EXPERT STAFF FOR DIGITAL RESOURCE MANAGEMENT : AN ANALYTICAL VIEW

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Abstract

Information Communication Technologies (ICT) are undergoing rapid changes. Librarian needs to redesign the structure of their library to meet the changing needs by learning and implementing new practices and technologies. How does one provide excellent library service through digital technologies? What are the expectations of digital library patrons? How do we make library patrons satisfied in this digital era? What are the skills librarians need to possess? These questions are addressed in this articles. The digital librarian acts as guardian of the information superhighway and acts as a symbiotic human-machine guru. Article also highlights the roles and functions of a digital library information retrieval, navigation and browsing. This paper outlines professional skills and technological competencies for the development of library professional staff in order to meet the current and future need of users as well as to survive in a rapidly changing technological environment.

Keywords : Digital library, ICT

1. Introduction

Since the early 1990s the need for change in skills requirements for librarians has become evident as a number of factors have impinged on the operation of libraries, not least budget cuts and the rise of the Internet. The Internet and direct access to information by individuals has brought into question the nature and role of libraries and information professionals as we reach the end of the twentieth century. The physical place of the library will become supplemented (some would argue superceded) by direct access from a desktop.

Management, communication and I.T. skills are now just as essential for all levels of the library and information seekers as the "traditional" core units which were taught in most library and information school up to the late 1980's. An interesting approach to this problem of roles in the provision of information is reflected by Matson and Bonski's (1997) overview of the role of libraries in the digital era. Historically it is clear the two professions of IT specialists and librarians, have a very different working style. While the traditional librarian allegedly seeks stability/perfect standards with scant regard for time, the IT specialist's approach emphasises speed and efficiency. We need to marry efficiency and flexibility with risk taking and vision.

Their dialogue concludes that the two professions need to work together until a new profession, a fusion of the two, has been arrived at. A symptom of the lack of clarity as to what a librarian will turn into is the variety of alternative terms used to describe the 'new' librarian who will service the information society via the new gateways to knowledge. Others would argue that the library profession will have more to do with the software knowledge designer then the hard line technocrats of network infrastructure.

2. Digital Library: Definition

Digital libraries carry the missions, techniques and culture of physical libraries with the capabilities and cultures of computing and telecommunication, according to Marchionini, Chowdhury and Chowdhury reported that the Digital Library Federation (DLF) defines digital libraries as follows:

Digital libraries are organization that provide the resources, including the specialized staff , to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities.

Mention of the specialized staff indicates that the success of digital library projects depends on the quality of the specialized staff (the people aspect). The difficulties of assessing the people aspect of digital libraries arise from the complexity of the process involved in building and maintaining a digital library.

3. Objective of the Study

The major objective of the study in general is to:

1. Explain the challenges for the Information Professional in digital era.
2. Identify the skills and competencies of LIS professionals.
3. Explore the responsibility and role of Information Professionals in digital library.
4. To develop organization development through user oriented staff development.

4. Major Challenges for Librarian

In a fast changing ICT, the methods of storing, organizing and dissemination of information have shifted from traditional to digital information. This shifting leads to variety of challenges for librarians. The major changes are:

* Exploration of Information and Knowledge;
* Revolution of Information and Communication technology;
* Proliferation in use of Web-resources;
* Growing demand for digital resources;

* Changing pattern of scholarly publication;
* Shifting from paper based to e-media.

5. Need for a Digital Librarian in the Digital Information System Management

It is due to information explosion almost in every fields of '**Knowledge**', libraries are facing manpower and monetary constraints to provide precise and timely information from every document under the root (Patel & Sharma , 2003: 31). Digital librarian are required to:

I   Organize digital information and knowledge.

II.   Provide digital reference services and e-information services.

III.   Provide universal access and retrieval of digital knowledge.

IV.   Catalogue and classify of digital documents

6. Role of Digital Librarian in Digital Resource Management

* Provide access to a large collection; capture, store and manipulate information. For that reason libraries will need to upgrade architectures to accommodate digital materials (i.e. high speed local networks and fast connection to the internet; full text search engines , FTP Servers etc.)

* Building digital resources (i.e. e-journal , full-text , CD-ROM databases , books etc.) for access , preservation and managing good qualities of information.

   Digitization is the process of building digital collection. It refers to the conversion of an item from one format into electronic format.

* Provide preservation of digitize documents. Digital preservation means the planning, resource allocation and technologies necessary to ensure accessibility , usability , durability of information contained there in.

* Provide retrospective search services to the user.

* Improve cost-effectiveness of library services.

7. Skills for Digital Librarian

Digital revolution has altered our life. Remarkable advances in computer and telecommunication and the advent of Internet have changed the entire information scenario . This rapidly changing condition demands extremely efficient librarians. The skills of Digital Librarian which are to be greatly developed are:

[A] Management Skills:

(i) Conceptual Skills – The mental abilities needed to analyse and interpret the information received from various sources and take complex decisions are the called the conceptual skills. It include the capacity to analyse and synchronize.

(ii) Administrative Skills – Abilities to follow policies and procedures , process all work speedily and minimize the expenditure.

(iii) Human Relationship Skills - It is the ability to interact effectively with the user , and to build team work at all levels. He has to keep pleasant relation with the customers (user).

[B] Communication And IT Skills: In digital era, a library professional should acquire following technical knowledge:

* Operating Systems – Windows, UNIX , LINUX .
* Word Processing, Graphics, Spreadsheet and Presentation.
* Bibliographic Database Management Systems.
* Programming Skills – C, C++, Java, VB, Scripting Languages.
* Web Page Development by HTML, ASP, PHP etc.
* Information Retrieval Software for Online CD-ROM and Internet.
* Software Development and Support Environments – Oracle, MySQL, SQL Server.
* Content Management
* Networking

Scanning technology - Scanners-Scanning /OCR- saving in several file formats OCR software - Omni page- Textbridge-Fine Reader
Acrobat – Reader – Writer- conversion to PDF files Digital Camera – capturing and storing
Building a Digital Library Projects

[C] Information Skills:

Information professional must have the following information skills:
* Skills of information collection, structuring , retrieval and filtering.
* User studies and user education related skills.
* Skills of digital information and reference service.

[D] Presentation Skills:

* Skills to cultivate reading habits among all levels of users;
* Present information to user as per their needs;

* Convey information to users using varied presentation technique.

[E] Measurement Skills :

* Techniques of evaluating the quality of information;
* Regular and periodic analysis and assessment of user needs;
* Design new resources and services by evaluating the result of present use.

[F] Search and Dissemination Skills :

* Sound knowledge about tools and techniques, strategies, engines related to search;
* Expertise in searching database, Web resources and catalogues.

8. Analytical Comments

Digital Library Federation needs specialized staffs for digital library projects. The staff should have good library skills as well as IT skills and the staff should possess excellent customer service skills to be communicated to the patrons via the Web. A librarian may also possess plenty of IT skills but lack of human oriented customer service skills.

Such specialized staff differs from those in the traditional physical library setting because in a digital library setting they are also acquired to have expertise in the digitization process, which includes Computer Skills and telecommunication skills. At the same time, they must understand what makes information retrieval via the internet and more precise with less correction or correctivity problems. They should be capable of predicting and providing a quick response to any technical difficulties that may result in the loss of valuable information and at the same time they should be able to keep track of the number of Web Page visits, number of information downloads and feedback by customers.

It is more difficult to predict information needs in this digital era. It is not easy for librarians to meet and exceed customer expectations with regard to information retrieval because information needs vary according to the customer's level of education. The main problem is the intangibility of service. Different people may have different perceptions, expectations and preferences. However, when it comes to library services, they might have one thing in common: the library should be able to provide the information that the patrons need. It does not matter whether the information need is met via the Internet or via ILL. The patrons must get the information they are looking for at minimum cost (to them) and within the shortest possible time.

The existence of a digital library can merely be considered a value-adds library service if the digital library content is too basic (i.e. too simple or too little) ; and hence the patrons still need to go to the library physically to meet their information needs. In contrast, a digital library service can become

the main library service to the public if all the information is made available and accessible via the Web with extensive hyperlinks to important and pertinent or relevant sites.

The second problem regarding providing better digital library service is the level of library user demand. The demand for a digital library depends on the availability of a telephone connection , the type of Internet connection and the availability of computers.

The motivation to provide excellent digital library service largely depends on the degree of librarian and user involvement. The digital library project must have strong support from all levels of library management. Substantial budgetary resources must be put and adequate training must be conducted or carried out to ensure the smooth running of the project. Users can play their role by providing continuous feedback and suggestions, and can indirectly promote the digital library Website as well.

9. Recommendation & Suggestion

(1) The more the staff understands customer preferences the more a refined segmentation can be achieved. He must try to offer different information access and delivery mechanism, such as Networked CD-ROMs, Video Conferencing and downloading via the Web, etc, to the customers.

(2) To ensure that the library catalogue is readily and easily accessible via the Web (not just via the Intranet). To provide more and more value-added services , such as the renewal of borrowed materials , reservation of books ; etc automatically delivering overdue / fine notices , delivering a lost of newly added materials (books , print / electronic journals, databases etc.) directly to patrons e-mail.

(3) To deliver the right message to the right customer at the right time in the most courteous and professional manner. To build strong customer relations by knowing their details and preferences.

(4) Librarians and staff must be receptive to feedback and suggestions from customers. They should use Newsgroups and Online- Forums to discuss and consult customers.

(5) Librarians should also continuously review and improve the Digitial Library System.

(6) Last, but not least, it should be remember the digital library technology is there to assist human librarian not to totally replace them or render them useless.

10. Conclusion

The staff of the digital library will have to be flexible, project based, aware and that the scholarly communication environment is intrinsically unstable, if dynamic and demanding. Qualified library staff coupled with excellent customer service will boost the overall customer satisfaction and

confidence in using the digital library. It will make a core contribution towards a higher level of digital library usage among the communities.

End Notes :

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