pressure of new technologies. Increasingly, more and more scientific and technical documents are digitized or machine-readable. The main concern of information scientist is overwhelming nature technology an emergency vehicle communication) – in effect of methods of treatment and representation of texts. The notion that we are living through times of great change in the technical communication of information and the transmission of rights texts is a reality- which will bring a puzzled look to most professionals with any kind of involvement in the area of IT. Perhaps this helps to explain why the Information scientist community as a whole seems to be in such a rudderless state regarding the creation of digital content; no shortage of action, but no overall sense of direction

Effect of Technological Advancement in Digitization

The digital age, , the electronic age ,the information age – we have all heard these terms so many times and have sat through innumerable discussions, and seen even more documents, trying to sort out what it all means. There are almost as many views on the likely pace of change and the shape of the landscape 10 or 20 years from now; in fact factors of changes in documentary information system are most affected by research in computational linguistics and artificial intelligence (mostly reflected in indexing, querying in natural language, generation of concise answers and knowledge representation).

Here are snapshots of some developments on this sector in brief:

- The technical input by scanner can digitize the data contained in paper and microform.
- Office automation and electronic publishing increasing computer readable documents.
- The input software provides more precise representations by minimizing the error factor.
- The optical and magnetic media are more compact than paper-based options and can be accessed and consulted more easily.
- Tele-informatics & other communication technologies (remote inquiry of databases, electronic mail, and video-text) makes information available without interruption and displacement.
- The optical and magnetic media are more compact and- (Querying remote databases, electronic mail, and video-text) makes available information without interruption and displacement.
- On-line resource operation are impacted strongly and helped dynamically if information searches.

Many numbers of examples of technological improvement in this aspect can be provided. Actually, we now deal with- information processing based on new theories based on parallel machines and neural systems.

All these factors helping the electronic documentation systems to be more dynamic and diversified its contents. The bibliographic databases produced by the

secondary services, archives, libraries and documentation centers continue to multiply and specialized to try to respond to new areas of activity and research. . But their growth is now lower than the databases in full text. They contain all kinds of documents: administrative (policies, procedures, directives, memos, correspondence, minutes), legal (laws, regulations, court cases, appeal cases), technical (hardware maintenance), lexical, terminological and encyclopedic literary works, journal articles, newspaper articles, newsletters, news releases, research reports, etc.. This documentation includes not only text but also graphics, images, digital mixing, and even sounds.

In businesses, governments and even in the cultural sectors- new management techniques emerging regularly to develop these various information, motivated by the quest for productivity and profitability. To counter competition, technological methods are developed that make extensive use of databases for monitoring the scientific, economic and technical data or information. But delay in accessing the relevant data within the systems is a drawback in this area. It is therefore important to develop reliable procedures for processing, tracking and automatic synthesis of information; although Strategic information, which serves to support the decision, is indeed nothing other than the reorganization of existing data based on a particular objective. However, booming technological development in this sector will cover this sector will cover this in near future.

Digital Technology Obsolescence

Another challenge is the issue of long-term access to data. Digital technology is developing quickly and retrieval and playback technologies can become obsolete in a matter of years. When faster, more capable and less expensive storage and processing devices are developed, older versions may be quickly replaced. When software or decoding technology is abandoned, or a hardware device is no longer in production, records created with such technologies are at great risk of loss, simply because they are no longer accessible. This process is known as digital obsolescence.

This challenge is exacerbated by a lack of established standards, protocols and proven methods for preserving digital information. To overcome this limitation following four-points can be considered by the information professionals on a strategic perspective for the long-term preservation of digital objects, these are:

Assessing the risks for loss of content posed by technology variables such as commonly used proprietary file formats and software applications.

- Evaluating the digital content objects to determine what type and degree of format conversion or other preservation actions should be applied.
- Determining the appropriate metadata needed for each object type and how it is associated with the objects.
- Providing access to the content.

Conclusion

IT: At the same time, we know that there is huge potential in coordinating activity between libraries and Information technology. The library and information science sector has a strong track record in taking this approach, but we can do much more – and now is the time to use this into right place and make better use of IT in the professionalism, Librarianship and create new place in Library Information Science as Information Scientists.

If you're standing still, change looks fast. If you go with the flow, it will seem effortless. Libraries remain thrilling places and the future of the library is bright. Libraries will continue to evolve but remain true to connecting knowledge-seekers with the accumulated knowledge of the past for the advancement of individuals and society.

"The librarian of the future will not come from the librarian of the present. The librarian of the future will be a revolutionary change of Library working techniques and scientific need of research"

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