

Networked **ELECTRONIC INFORMATION RESOURCES (NEIR):  
SOME INSTRUCTIVE THOUGHTS**

**SEEMA VASISHTA**

*Senior Librarian*

Central Library, Punjab Engineering College, Chandigarh.

E-mail: seema\_pec@yahoo.co.in

---

**ABSTRACT:**

NEIR constitute a growing proportion of library collections as the prominence is shifting from collection to access. This paper focuses on new paradigms and strategies that are ought to be considered in light of opportunities being provided and challenges being posed by the proliferating NEIR. Also explores some strategic issues involved in management and effective utilization of NEIR.

**KEYWORDS:**

*Web-based Resources, Electronic Resources, Networked Electronic Information Resources Management.*

**INTRODUCTION:**

Present day libraries are connected to the world through wires and networks. Too much of information is available wrapped in different forms and formats. E-information is becoming a major factor in information activities not only in the developed, but also in the developing countries. Usage of e-information is steadily increasing, thus enabling libraries to add major new dimensions in service aspect to its users. The focus is shifting from an original emphasis upon holding material towards the importance of being a gateway to networked information providing access rather than holding (Ray & Day, 1998). E-information is the information, which is present in remotely located databases which can be accessed through interactive communication with the help of computer and communication channel. Electronic Information Resources are the resources having embedded e-information as its content base. Usually e-information is communicated by developing networked digital environment in the libraries. The networked environment includes information and media services, products, hardware and software, and resources that are received by the user via electronic networks. A combination of following may constitute a network:

- \* Technical Infrastructure: the hardware, software, equipment, communication lines, and technological aspect of the network;
- \* Information Content: the information resources available at/on the network;
- \* Information Services: the activities in which users can engage and the services that users may use to complete the various tasks;
- \* Support: the assistance and support services provided to help users better use the network;
- \* Management: the resources (human), governance, planning and fiscal aspects of the network.

Keeping in view the network environment developing in the libraries, Klobas (1994) comments that Networked Electronic Information Resources (NEIR) comprise remote sources of information together with the tools used to gather information from them. So tools and services supporting the NEIR are given equal importance. He further argued that NEIR are important because the emphasis is on user-initiated access to a diverse range of information from a range of sources. According to Breaks (1999), NEIR is a broader term that encompasses abstracting and indexing services, full-text materials such as newspapers and reference books, electronic journals and the offerings of electronic 'aggregators', article delivery services and free resources on the Internet. NEIR as defined by Arms (2000) "A managed collection of information, with associated services, where the information is stored in digital formats and accessible over

a network.” Another working definition of NEIR (Shim & McClure, 2002) is “those electronic information resources and/or services that users access electronically via a computer network, (1) from on-site in the library (2) remote to the library, but from a campus facility, or (3) remote from the library and campus. Examples of networked resources include local, regional, and state wide library hosted or authored websites and library-licensed databases (e.g. ScienceDirect, JSTOR). Examples of networked services include

1. Text and numerical databases, e-journals and books;
2. E-mail, listservs, online reference/assistance;
3. Training in the use of these resources and services;
4. Request for services via online forms (i.e. interlibrary loan)

NEIR can significantly enhance user access to library material. They further argued that networked services like online reference service and training to use these resources are indispensable part of networked information services. However, Bertot (2004) was of the view that in libraries, network-based services and resources can take many forms. To include:

- searching library holdings;
- placing a hold or recalling library material;
- making an inter-library loan request;
- licensing online databases, e-journals, and e-books for customer access;
- digitizing library collections for online access;
- providing organized web pages that lead customers to library/non-library content; and
- providing real-time and asynchronous digital reference services.

To conclude, NEIR may include three types of networked information systems (Mritunjay, 2006):

1. Local Area Networks systems: The file servers in LAN are loaded with microcomputer based applications including various CD-ROM type databases. All microcomputers based workstations are linked to one or more file servers to share various applications and information. Thus, LAN is a distributed network system.
2. Library Online Catalogue System or online integrated library management systems: Also categorized as INTERNET. This type of network system handles traditional library functions such as circulation, interlibrary loan, cataloging, acquisition, serial control and online public access catalogue (OPAC).
3. Wide Area Network Systems: These systems communicate with Internet through Gopher, World Wide Web (WWW), WALIS, and other Internet Index Tools.

### **SERIES OF EVENTS LED TO THE DEVELOPMENT OF NEIR:**

Libraries are switching over to NEIR at accelerated pace. Electronic databases, e-journals, e-books, a variety of other media are fast replacing the print version.

1. Information exploding at exponential rates and its global nature.
2. Inflation in cost of printed material.
3. Technological developments in the form of advances in ICT.
4. Shrinking budgets but demand for providing better services.
5. Growth in non-traditional Tech-savvy users having different needs and expectations in e-information environment. Also users' needs are becoming narrow, complex and interdisciplinary.

### **OPPORTUNITIES OFFERED BY NEIR:**

NEIR are playing a vital role in disseminating information through networked environment. Its invention has transformed the ways libraries provide information to the user.

1. Fast and easy access to information is core opportunity bestowed by the NEIR.
2. Libraries have evolved as a gateway to networked digital information, providing access rather than

holdings.

3. NEIR are quite popular because users need not come physically to the library to use print formats but can stay at their work place and access online library resources via networks or authentication methods at any time.
4. Information access and retrieval have become more collaborative.
5. Information is retrieved and delivered as and when required, so becomes “just in time” rather than “just in case”.
6. Effective search and browsing facilities available.
7. NEIR are available to users 24 hours a day, seven days a week and 365 days a year around the globe.
8. NEIR are often available faster for consulting as compared to their print counterparts.
9. Very less storage space is needed.
10. Also precludes the problems of theft, defacing, tearing of pages and binding of library documents.

#### **CHALLENGES POSED BY NEIR:**

Some of challenges associated with emergence of NEIR include selection, acquisition, storage and information delivery.

1. Challenge of networking i.e. establishing local area networks and providing connectivity to global networks.
2. Proliferation of NEIR, which is not mirrored by a relative increase in the number of trained/skilled library staff.
3. Growth in non-traditional students, who have different needs and expectations from this rapidly growing digital environment.
4. Fiscal challenge for developing and maintaining IT infrastructure as infrastructure for accessing NEIR is improving almost daily.
5. Maintaining balance between print and NEIR
6. Challenge of access, licensing and archiving of NEIR
7. Immediacy, accuracy and currency of digital information are most demanding factors, so continuous evaluation of available NEIR.
8. NEIR are not straightforward when compared to internet search engines. Users have to be more selective in use of search words.
9. Challenge of developing necessary skills and acquire requisite knowledge for accessing to vast NEIR available.
10. Subscription to NEIR requires a substantial commitment to the resources.
11. NEIR that libraries provide are not under their control because these are often not the content creators.
12. Challenge of sieving of relevant information from an ever expanding information base and obsolescence of a large proportion of existing knowledge.

#### **STRATEGIC ISSUES FOR NEIR MANAGEMENT:**

Large influx of NEIR has been posing problems to users like strategic use of NEIR. Effective management is the solution, which can result in improved access and more efficient and effective library services. NEIR initiatives has drastically reduces the cost of storing, processing, communicating and disseminating information, thus effecting the management. Managing NEIR is quite different from managing a collection of non-electronic information resources. Following issues are to be taken into consideration for effective management of NEIR (LaMarca and Brantrup, 1997):

1. Computer equipments and networks are needed to access e-information
2. More staff with different skills have to be involved
3. Maintenance is more complex
4. Patron's skills and need are one of the important factor

Electronic versions/options present tremendous opportunities, but also provide challenges. Having identified the opportunities and challenges, the question is adaptation of strategies for effective utilization and management of NEIR. To squarely face the challenges posed by the NEIR, comprehensive and cohesive policies based on realities must be formulated. Some of important policies/strategies related to acquisition, processing and dissemination of NEIR are given below:

### **1. Selection of NEIR:**

Selecting NEIR is more complex because there is an array of related factors that need to be considered such as equipment, space, costs, printing charges, balance of resources, technical and vendor support (White and Crawford, 1997). Other issues, as identified by Coutts (1998), include content, ease, speed and effectiveness of use, volume of use and networked access for remote locations, license restrictions on access and copyright restriction in the use, as well as maintenance of hardware and software. Selection tools are available electronically and librarians need to be computer and information literate to surf through the various tools at their disposal.

### **2. Cataloguing of NEIR**

Library catalogue should be used as primary locator for all library resources including NEIR. It is recommended that all NEIR be listed in the library catalogue. It will help users find the relevant material at one single location, regardless of the format. This approach avoids proliferation of resources lists which will result in maintenance problems. Hyperlinks could be inserted into OPAC, so users can easily jump from a found record to the resource.

### **3. Promotion of NEIR**

For users to know the available resources, awareness is very important along with the ability to access and utilize the NEIR. Web pages can be used to highlight and advertise the newest resources.

### **4. Evaluation:**

NEIR are ephemeral. Websites regularly move, change or disappear. Thus, in addition to producing lists of recommended resources, creating an evaluation framework is very essential aspect in management of NEIR.

### **5. Librarians' Skill :**

Development of any technology for the good of libraries is always welcomed, but if its pace is too fast for the librarians to get adjusted to it, it is bound to create problems. These rapid and drastic changes in working environment of library professionals are compelling them to change their roles to face the emerging situation. Librarians must accept the changes boldly and must equip themselves to face the challenges by developing professional as well as personal competencies. According to Mutula and Maknodo (2003) the current electronic environment calls for skilled and knowledgeable librarians who can effectively explore the various electronic resources available to make intelligent selection decisions. Librarians as information specialist need to work towards meeting the needs of the users through the intelligent use of NEIR and emerging technologies. In the new IT era librarians need to be competent in hardware and software needs and evaluation as well as electronic information navigation skills. Formal training programs and active involvement of librarians are the crucial steps that can facilitate effective use of these resources. Last but not the least, all the staff members need to be concerned.

### **6. User Education:**

The ability to use e-resources efficiently depends on basic computer skills, knowledge of what is available and how to use it and ability to define a research problem (Renwick, 2005). User education is very important to ensure maximum utilization of costly NEIR. Ensuring that users have the competencies to make good use of NEIR is a big challenge. Training in the form of workshops, orientation courses, manual etc is necessary. Training programmes must be conducted with a focus on empowering users with skills on how to access available NEIR. Simple and self-teaching online tutorials can also provide a great deal of help to enhance information seeking skills. Constant training and retraining is necessary in the new information environment. Also some innovative approaches should be used to suit individual libraries' requirements. The libraries may provide Internet connectivity and dial-up access to all its users' so that they can access the subscribed NEIR of the library from their home or workplace. This will facilitate Library and information centres to cater to more number of users.

## CONCLUSION:

NEIR are new vision of information of the future. These are the mainstay and life blood of present day information centres. Because of NEIR, libraries have started functioning as Information centres. Obviously these are tasked upon to manage NEIR, to manage technology for timely/quick retrieval of information and to formulate strategies for effective dissemination of NEIR. This article provide useful insight for the library management to take appropriate cues and then evolve strategies in a rational and systematic manner to achieve a higher awareness and skill level by the users of NEIR. It is concluded that with dedication and proper planning emerging challenges can be transformed to opportunities for development and effective utilization of NEIR.

## REFERENCES:

1. Arms, W.Y. (2000). Digital Libraries, MIT Press, Cambridge, MA.
2. Bertot, F.C. (2004). ***"Libraries and networked information services: issues and consideration in measurement"***. Performance Measurement and Metrics; V5 (1), pp11-19.
3. Breaks, M. (1999). ***"Management of Electronic Information"***.  
<http://educate.lib.chalmers.se/IATUL/proceedcontents/chanpap/breaks.html>
4. Coutts, M.M. (1998). ***"Collecting for the Researcher in an Electronic Environment"***. Library Review; V47 (5/6), pp282-289.
5. Klobas, J.E. (1994). ***"Networked Information Resources: electronic Opportunities for users and Librarians."*** Information Technology and People; V7 (3), pp 5-18.
6. LaMarca, M., Brentrup, R., Fark, R. and Jargo, L. (1997). ***"Managing a Collection of Electronic Information Resources"*** in Papers, CAUSE Annual Conference on "The Information Profession and the Information Professional,"  
<https://www.educause.edu/ir/library/html/cnc9753/cnc9753.html>
7. Mritunjay Kumar (2006). ***"Networked Information Society: A Window to Library Profession in 21<sup>st</sup> Century."*** Published in 4<sup>th</sup> Convention Planner held at Mizoram, Aizawal from 9-10 Nov. 2006, pp 455-463.
8. Mutula, S.M. and Makondo, F.S. (2003), ***"IT skills needs for collection development at the University of Botswana Library"***. Library Hi Tech; V21 (1), pp94-101.
9. Ray, K. and Day. J. (1998). ***"Students attitudes towards electronic information resources."*** Information Research; V4 (2), p1-26.
10. Renwick, S. (2005). ***"Knowledge and use of electronic information resources by Medical Sciences Faculty at the University of the West Indies"***. J. Med. Assoc.; V93 (1), pp 21-31.
11. White, Z.G. and Crawford, G.A. (1997). ***"Developing an electronic information resources collection development policy,"*** Collection Building; V16 (2), pp53-57.