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E-RESOURCES MANAGEMENT AND CHALLENGES IN 21st CENTURY

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Abstract :

This article explains the current scenario of information communication technology (ICT) applications in library and information science field. The changes occurring due to ICT in the library environment, wherein the professionals are changing the acquisition methods of collection to access mechanism and the services provided in normal environment to electronic environment. The different type of collections (e-resources) and the management of those in the life cycle are discussed in this article. The advantages and disadvantages of e-resources are mentioned with the role of library professionals in the 21st century, as per the changing scenario. The challenges of the future for implementing different types of information services are explained in detail along with the conclusion as a challenge to the LIS profession.

KEYWORDS :

ICT applications, e-resources, life cycle, information services.

INTRODUCTION:

Libraries are changing as per the information communication and technology (ICT) applications, while facing the radical changes that technology brings to the modes of information delivery, are also embracing the potential of the worldwide web and new media technologies to extend and improve library services. Many librarians are
enthusiastic about using evolving technology to teach students research skills, address the information needs of distance education students, as well as enrich traditional classroom teaching. On the other hand, attention is also given to the ways of implementing available technologies for teaching information skills (Bracke and Dickstein, 2002). Library and information professionals have been talking about the potential of the information revolution as the way in which all kinds of organizations consider their information and library services. This paper examines the e-resources and their management in the 21st century.

ICT Applications

The rapid emergence of the Internet and way in which it has captured the popular imagination have led to a new and widespread appreciation of the issues and problems of information management. The public and private management, have become aware of the problems of access to a world-wide fund of information, through its sheer size, the difficulty of navigating it, and the conflicts of information within it. Resources of the libraries have grown from physical objects to virtual objects, from card catalogues to online public access catalogues (OPACs), and cooperative cataloguing to social cataloguing with an ability to comment, review and reuse with the application of Web 2.0 techniques, which has prompted openness in the library community. Innovative processes allow library professionals to refine, use and simultaneously provide a more user friendly interface making research and academic processes much easier and simpler (Marliese et al., 2010).
Libraries provide the following services in normal environment like: Reference service, Circulation, OPAC, CAS, SDI, Table of contents, Document delivery service, Inter library loan, Reservation facility, CD-ROM search facility and photocopy service. There are the challenges posed by advances in the field of information and communication technology. The remarkable growth of electronic information in the last few decades has changed the scenario and has solved the problem

of space, as they are available on CDs, audio cassettes, video cassettes etc., as well as on the internet. Electronic resources play a vital role in the field of science and engineering studies. Electronic access to technology journals has become important and valuable tool for researchers, students and faculty. The user community is becoming more and more familiar with these tools and now they have started using them very regularly (Choy, 2011).

E-RESOURCES AND TYPES

Electronic resources are regarded as the mines of information that are explored through ICT devices, refined and redesigned and more often stored in the cyber space in the most concrete and compact form and can be accessed simultaneously from infinite points by a great number of audience. Moreover, e-resources refer to that kind of documents in digital formats which are made available to library users through a computer based information retrieval system. The Internet is said to be the right and most extensively used channel to catch hold of the majority of e-resources through different search engines (e.g. Google, AltaVista, MSN, Yahoo, etc.) and WebOPAC and, of course, some offline databases in CD/DVD formats that can even be accessed without the help of internet. Therefore, it is perceptible that e-resources include online databases, sources from web pages, e-journal articles, electronic personal papers, e-mail messages, newsgroup postings, newsletters, government publications, e-theses and dissertations, e-newspapers, CDs/DVDs, e-books, e-databases, HTML links, digital library materials, institutional repositories, social networks, open access materials, etc.

Due to ICT development and applications, the contents are made available in e-formats now-a-days mostly. Therefore there are different variety of e-resources are available for library professionals to select, access, organize for retrieval and make them aware and use of the resources by the users. The different types of e-resources are like

e-books,
e-journals,
e-theses /dissertations,
e-conference proceedings,
e-standards,
e-patents,
online databases,
publishers' websites,
web links,
subject directories,
subject portals and
open access resources etc.

MANAGEMENT OF E-RESOURCES

A system that supports the management of the information and workflow necessary to efficiently select, evaluate, acquire, maintain and provide informed access to e-resources in accordance with the business systems and license terms. (Anderson et al., 2004)

The e-resource life cycle

The challenges faced by the librarians have to be examined in the management of e-resources due to the large volume of e-resources, for which Electronic Resource Management (ERM) has become necessary. The following Figure 1 presents five basic phases of the e-resource life cycle.
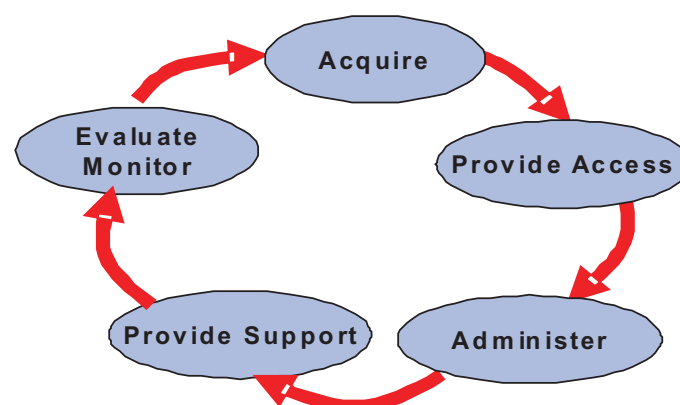

Figure 1: E-resource life cycle

Each stage of the e-resource life cycle presents unique challenges for library staff.

Acquire

To acquire an e-resource often involves arranging trials, reviewing and negotiating a license agreement and understanding and agreeing to complex pricing models.

Provide Access

Unlike print where providing access involved cataloguing the resource and putting it on the shelf, providing access to e-resources can be much more complex. Content usually is not stored at the library; therefore, much work goes into managing links to the content, helping end users discover the content through A-to-Z lists, link resolvers or the library catalog as well as managing the authentication to ensure that authorized patrons can actually get to the content. This may be done by registering IP addresses with the publisher or through campus authentication and proxy servers.

Administer

Most e-resources are hosted on a site other than the library's Web site and these sites have administrative modules. One challenge is simply keeping track of where these administrative modules located and how to log into them. It is also a good idea to keep track of the settings that were made for each site along with the reasons why those setting were established. Some sites require the library to update its holdings information to ensure accurate linking. For full-text resources, library staff often answers questions relating to the rights to use articles for interlibrary loan, electronic reserves, etc. This information is normally found in the signed license agreement or the terms and conditions pages on the content hosting site.

Provide Support

Access to e-resource may be interrupted for many different reasons. One challenge for the library is to determine what the problem is (Is the site down? Is there a problem with the campus proxy? Is there a problem with the subscription?) as well as how to fix it (who to call).

Evaluation

When considering whether or not an e-resource is providing value, the library would likely view any problem logs, obtain usage statistics and acquire input from faculty, staff and end users.

Advantages of e-resources

Accessible – can be accessed from any computer on campus and usually any computer off campus, any time of the day or night, so there is no need to make a trip to the library
Easily searchable - each journal can be searched quick and easy often through the complete full text of articles and via online index
Speed - Articles/issues appear online before printed version is available
Interactive - Rapid turnaround time means articles can be read, commented by the readers, amended quickly and greater feedback thru the web
Links - Hypertext format should be exploited and links to related articles, information on other web sites, stable URLs for individual articles and email alerts when latest issue loaded.
Added Value - Advantages taken on the web is to add value by using animation, virtual reality and interactive mathematical charts.
Inexpensive - savings can be made over printing costs, distribution costs and extra costs by new features.
Flexibility - E-journals evolved quickly. They are not tied to a format, printer, and distribution network

DISADVANTAGES OF E-RESOURCES

Difficulty reading computer screens:
limitations of computer monitor
read information in the screen
Often not included in indexing and abstracting services
Search engines ignores PDF files
Format that a large proportion of e-journal use

CHALLENGES FOR LIBRARIANS

Klobas (1999) discussed electronic opportunities for users and librarians in networked information resources environment. In the knowledge dissemination context, librarians' roles will become more prominent as educators, information managers, information management consultants, custodians of information, information providers and

publishers, change agents and custodians of public library facilities:

As educators, librarians can increase awareness among their clients of information networks, their contents and potential use. They can help clients who are new to electronic networks, and those who have poor interpersonal networks, to locate sources of information on the network.

As information managers, librarians need access to information resources of many types, in many disciplines. They have the skills to build navigation tools for networked resources in the same way that develop navigation tools for disseminating the published information in library catalogues and national bibliographies.

As information management consultants, librarians can help network users build and maintain personal information systems, which provide access to the subset of networked information sources relevant to each user's work.

As custodians of information, librarians are facing apparent challenge to their role, as physical resources migrate into electronic form and on-demand electronic delivery becomes more common. The ephemeral nature of much e-materials (such as newsgroups) does, however create a need to identify and where appropriate, archive authoritative versions of e-information.

As information providers, librarians can make available much more widely collections which now can be sued only within a single physical library location. A wide range of publications and access formats can be accommodated, from remote log-in catalogues and indexes, to provision of e-copies of entire collection in print or other formats.

As custodians of library facilities, librarians can provide and disseminate through the workstations, network gateways, printers and software that may not be otherwise available to the public.

CHALLENGES OF THE FUTURE

For implementing the different types of information services, changing the strategy and addressing the current issues to respond to the evolving needs of society in the twenty-first century, the following are necessary:

Increase opportunities for lifelong learning by expanding distance learning programs and services over the Web and by making them more rich and dynamic.

Provide for student-centered learning by allowing students to manage their academic lives over the Web and by making it possible to tailor the educational experience to each student's skills, goals, and learning styles.

Deepen and enrich relationships with constituents by reaching more people in new and compelling ways.

Enhance learning through next-generation communication and research tools, simulations, and other electronic learning experiences.

Increase efficiency and productivity by providing faculty and staff with instant access to the information, tools, and resources they need to do their jobs.

Deliver better service to constituents by providing them with quick and easy access to University resources and services over the Web.

Increase the library's outreach to diverse populations by providing new communications and electronic community outreach tools.

Provide collaborative learning environments in global equity, health, environment, technology, and citizenship.

Enhance the discovery, access, and dissemination of new knowledge by providing a variety of powerful tools for accessing information resources, communicating, visualizing and analyzing data, creating simulations, and conducting virtual experiments.

Proactive services. Library users are already using tools such as blogs, wikis, RSS feeds, podcasts (in Apple iTunes), videos (in YouTube), photo sharing on Flickr, instant messaging via Meebo and Twitter. LIS professionals should try to follow them and support for all these.

Improved communications (internal and external). Social networking tools not only improve a library's communication with its users but they also improve internal communication and knowledge sharing.

Immediate implementation. Putting content on the Web is no longer the exclusive right for experts with knowledge of HTML and web programming languages, anyone can add online content. All you need is access to a computer.

Survival. Librarians must get on board the Web 2.0 wave. If they hesitate, other rival information services will do the job for them.

CONCLUSION

The new trends in the automation spawned by recent web development are causing libraries to be more reliant on software and computing resources provided by outside companies in service delivery to users. This indicates that libraries are operating under a new mode of library automation than existed at the turn of the 21st century. The introduction of ICT to the libraries has helped greatly to overcome routine and repetitive tasks, and has offered new and innovative modes of learning and multiple modes of interaction and has offered teachers opportunities to spend more time on the creation of lessons in a new and challenging way. A number of new applications have added a new dimension to information dissemination and have made searching for and retrieving of information much simpler and easier. Periodic updating of users' awareness of the new services is essential to invest further time and energy on such services.

The transition from the stationary to the mobile Internet is more than a technology change regarding the use of digital information. It basically represents the transition to the omnipresent Internet, penetrating all areas of life, the "all-pervasive Internet", which is fully integrated in our daily lives and social routines. The goal as librarians is to get users to

think that their success in learning and the development of their knowledge is dependent on libraries too. This goal is getting increasingly difficult each day in the internet economy that is characterized chiefly by an abundance of choices and alternatives. It is good enough for us to build good systems provide great resources and offer innovative services. Lateral-thinking and innovative library and information professionals have opportunities to demonstrate their value by developing these new skills, and entering new kinds of work such as knowledge management.

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