



ISSUES AND CHALLENGES FOR DIGITAL RESOURCES

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Abstract

Digitization of resources is need of the day. In various means like space saving, for distance learning, to keep archive and manuscripts to make available to users. Digitization is a process where proper infrastructure is required and many prerequisite has to be fulfilled. In this paper, issues and challenges during digitization and after have been discussed.

Keywords: *Digitization, digital resources, issues, challenges, Preservation*



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Introduction

The Information Technology (IT) has almost converted the whole world into a global village. The revolution in the IT sector is influencing the information industry to its peak. If one considers that the information is for use and for all who seek for information. considering this view a large number of organization in the USA and Europe have already more or less switched over to digital mode i.e. they are making the digitized images of information which is not available in electronic format and their after no new procurement are being made on print media. Example of such organization is University of Micrographic Inc (UMI), USA, National Institute of Scientific and Technical Information (INIST), France etc.

A twenty first century library if not fully digitized it has at least one section devoted to access the growing collection of computer readable materials, the subscribed bibliographic and full text databases, E-Journals etc for the end user. Along with the access of the subscribed databases it also provides the Internet browsing and searching, E-Mail, Chat and Video Conferencing facilities to the user. The downloaded articles can be printed as per the request.

Digital resources are nothing but a large database of organized collection of multimedia, data that are globally available directly or indirectly across a network and eventually act as a portal site providing access to digital collections held elsewhere for the people who are working on hypertext environment.

Major issues with digitization are as follows:

1. **Copyright:** conversion violates the copy right law because the thought content of one author are often freely transfer by alternative without his acknowledgement. One difficulty to overcome for digital libraries is the way to distribute information. How does a digital library distribute information at will while protecting the copyright of the author? If the information is freely available any one can copy the information without giving any monetary advantage to the author who has put a large amount of time and effort in writing the book, article or any other material.
2. **Speed of Access:** As more and more computer connect to the internet for digital access its speed of access may reasonably decrease. But with the ever improving technology such part has not come till now. There may have been DDoS (where multiple compromised systems are used to target a single system causing a DoS attack) attack which is due to large number of people connecting to the website at the same time. But they have become less prevalent now with improvement in technologies.
3. **Initial Cost is High:** The infrastructure cost of digital library i.e. the cost of hardware, software, leasing communication circuit is generally very high which can easily run into lacs even for a small project.
4. **Bandwidth:** Digital library will need high bandwidth for transfer of multimedia resources so it requires a high speed internet at both user and the library end both.

Content: at the start e-resources got to be reviewed and evaluated for choice from a content perspective against the some policies, guidelines and criteria that apply to print resources. Typically such criteria might state that the resource should

- Support the main research aims and goals of the organization.
- Complement or add depth or breadth to the existing collection supported by subject profiles.
- Be of a certain quality, e.g., peer reviewed, or have a reputable producer.
- Support the requirements of the audience.
- Generate an acceptable level of use.

Technical requirements: E-resources also present a number of technical issues that need to be considered to ensure resources are compatible with existing library hardware and software and that the library has the capability to provide and effectively maintain access to resources

on an ongoing and cost effective basis. Analysis ought to be in consultation with the suitable technical employees and may embody thought of the following:

Method of access: What methods of access are available (e.g., stand-alone, remote via Web, local Web mount or hosting)? Access to remote hosts via net is commonly desirable as a result of it provides further advantages like quicker change, optimum access, reduced burden in terms of storage, preservation and maintenance.

Authentication: What methods of authentication are available (e.g., IP filtering, login and password)? Access via IP filtering is often preferable because it typically provides simultaneous access for multiple users. IP-address recognition may give access to users via a proxy server, permitting licensed library users to access content from outside the physical orbit of the library is a crucial feature Access via login and password is also less most well-liked.

Compatibility: The resource should be compatible across a range of platforms and, where local installation and maintenance are required, should be compatible with existing hardware and software supported by the library. The selector ought to conjointly verify if the e-resource needs any special hardware, software, multimedia, and/or audio capabilities.

Efficiency: With the much larger volume of digital information, finding the right material for a specific task has become increasingly difficult. Sometimes there is too much data available but none is available according to our needs.

Environment: Digital libraries cannot reproduce the environment of a traditional library. Many people also find reading printed material to be easier than reading material on a computer screen.

Preservation: Due to technological developments, a digital library will apace become outdated and its knowledge could become inaccessible. But still in case of literature which never goes outdated the preservation of old physical books or in this case can be said artifacts is very important. As we should preserve our history as we go forward.

Functionality and reliability

In assessing the suitability of a resource in terms of functionality and reliability issues, the person may find it useful to evaluate the following:

1. **Search and retrieval:** The resource ought to supply a strong, versatile and easy search engine. Common features might include keyword and Boolean searching, full-text

searching, truncation, browsing (index and title), relevancy ranking, thesaurus and search history.

2. **Search strategies:** Particular consideration should be given to how the search engine works. This knowledge will be helpful in determining appropriate search strategies—particularly important when texts are in languages requiring the use of cases, declensional endings, suffixes, and prefixes.

Transliteration: Sometimes texts in databases are in Roman script, inhibiting the searching capabilities for subject and resources from other countries that use non-Roman scripts. For example, an article that deals with a country that uses the Cyrillic alphabet may not be found based on a Roman script search query. The selector has to understand what transcription system is employed for articles written in English or the other Western European languages for private, company and geographic names originating in languages that don't use Roman script.

Diacritics: Many languages use diacritics. The selector needs to check whether diacritical marks affect the outcome of searching.

Exporting and downloading: a variety of export choices like e-mail, printing, and downloading (to a machine or a private Digital Assistant) ought to be supported. Provision of citation downloads to citation management software (such as Endnote, Mendley, BibTex etc.) should be available. Consideration needs to be given to the ease of printing or downloading and to any restrictions or additional fees imposed.

1. **Integration:** The system should support integration with other resources via reference and full-text linking. The content should be indexed in discovery tools to facilitate effective discovery and delivery of local and remote resources.
2. Patron-Driven Acquisition pricing models e.g., purchase based on usage triggers, including number of views or length of use of the items.
3. **Number of users and sites:** The number of users and sites is likely to have an impact on pricing. The number of users required in a multi-user license should be based on anticipated demand. Numbers based on FTE should be based on the size of the actual user group and not the total user population. This is particularly important in selecting specialized resources with a specific and limited target audience.

4. **Access concerns:** it's suggested apply that the subsequent points governing access by a library's patrons should be enclosed in any contract that a library, its governing establishment, or its pool signs.
5. **Authorized Users and Sites:** Authorized Users" and „Authorized Sites" should be defined as broadly as possible. 'Authorized users' are all persons with a current, authenticated affiliation with the subscribing institution(s). This could include full- and part-time students and employees (faculty, staff, affiliated and visiting researchers and independent contractors). Visitors who have permission to use the institution's publicly available computers should have access to the licensed resource. This is commonly known as „walk-in use", „Authorized sites" should include all sites including satellite facilities in different geographic locations. Authorized users should also have access to the licensed resource from home offices or any other remote location, through the use of a proxy server or other IP-authenticated protocol as provided by the subscribing institution. This is commonly referred to as "remote use".
6. **Method of access:** Access ought to be allowable via informatics authentication for the entire institution(s), including simultaneous access for multiple users, in different geographic locations, and sites. Such access should be provided without requiring the use of a password or other code.
7. **Archiving policy and perpetual access:** The resource supplier ought to present a clearly articulated archiving policy for the information being licensed. The resource provider should have an arrangement with LOCKSS, Portico, or other similar types of archival products, or with an open source compliant archiving system. The supplier ought to grant access to the commissioned content of the resource for the mutually agreed time period. The purchasing or leasing of electronic data should include provision for perpetual access to that data. Following any termination of the license agreement, the institution's perpetual electronic access to the previously subscribed content should be guaranteed.

Institutional archives/self-archiving: The resource provider should allow an individual institution or author to upload work to their Institutional Repository either in pre- or post-print format. Preferably, the resource supplier ought to allow and supply the post-print version of the work that seems within the resource provider's publications.

Health hazard nature of the radiation from materials used in manufacturing PC's

Challenges for digital resources

1. Lack of standardization for digitized information
2. Quick degrading properties of digitized material
3. Different display standard of digital product and its associated problem
4. The e-resource interface should be user-friendly
5. Easy to navigate and intuitive.
6. User-friendly resources often include such features as online tutorials, introductory screens, navigation aids and
7. Context-sensitive help and personalization options such as subscribing to feeds/e-mail alerts save search history etc.

Conclusion: Digital resources don't seem to be progressing to replace the physical existence of document fully however little doubt to satisfy this demand, to satisfy the non local user digitization must be introduced so that resources becomes of hybrid nature. The initial cost of digitization is high but experiment shows that one's digitization is introduced then the cost to manage this collection will be cheaper than that of any traditional resources. Day by day the cost of digitization is also decreasing, the online publication is increasing, the need of user are shifting towards a different environment so its needless to say that after one or two years all resources will be shifted over to digital mode if not fully at least to some extent.

Large scale digitization projects are underway at Google, the Million Book Project, MSN, and Yahoo! .

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