Journal of Advances and Scholarly Researches in Allied Education
Vol. 16, Issue No. 6, May-2019, ISSN 2230-7540

Study on Collection Development and Electronic Information Resources

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Abstract – Electronic tools have given rise to the production and growth of the e-publishing industry in the area of ICT. Digital content resides in a medium that can be stored, structured, distributed and viewed by a device without any transfer method interfering. They refer to the use of information technology in the development of publications and the dissemination of text via electronic means through computer terminals. The aim of the collection development is to recognize the knowledge needs of consumers, pick, obtain valuable records, follow a comprehensive and judicious expenditure on document selection, check the selection regularly and weed out unnecessary materials from the collections. It was aimed at creating a diverse collection that satisfies the university library's priorities. This paper covers the theoretical description of collection development and electronic information resources developing perspectives of Collection Management Functions.

Keywords: Collection Development, Electronic Information Resources, Collection Management

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1. INTRODUCTION

Electronic tools have given rise to the production and growth of the e-publishing industry in the area of ICT. For all digital services, it is an umbrella word. Digital content resides in a medium that can be stored, structured, distributed and viewed by a device without any transfer method interfering. It is regarded as 'born interactive'. They refer to the use of information technology in the development of publications and the dissemination of text via electronic means through computer terminals. In the production, dissemination and storing of information, these tools play an important role.

Many genres, platforms, storage and distribution media are composed of electronic tools. It is a mix of certain 'born digital' and 'made digital' tools. Storage refers to the format that is used to store and transmit users' content. A CD-ROM, magnetic tape or a server that is accessible via the Internet can be the distribution mechanism (Johnson, 2004). The electronic content arena also requires tools covering a wide range of items, such as indexing and abstracting systems, electronic books and serials, knowledge aggregators' electronic directories, paper distribution services, and websites. Many of these tools can be installed directly on the server of a library or can be accessed centrally via a modem or direct Internet links operated by the library.

In academic institutions, the value of electronic information services is continuously rising. Their key slogan is to have control instead of possession. Initiatives such as consortium methods and e-resources in university libraries are rising and gaining traction for using, for example, UGC Infonet, NPTEL Courseware. University libraries must transition from a library model mainly targeted at the control of resources to one in which entry and distribution play a more critical role with limited interruption (R. M. Michalko & Hughes, 1991).

Continuous, steady development in goods and facilities has characterised the technological tools stored and remotely accessible by librarians. They raise specific factors such as the contrast of different distribution and access media for the same content, complicated price mechanisms, retrospective file access, copyright, protection, bibliographic control, indexing, concerns with archiving and contractual licencing, and high costs. In the library procurement process, the broad proliferation of electronic services raised new problems such as site licences, copy right concerns and ways to provide access to different electronic resources (D. Sivaraj etal, 2007). Good principles

and practises for the usability of applications, uniform format, interoperability, data encoding and transmission technologies for the transmission of information are also in the implementation stage.

Various authors and organizations have defined E-resources as follows: AACR-2 defined e-resources as “a material (data/ program) encoded for manipulation by computerized devices. Thus material may require the use of a peripheral directly connected to a computerized device (eg CD-ROM) or a connection to a computer network (eg Internet)”. On similar lines C. Tenopir(2000) has defined e-resources “as those electronic information resources and services that user accesses electronically via a computer network from inside the library or remote to library”.

Electronic resources are described as information resources that are publicly accessible and can be accessed via a personal computer. This include privately generated services such as web or CD-ROM links to bibliographic databases, electronic journals, electronic books, as well as tools that are publicly accessible through the Internet, especially to higher education institutions or the general public.

E-resources are described by many organisations and writers from many points of view. For the purposes of this analysis, however, electronic tools are known to be those materials that require computer access and can be mounted locally or accessed remotely over the internet.

2. EVOLUTION OF E-RESOURCES IN LIBRARIES AND INFORMATION CENTERS

It is possible to study the history of electronic capital after the introduction of computers in the 1950s. It was not until the early 1960s that electronic material in the form of electronic bibliographic indexes was first implemented into libraries (R.D.Gennaro, 1973). A considerable volume of disc space was filled by these bibliographic documents. Each technical advancement steadily contributed to the development of online catalogues during the 20thcentury.

The Machine Readable Catalogue (MARC) was one of the major inventions. In 1967, the Ohio College Association set up the Ohio College Library Centre, the first computerised library network in the country. OCLC launched a shared archive for cataloguing in 1971. 54 public libraries in Ohio have been sponsored. This online cataloguing has allowed bibliographic documents to be accessed by libraries. Library card catalogues were replaced by internet catalogues during the 1980s. The introduction of hard discs and random access memories in microcomputers, meanwhile, stimulated the development of a range of consumer products for bibliographic documents and related content handling (J. L. Mac Lean, 1987).

In the mid-1980s, as CD-ROMs were sold on a subscription basis, librarians started choosing e-resources. Many CD-ROMs were traditionally copies of paper goods, and modems were used for online indexing and abstracting datasets. Most libraries had working CD-ROM networks with multiple access terminals and numerous electronic CD-ROM publications in the mid-1990s (R. W. Boss, 1992). The first on-demand search tool database was the Medical Literature Review and Retrieval System (MEDLARS), with its web edition, MEDLINE. DIALOG provided the first commercial online public library. Roger K.Summit established it. Libraries were able to subscribe to and use the resources provided by those systems. Full text documents also started to be applied to bibliographic libraries online.

The advent of the Internet and Pages in the early 1990s created numerous resources for academic and scholarly contact, and with the help of multimedia, the-popularity of the web on the Internet became prevalent. It was possible to obtain information from multiple sources from anywhere at any time. It made it possible to quickly transfer digital knowledge around the world without any space and time constraints that contributed to the advent of e-resources.

In the application of e-resources in library libraries, there were drastic improvements. In order to sustain their common holdings, libraries have acquired items in many electronic formats. With the early online database providers, they formed search accounts, performed mediated searches and were paid for access time. They have also facilitated access to different forms of e-resources that are not contained in their own array.

3. NATURE AND SCOPE OF E-RESOURCES

Free internet services and electronic resources obtained or approved by libraries from private outlets, non-profit organisations, professional associations or foreign bodies are provided under e-resources. Electronic tools allow knowledge to be quickly obtained. Highly portable storage, ease of processing, multiplication, alteration of information from one medium to another, ease of dissemination, connectivity and storage are the characteristics of 21st century electronic media. The essence of e-resources is to act as a compliment to the selection of prints. It seeks to fulfil with greater ease, precision and reliability the knowledge needs of the customer (P.Venkata Ramana,2000).

The e-resource scope contains the following characteristics:

- There are no localised computer services.

- They can be accessed by the user from anywhere and they do not need to identify where they are physically situated.
- It can be accessed by multiple people simultaneously at the same time.
- Copying and uploading them into user files is easy.
- It decreases the difference between the librarian and the customer.Which provides an atmosphere for global marketing.
- They are less voluminous, very versatile, easy to study, rearrange, reformat and blend with other documents (Prabha Chandra, 2007).

4. BENEFITS OF ELECTRONIC RESOURCES

Not only for libraries, but also for customers, writers, editors, publishers and archivists, electronic services offer a range of benefits. An electronic resource has multiple benefits, such as:

- By offering quick and immediate access without waiting time for delivery, they save tremendous time, allow collaborative facilities and facilitate interaction between author, publisher and customer.
- Fast replication into modern media, reduces storage space for archives, offers hyperlinks to secondary services, enables easy access from anywhere at any time, encourages vast numbers of people to access concurrently and is eco-friendly.
- Simple search options are enabled and efficient search and recovery tools are provided.
- Enables online access from beyond a single physical library to services, consolidates several volumes and years into a single searchable file, combines sound and film, decreases stealing and mutilation.
- The material, including formulas and graphics, is manipulated and processed.
- Used concurrently by many entities, it is simple to transfer data to personal databases.
- By reducing the costs of wrapping, storing and stack repair, they save library space and staff time.

5. TYPES OF ELECTRONIC RESOURCES

There are a range of approaches to e-resource categorization, such as by means of dissemination (online, CD ROM, Web) or by material (bibliographic, full text) or by file sort (e-book, e-journal, database). The approach to e-resource categorization is focused on the form of classification used for print media for this research, which is the most developed and common categorization process , i.e. primary and secondary sources.

Main sources: e-books, e-journals, Electronic Dissertations and Theses (ETD).

Secondary sources: E-Course material, Database indexing and abstracting, E-Reference material databases.

► Primary Sources

E-Books

The downloadable copies of paper books are e-books. The word 'electronic text' was invented in 1960 by Van Dam of Brown University. The first e-book was published in Germany in 1985.

The Association of American Publishers has defined “An e-book is a literary work in the form of a digital object consisting of one or more unique identifiers, metadata and a monographic body of content, intended to be published and accessed electronically.”

An e-book is, according to Davis(1997), a published work that can be read on a computer screen, downloaded to a personal computer or digital assistant, or installed on a reader designed for that purpose in an electronic format for professionally generated and edited material. J.Mouw(1998) shared a similar view that an e-book is essentially a series of many digital items or documents that are in turn bundled and formatted with the purpose of being viewed on a portable computer or read by an application that generates voice.

On the other hand the librarians’ view of e-books is “any piece of electronic text regardless of size or composition (a digital object), but excluding journal publications, made available electronically (or optically) for any device (handheld or desk-bound) that includes a screen.”(Arnstrong Chris & et. al., 2002)

An E-book differs from a paper book because it requires some sort of mobile interface to be read. In 1998, it was a business company by commercial publishers such as Peanut Press and Questia Newspapers. It is encrypted such only a single

particular reader can be read on it. A portable electronic computer developed specifically for the purpose of reading digital books and periodicals is an e-book reader. A number of portable readers such as Kindle, Sony e-book reader, Wink etc. are in use in today's industry. On a separate reader, e-books configured for one reader might not be available. Different publishers give users with their own e-books to use their e-books supported by them.

E-books play an important role in developing the awareness of readers in general and, in particular, of study scholars. An e-book utilises the Internet's advantage by offering various platforms with links to other electronic resources and other cross-resource information. Mac Donald and Dunkelburger, (1998) said that due to the of internet and distance programme, e-books would become increasingly greater and more important part of the library's collection.

Aggregators sell e-books similar to serial subscription models across a range of subscription-based licencing models. OCLC's net library division offers college, general, corporate and special libraries with more than 68,000 e-books.

There are groups working to discuss the standards and interoperability of e-books. The Association of American Publishers is collaborating on the Free E-book (OEB) Standards Program with Accenture. This initiative proposes criteria in the field of digital rights management for publishers and writers. It is an online e-book Platform, an international trade and standards body that aims to set requirements and requirements for the standardisation framework of electronic publication and e-book files and formats. It is advised to purchase OEB-compliant equipment (Nancy Sprague & Hunter Ben, 2008).

E- Journals

The Glasgow University Library stated that "any journal that is available over the Internet can be called as electronic journal".

E-journals are referred as "electronic publishing', "electronic serials", "online journals" and "electronic periodicals". By offering access to online full text content, E Journals occupy a prominent position in digital libraries. The diminishing budget of the library and the the number of journals compelled libraries and knowledge centres to establish E Journals access consortia. E journals are accessible both by subscriptions and free of charge as online journals. They can be free, charged, fee for use rental, or licenced for usage rights. Using various technology such as gopher, ftp , telnet, e mail, list serve, they are remotely accessed. The cumulative number of scientific serial publications according to Ulrichweb.com is as follows: (Source: www.ulrichsweb.com/ulrichsweb/analysis/).

"Academic & Scholarly Journals=94,687

Academic & Scholarly Journals & Peer Reviewed=55,311

Academic & Scholarly Journals & Peer Reviewed in Print=24,430

Academic & Scholarly Journals & Peer Reviewed on online= 23,527"

E-journals have gained substantial interest from university libraries due to this shift. Compared to the private subscriptions in e-journals, the e-journal consortiums are entirely operational. The consortium of e-journals formed through the partnership of participating libraries to electronically exchange journals. UGC INFONET, FORSA (Forum for Knowledge Exchange in Astronomy and Astrophysics), CSIR- Journal Consortium (Council of Scientific and Industrial Research), ERMED of the National Medical Library, HELINET (Health Sciences Library and Knowledge Network), INDEST (Indian National Digital Library of Engineering Sciences and Technology Consortium) are some of the e-journal consortiums in India, etc.

E-journals contain unique features such as links to similar articles or sources, engagement facilitation, archival facilities, fast retrieval, interactive material accessibility, delivery and communication not restricted by time and geographical boundaries, and lower subscription costs are some of the advantages that allow academic libraries to choose this medium.

Electronic Thesis and Dissertations

In a manner suitable for computer records and worldwide retrieval as well as its paper counterpart, an Electronic Thesis and Dissertations (ETD) is presented concurrently. It provides any word processor with a technical advanced tool for communicating ideas with less cost, limited space, fast handling, high durability and never gathering dust. They can be open to anybody who can search the World Wide Web at the user's option,.

There are databases of ETDs that caters to academic and scientific community.

E.g.

- Shodganga of INFLIBNET
- Vidhyanidhi.org

► **Secondary Sources**

A large range of databases providing access to reference / bibliographic / numerical and statistical information are available. Ex. For ex. Both full text and CD-ROM formats, several dictionaries,

directories, almanacks, encyclopaedias and other reference documents are available online. A variety of research documents are freely accessible online. Any of the beneficial indexing/ abstracting databases are: LISA, Pub Med, Dialog, OCLC First Quest, Cambridge Scientific Abstracts, Ovid, EBSCO, World of Information, Scopus. Databases are in place to provide economic and statistical data. Census databases, Indian Economy Databases, Asian Development Bank, Indian Reserve Bank, Medical Databases and GISTINIC.

Data tools must be chosen from data archives, compiled, stored and disseminated. Compared to conventional print services, the option of electronic tools in academic libraries is necessarily more complex and presents many challenges, such as access, configuration, storage, interface, room, preservation, technological support, vendor support and licensing.

The changing nature of the processing and distribution of information provides a drastic catalyst for a reconsideration of database management problems. The procedures and procedures of old inventory management and inventory growth require improvements and upgrades to suit the new trend..

6. COLLECTION DEVELOPMENT AND COLLECTION MANAGEMENT

The idea of collection development (CD) originated from the emergence of modern and special needs of libraries in the 1950s and 1960s to satisfy the rising demands of the rising number of academics and students. To define and find essential tools, consultants were employed to ensure that the library was successful in having the items it essential. It was during this time that CD began as a separate librarianship role distinct from acquisition. "The" premier feature of librarianship "was called the CD.

Collection development (CD) according to the Encyclopedia of Library and Information Research “is the sum total of library materials- books, manuscripts, serials, government documents, pamphlets, catalogues, reports, recordings, microfilm reels, micro cards and microfiche, punched cards, computer tapes etc. that make up the holdings of a particular library”.

The Harrod’s Librarian’s Glossary (1984) defines the term collection development as “The process of planning a stock acquisition program not simply to cater for immediate needs but to build a coherent and reliable collection over a number of years, to meet the objectives of the service”.

The collection development is a central step in the establishment and management of any library and information system without which users cannot be provided with successful services. It is defined as the method of acquiring books and non-print media required to fulfil the request for information and to obtain impartial systems.

The aim of the collection development is to recognize the knowledge needs of consumers, pick, obtain valuable records, follow a comprehensive and judicious expenditure on document selection, check the selection regularly and weed out unnecessary materials from the collections. It was aimed at creating a diverse collection that satisfies the university library's priorities.

The collection development as a specialty during the 1970s was documented through technical societies, conferences and institutes. The word collection management (CM) was coined sometime between 1974-1979 in favour of collection production (David L.Perkins, 1979). A variety of recommendations for the key task in collection development were developed by the Collection Development Committee of the Resources Division of the American Library Association (ALA). A set of 'Guidelines for Collection Growth' was first released. Furthermore, ALA organised a pre-conference in Detroit in 1977 to focus on this emerging librarianship sub-discipline. In 1979, a report was written that was revamped and reprinted several times in collection management and growth of limited focuses. The result was that a major change from the old definition of collection creation to collection management was accepted.

Collection control is the organised, effective and economic stewardship of library materials, according to Thomas E. Nisonger (2001). Since it is analytic and pragrammatic, it is systematic. This deals with practical services that meet the goals and priorities of the university and library. It is financial since the facilities are responsible to the administration of the library, the user groups and the parent organisation. CM was expressed as "pre-positional research" in librarianship by Paul Mosher (1983).

Management of collection requires option, request, procurement, budgeting, distribution of funds, technological management, access to storage, maintenance. It also requires human resource administration in carrying out these tasks.

The eight roles of CM were demonstrated by the Infrastructure and Technical Services Branch, Inventory Group and ALA's Collection Control and Development Committee.

- They are going to prepare a policy statement on collection growth.
- Allocate unique budgets that will maximise their effects on business demands and user requirements.

- Analyze collections and analyse them.
- Collections of analysis for weeding and protection.
- Conduct surveys on consumption and consumers.
- Study the CD and selection programme 's performance, economy and effectiveness.
- Determine the feasibility of the software for purchase.
- Build activities for cooperative collection creation with other local or regional libraries.

Therefore, for the purposes of this collection management report, the practices from collection building to the management aspects of the usage of collection , storage, organisation, dissemination, database facilities, distribution of resources and access to information are viewed as a range of activities.

7 COLLECTION DEVELOPMENT VS COLLECTION MANAGEMENT

Two main dynamic practices in an academic library are collection management and collection creation. They are synonymously used, but have variations. The relation between the terms of collection creation and collection management has led to extensive discussions.

Michael K.Buckland(1989), Christopher Milson(1985), Paul H.Mosher(1983) took the view that two synonymous concepts are collection growth and collection management. Whereas Marcia Pankake (1984) insists that these two terms are not interchangeable, but that the wider term considers collection growth. In comparison, Murray Martin (1984) defined collection management as the broader part of Edward G.Evans(1987).

The 1990s librarians tried to differentiate between the collection development and collection management for eg Derek Law (1996) claimed that "Collection Development relates to the selection and acquisition of material for an expanding collection and decisions on the material to be included in that collection. Collection Management subsume this, but also includes the allocation of book fund and the balance between books, journals and conservation; the disposition of stock between open and closed access, between different media, and between branches of the library dealing with the selection and library and stores; and finally the monitoring and encouragement of collection use. In sum, collection management also includes issues concerned with conservation and disposal, and is aimed more at the presentation of the collection to the user than at the collection itself."

Similarly Jenkins Clare and Mary Morley (1996) opined that "Collection development is perceived as a concept more appropriate to earlier times of expansion in higher education and academic libraries. It implies building and growing, dealing with the selection and acquisition of library materials. Collection management is a more demanding concept, which goes beyond a policy of acquiring materials, to policies on the housing, preservation and storage, weeding and discard of stock. Collection management emphasis the systematic management of the planning, composition, funding, evaluation and use of library collections over extended periods of time, in order to meet specific institutional objectives."

As alluded to by Dennis P.Carrigan (1995), collection creation and collection management are two complementary practises. They are not interchangeable or the other is subsumed by the words. Instead, the collection management practises determine the terms and conditions for the use of the collections by patrons and a return on the expenditure of the collection. But the collection production operations decide the expenditure in the collection. Thus, collection production practises are comparable in value to collection management tasks.

Jutta Reed Scott (1984) thought that the organised, scheduled, recorded method of creating, sustaining, and retaining collections is collection management. It offers powerful resources for the potential formation of archival collections. It concerns four elements, explicitly. A key phase in this planning process is planning, which is the most important function of collection management, and the development of a formal collection growth strategy. Effective sourcing or procurement of required items is a second significant feature of collection management. The continuing appraisal and review of collections is the third aspect of collection management. Lastly, the idea of shared collection creation and resource sharing is central to collection management. Collection management, in brief, seeks to extend the fundamental components of the planning process to the creation and preservation of collections. It is a series of activities such as connexion, order and preference. Collection production, on the other hand , focuses on collection building and implies a phase of continuous growth. Collection production has only developed into collection management in the last few years. The creation of collections turned out to be a sub-activity of collection management.

Therefore, a number of activities including collection evaluation, selection, order, procurement, technical analysis, organisation, storage, entry, usage, input and weeding out of irrelevant objects are considered for the purpose of the study collection management, while collection

production is the operation confined to collection creation, selection, order, and procurement.

8. COLLECTION MANAGEMENT FUNCTIONS

Within the university library, collection management is a central practise. It is a measure that decides the consistency of library collections of significant significance. It is an integral part of the optimum functionality of its computer services. Their roles include:

► Collection assessment

Assessment of the collection allows the collection to be assessed, evaluated and judged according to particular significance, scale, consistency and usage requirements. Which involves study of both the inventory of the library and its use. Evaluation has many functions. It helps to consider the degree to which the collection follows the library 's aims and purpose. It should be well organised, organised and constant. E-resources are now posing new problems for the review of collections.

Collection appraisal can be defined as the formal quantitative and qualitative calculation of the degree to which the collections of a library satisfy the aims, goals and needs of its users of the library (Peggy Johnson, 2004). It is an structured method of explaining the state of the services of the library and their performance at a given time.

The primary purpose of selection appraisal is to improve the awareness of the collector regarding the collection. Knowing the selection is the duty of the selection to assess its performance and properly handle it. Assessment of selection contributes to this information. In order to calculate the distance, reach, depth of coverage usage and use techniques for accessing e-resources, libraries should seek new techniques and develop new approaches.

Traditionally, libraries have accumulated qualitative and quantitative tools for assessing and assessing collections. It encompasses a lot of various operations. Proper selection appraisal requires a detailed overview of the services of the library at a given period of time. Not only does this summary provide an evaluation of the past and current collection strengths, but also an overview of the library's potential collection strengths. The required information about the library stock appraisal (Vicki L. Gregory, 2000) is provided by evidence such as circulation figures, title count, median age of the item, shelf review by content specialists, collections reviewed against regular lists / bibliographies, inter library borrowing requests, customer surveys and focus groups.

P. Ferguson (1997) identified several common methods of evaluation for data collection used to achieve reasonably simple steps to assess and analyse e-resources. Scripted consumer surveys / assessments, transaction log or site log analysis, analysis of network use, analysis of content, focus groups and case studies are included.

The International Alliance of Library Consortia (ICOLC) has established the statistics and responsibilities for e-resource utilization data to be provided by remote resource providers. The Recommendations for Comparative Tests for the Use of Online Based Information Services were released in 1998 and updated in 2001. This figures allow libraries to evaluate and compare the use inside the particular library with others. An initiative called E-Metrics was initiated by the Association of Research Libraries (ARL), USA to address the need to quantify e-resources. Counting Online Use of Networked Electronic Tools (COUNTER) was developed by an international effort of librarians, publishers and professional associations to create an international 'Code of Practice' covering the registered and shared use of online data. A proposal for the on-going introduction, update and extension of this code has been created. Thus, electronic resource appraisal and evaluation is a recent and increasing field of focus for university libraries. The growing selection of e-tools demonstrated the need for catalogue review to be carried out and the usefulness of the electronic and printed services of a library to be decided. The librarian can efficiently measure the efficacy of their dual selection by using either of the above methods.

Techniques for collection evaluation can concentrate on the collection, or on the usage of collections and users. Each approach has its own bonuses and drawbacks. The use of two or more methods gives a full picture of the samples and validates the performance.

► Collection Development Policy

Collection creation policies are used as blueprints for library activities as a whole, in which the library conducts the core mission of collecting, storing and preserving library materials through these policies. In terms of both new acquisitions and the preservation of the current objects in the library collections, these policies provide the general structure for determining the library's priorities. Libraries with two communities in mind, namely the library staff and the wider population of library users, are traditionally written and produced.

The ALA (1987) identifies Collection Creation Policies as "documents that describe the reach of current library collections, intend to continue resource growth, recognise collection strengths, explain the relationship between the theory of

selection and the priorities of the organisation, general selection criteria and intellectual freedom."

Most libraries started to set up written CDP for printed collections and some audio visual resources in the 1970s. E-services are now becoming such an important part of the infrastructure of a library that CDP has to be substantially rewritten or updated in order to take these services into account. CDP is a mixture of procedure definitions, judgement criteria and requirements aimed at defending against unjustified demands to purchase, preventing the procurement or discarding certain types of products.

A variety of goals have been fulfilled by conventional CDP, such as advising, leading and maintaining library processes in purchasing, shielding the library from threats and making users' services accessible. The key provisions of the American Library Association have defined that the conventional CDP is meant to "Describing the library user community, defining their institutional mission of the library and identifying its user needs. Provide selection criteria and guidelines for the selection and use library materials. Identify those selection tools and processes that are most appropriate for particular library. Define the process for identifying materials for weeding, cancelation, storage and replacement of materials. Establish responsibilities for the various aspects of the collection development process and collection management activities. Create a plan for the future collections and budgeting of resultant library expenditures. Serve as a training document for new collection development librarians and other staff who are in charge of the overall management of the library. Provide guidelines for gift materials. Provide guidelines for dealing with complaints about materials or services. Support cooperative collection development activities by documenting and identifying both the strength's and relative weakness of the library's current collections. Aid to provide grant proposals and planning development initiatives through its supporting documentation. Serve as a communication vehicle for library's staff, administration and its various constituencies. Protect intellectual freedom. Provide a clear and carefully described rationale for library's collection goals and practices. Protecting the library from pressures to acquire or provide access to inappropriate or irrelevant resources".

A series of uniform collection policy elements for e-resources has been assembled by the Collection Creation and Assessment Section (CODES) of ALA 's Guide and Consumer Services. It was used to guide the creation of print, non-print and e-resource libraries, to administer contracts, licenses and to buy access rights to remote digital services.

CDPs have often focused on the selection of libraries and, as they have been for conventional print content, are also important for e-resources. In the acquisition and management of e-resources, CDP written in mind solely for the print world would not be of any benefit. In search of new initiatives that hold the principles of those policies alive but represent the realities of the modern communication environment, the old policies have to be updated.

► **Budgeting and fund allocation**

Budgeting is a conventional method of preparation in which certain assumptions are taken regarding programme development. The budget for libraries is a dynamic consideration, because libraries are not for profit organisations.

According to Gorman (1991), university libraries typically follow either of the following approaches to finding and financing e-resources, or a mixture of them.

"All purchases of electronic products and subscriptions are taken from the general materials budget of the library. Some libraries set aside a certain percentage of the materials budget for electronic resources. Some libraries allow a portion of their materials budget to cover hardware costs or processing costs including software costs. Some libraries require purchases of electronic products through team selection or at least with a check off system so that a review of the product is made before it is selected for purchase."

The literature surveyed indicates several models to subscribe and access e-resources. The methods have been summarized below:

- Subscription–Based: This pricing model is based on an annual subscription cost. If the library subscribes to the written edition of the resource, it is possible to use the downloadable version of the resource at no added expense.
- Electronic-Plus- Paper: If the library subscribes to the written edition, access to the downloadable edition will be subject to a minor extra fee.
- Electronic–Only Subscription: Some publications are only available electronically and they carry their own cost for subscription.
- Additional Pricing Model: Some of the electronic versions are available without subscriptions to print version, at the same subscription cost as the print product.
- Some publishers and aggregators operate on "pure bundling" model where a library or consortium must license the entire lists of their journals with no individual selection possible.

- Access Based Pricing Models: Some publishers price their products according to the number of simultaneous access by users or port purchased. The publisher limits the use of its product to x number of users at one time.

- Site Licensed Based Pricing Model: It allows unlimited access with no restrictions on number of simultaneous users. It is cost effective if use is expected to be high.

- Pay Per Use Access Model: Some aggregators of electronic journals and databases offer a pay-per-view option that allows users to enter an account already established or a credit card number to access articles from journals that are not for subscription.

- Subscription supplemented by Pay-Per Use Model: It includes subscription of core collection of material with a supplemented pay-per- use arrangement for other content.

Consortia Purchasing

Since electronic resources are more costly than paper, libraries come together to buy electronic information tools such as e-journals and databases jointly. It has reduced the financial crunch on university libraries to a degree. This lead to the development of a group strategy. The expense is distributed over a multitude of member libraries to make considerable savings. FORSA Consortium (Forum for Resource Sharing in Astronomy), CSIR Consortium (Council of Scientific and Industrial Research), INDEST Consortium (Indian National Digital Library of Engineering Sciences and Technology) and UGC Infonet Consortium, etc, are the electronic consortium initiatives launched in India.

► **Acquisition Program**

Collection creation and procurement initiatives in libraries and information centres have always been tightly organised. They rely on the library and its parent organisation's priorities. The sourcing method involves the following tasks, such as the collection of books, the order of books, the purchase of books, accessioning, electronic sorting, storage and servicing.

Selection

According to J. Feather and Sturges P (1997) “book selection is one of the most important techniques with which librarianship is concerned for it is the book stock that gives a library its character and more than its staff and buildings”. In the opinion of Melvil Dewey the motto of book selection is “best reading for the largest number at the least cost”. S. The five laws of library science by R. Ranganathan describe the value of choosing books. The definition of how a library collection should be was underlined by his first three rules. "Books are for use" is mentioned in his first statute. It makes it mandatory for the library to choose books that are used by members of the library. Second law notes that "Each reader of his / her text" stressed the need to take into account the criteria of the customer when choosing library books. Third law notes that "Any book its consumer" indicated that it was important to make every attempt to use the selection for the good of its readers. Rev. Francis. From his rich experience, K. W. Drury claimed that 'the high goal of book collection is to offer the best book to the best audience at the right time.' For certain libraries, the availability of electronic services appears to be challenging. In today's collections, Collection encompasses a range of different technological and expense variables.

Access Vs Ownership

Vendors provide a variety of tools, titles, or photographs to bundle or package that have an effect on the method of selection from title by title collection to an aggregate approach. Such changes have arisen at a startling rate and have taken the form of possession vs property licenses and several repercussions for limits on users' fair use privileges. (George, Vicki, 2007)

Licensing

The purchasing of the resource or just having the copyright and license issues to use it is one of the main problems that a library faces when acquiring any new electronic content. In the modern electronic era of content, many of the conventional fair use protections enjoyed by libraries for printed documents are no longer guaranteed. It has been inevitable for procurement librarians today to comply with licensing arrangements for e-resources. The amount of license conditions and special provisions unique to them continue to expand at a higher pace as the number of available databases increasingly grows. The Copyright Act of the Digital Millennium, passed by the US In 1988, Congress included a variety of additional e-resource limitations. In general language, the equal use doctrine codifies the U.S. copyright legislation relating to acceptable reasons or uses such as critique, commentary, news reporting, teaching, scholarship or analysis. The In India

The Copyright Act (amended in 1994) protected e-resource copyright issues. The global community has responded to the challenges raised by treaties framed in 1996 called the WIPO Copyright Treaty (WCT) to the copyright regime, especially via the internet. The treaties discussed the problems associated with the distribution of secure

information over distributed networks, such as the Internet. Security for writers of literature and artistic works has been expanded. The problems posed by digitization of works and the Internet were discussed. There are also other clauses of this deal, such as the right to public correspondence

Vendor Relationship

Librarians have to negotiate with Online open directories and journals from distributors, sign a licensing agreement with a publisher or distributor before accessing the resource. The basic model of librarian / vendor partnership is goods and specifications where librarians and vendors work together to maximise library patron service. These licence arrangements vary significantly and are not common and predictable from various vendors. In developing and sustaining a personal partnership with libraries, vendors can devote a substantial amount of time. To ensure that the fairest offers and best practises are received on behalf of the customers of the library, choices should be taken fairly to deal with relevant vendors and publishers.(Holden,2010)

Standards to have a clearer interpretation of the problems posed by licencing agreements in the digital era have been described by the Association of Research Libraries, USA.

In order to identify these practices and principles, the Digital Library Federation-Electronic Resource Management Initiative (DLF ERMI) (2007) was developed to provide greater control over the licensing of online collections and other similar issues related to e-resource collections. It became a de facto standard in 2004 for the production of frameworks for handling electronic capital. Data components, roles and interrelationships between components were defined in the main objective of its study. It developed guidelines for license language, utilization data, and definition in the second step, which became a de facto framework for developing a structured approach to license management. In its report, the key features highlighted were the administrative and administration of license agreements, as well as the internal processes relating to likened electronic services.

The conventional positions played by state occupants have thus altered the acquiring of electronic information. The librarian would collaborate closely with the providers of e-journals and directories to procure e-resources..

► **Resource Sharing**

Resource exchange is another significant aspect affecting the creation of library collections. With the computer network world paying way for consortia, this idea is old but has gathered popularity.

One of the elements of cooperative selection creation and management is resource sharing. It started decades ago as a means of alleviating problems of lack of capacity, high newspaper prices, small budgets and expensive replication, especially for less used materials. In such an academic, economic and social climate, self-sufficiency is a myth. Resource Sharing was introduced since no library would fulfil the needs of its users individually. It brings users to the content and information provided, regardless of where the content is stored. Michael Buckland (1992) writes that sharing information has two uses: mutual library collaboration and the efficient use of technologies.

Resource exchange has grown to include consortium arrangements to buy community access to technological services at subsidised rates in the new digital world. The purpose of these consortia is to exchange tools that are accessible in electronic form, mainly periodicals, followed by books, articles, reference documents, theses, and dissertations. A consortium provides access in electronic form to full text databases, publications in journals, academic papers and other information services. It was practised in the framework as an arrangement between libraries that contributed to collaboration. According to Summerhill (1991), the overarching goal of electronic resource exchange is "a unified network that is essentially a restructured interlibrary lending model to be accessed between library employees and end users." He foresees countless possibilities across electronic networks to exchange knowledge services.

The establishment of cooperative licence arrangements that enable library consortiums to share the obligations and costs of providing access to electronic content is an essential feature of resource sharing in the digital knowledge environment. Other than interlibrary library lending requires a consortium. The Committee for Institutional Cooperation (CIC) took the lead in investigating resource sharing possibilities in a networked world. A smaller electronic journal set for which clear archiving is available has been developed.

► **Technical Processing**

An significant part of collection management is technological sorting. Cogswell(1987) notes that CM has gravitated away from the area of professional resources for some time, where it has traditionally evolved out of the position of the library as a distributor of demands for faculty books in a deliberate move to be more sensitive to evolving consumer needs. It requires the sorting of materials by library users for fast retrieval. This includes the sorting and cataloguing of records held in the library in order for customers of the library to obtain and use them efficiently and effectively. The

development of bibliographic databases is also involved.

Levels of e-resource organising

The primary purpose of professional resources is its usefulness in the past and the current. Libraries pass through five stages or layers of organisation in the introduction of access and arrangement of electronic goods, according to George Vicki (2000), from initial non-formal organisation to maximum cataloguing of objects by MARC. As follows, he described the five levels:

"In the first level there is no organization. The library simply offers users open web access. In level 2-Web-bibliographies are compiled by the library. These links are hyperlinked on a computer page to provide a method of taking user directly to the recommended website. In level-3 Web-bibliographies are supplemented with addition of metadata to selected web resources that are housed on a local server to facilitate retrieval. These resources may be searched from the library website or from the electronic catalog. In level-4 libraries catalog the physical items purchased but remotely accessed resources are also linked through the library website. In level-5 libraries apply MARC cataloguing to electronic or web resources. Libraries in level-5 follow one of these approaches.

- Catalog all those electronic resources that are either owned by the library or maintained on its local system.
- Catalog those significant resources that are anticipated to be heavily used by local patrons or library staff
- Catalog all items identified by subject specialists that fit the collection development policy of the library."

Cataloguers have been involved in the organisation and collection of electronic information routes.

► **Access**

The definition of data elements in electronic format is more popularised by metadata. Controlling access to permitted accounts or services means using e-services. Regulated access requires a procedure of two phases. The first step requires the "authentication" of e-resource access consumers. They will be able to access all e-resources until users are registered, regardless of where they are physically situated.

A variety of structured ways to allow remote access to their customers have been set up and built by publishers. This approaches include approaches that include

- IP Access-Database and electronic journal vendors allow IP authentication for a specific range of IP addresses.
- Generic Passwords based approach- Allows users to use numbers or codes that are standardized for a particular organization. This approach is effective when resources are licensed for use by a consortium.
- User account coupled with IP source detection.
- X.509 certification that gives a particular machine the right to use a particular name. The name is verified by checking the 'certificate authority'.
- Proxy Server: It is a computer that offers a computer network service to allow clients to make indirect network connections to other network services.
- Virtual Private Network (VPN): A proxy server is capable to connect a remote user with specified resources, but in some cases distant offices and remote users are required access to the institutional network as if they are actually, physically on the institutional intranet.
- Athens Authentication: A method for individual libraries in a consortium to create, manage and terminate their own user accounts, allow users to select and change their passwords and give user access to both consortium and locally owned resources.
- Shibboleth: It is an EZProxy-based authentication method for entry. It is a basic open source middleware that offers access to likened e-resources across or inside organisational borders to Network single sign-on (SSO) service.

Providing access to e-resources enabled the library user's easy recovery, but created several problems for the librarian for collection creation. They have to consider the various access licenses that involved significant ongoing obligations like access given to anyone who access the library through Internet, only to onsite user, only to anyone who comes into the library, access permitted for offsite users, access provided at different access nodes located on the campus, permission to print, copy or download from the resource, number of copies permissible, permission to make copies of the e-resource for inter library loan purpose, right to archive the material and termination of license agreements.

Therefore it is observed that the nature of acquisition work changed significantly from traditional to electronic environment. For quick retrieval and usage by users, electronic knowledge services chosen by the library must be arranged, for which access control must be approached from the user's viewpoint.

► **Organization and Staffing**

Staffing is the supply of employees to help customers access the facility. The availability of manpower to conduct the tasks of collection management is very critical. A separate department for collection creation has been developed in academic libraries. It is managed by an officer for the portion.

Assistant Librarian (Acquisition) to the Assistant Librarian for documentation. He is responsible for making financial criteria necessary for the cohesive, organised production and maintenance of collections. The library assistants and technical assistants would conduct each activity under the Assistant Librarian, such as book order, book accession, classification, cataloguing, inventory management, and stock maintenance. Designation nomenclature can differ, but the organisational structure remains more or less the same..

Changing dimensions of Acquisition Librarian

The role and duties of the procurement librarian have changed in the new digital climate. They are appointed as librarian of databases, librarian of computer systems, librarian of network resources, coordinator of the data base, coordinator of the network and librarian of the electronic information service. Installation of the required computer hardware and access tools, tentative authorization agreements, management of the library's electronic facilities, and review and assessment of e-resources are their key duties. They can engage in the process of providing links to the library's locally kept and online e-resource collections. They should ensure that permits for electronic materials include only certain requirements that are easy and efficient to identify for the library and its customers. They ought to get more acquainted with and prepared to negotiate. Even, if no fair compromise is available, they should be willing to refuse proposals and end talks.

Shreeves (1992) sees the librarian for collection creation mainly as gatekeepers who define the portion of the knowledge resource universe that is of considerable importance to a community of users. Indeed, such gatekeepers in the near future are more relevant than they are today.

Therefore, during the selection and implementation process, the growth of electronic services compelled librarians to become more collaborative in consulting with other librarians and specialists. In the age of electronic capital, they need to retain a high degree of versatility and call on all their technology, operation, management and human resource expertise to succeed in this modern and increasingly evolving environment..

► **Preservation**

Preservation is an essential part of collection management in large academic libraries. The introduction of electronic information tools has altered the essence of the application of restoration strategies..

It encompasses activities intended to prevent, retard, or stop deterioration of materials or to retain the intellectual content of materials no longer physically intact. P. Conway (1996) describes preservation as a part of librarian's stewardship responsibilities'the preservation of the human record to ensure that the future generations know what we know'.

Libraries should strive to preserve almost everything that is communicated like computer conference logs, electronic serials, archived exchanges of electronic mail transmissions that may be appropriate for a library to acquire and preserve given sufficient interest on the part of the user community (Summerhill, 1991). The increased availability, use and popularity of e-resources over past two decades have affected remarkable changes in access to information. Archiving of digital information resources is more like an elephant in the middle of the room. Archiving requirements or permanent access provisions exist in licenses, but one of the most vexed concerns facing librarians is data storage. The following are some of the most famous e-resource preservation concerns.

Digitization

The library, archives and museum communities were quick to embrace digitization as a tool for building electronic collections. In 1997, Research Libraries Group (RLG), USA contracted with Cornell University, USA would develop a set of tools intended to assist participant organisations with digital imaging initiatives problems. Working groups were developed to establish best descriptive practices inside machine readable cataloguing (MARC) documents for high-quality digital images. This resulted into Guidelines for Digital Imaging, addressing issues such as selection of collection, preparation of materials, digital image capture, approaches to preservation metadata.

Digital Preservation

By early 1994, a great deal of information was already available digitally and even at its early

stages, the WWW started changing the modes of information delivery. By 1997, many libraries had acquired large amounts of digital materials through several different channels including publishers, distributors, legal deposit or transfer, donations and licensing access to online databases.

Preservation, storage and de-selection of print and e-resources should consider the changes in approach that developed over the last ten years. It conveys that every university library must make decisions appropriate to its own institution and no outside group can give specific criteria for the actual decisions to be made within the library. The second significant factor is given to the preservation analysis because it is an integral factor in the management of a collection.

There are a range of issues related to electronic material content collection management, such as content recognition, unrestricted internet access, continuous access to back issues, charging, licenses, billing of subscriptions, copyright and archival solutions, etc. It is necessary that university libraries pay more attention to the management of electronic content collection to develop themselves as professionals of the modern century.

9. CONCLUSION

Electronic collection management and electronic information services are in a period of rapid transition. Information organizations are undergoing redefinition. New forms of digital libraries and information collections are providing more information to more users more easily and on demand. These changes are being felt and responses are being made by information professionals throughout the world. The value of information is more appreciated than ever. Information collections are no longer geographically bound. Using Web access, it is possible to search the OPACs of many of the world's libraries and online resources from major primary and secondary publishers. Thus online and hybrid libraries have global reach. With global reach comes global responsibility. The technology used to manage the information changes allows for extensive innovation in information selection description, distribution, retrieval, and use. The new e-publishing environment requires new ways to assess information for the purpose of selection. There is a new array of information markup and cataloging systems for collection management that, in turn, supports an equally growing array of information services for information producers, consumers, and intermediaries.

The full story for electronic collection management and electronic information services has yet to be told. We are indeed living in interesting times and they will become more interesting still.

10. REFERENCES

1. Summerhill, C.A. (1991). Networked Based Electronic Resources in Scholarly Communication and Research. In C.W. Baoley, Jr., D. Rooks (Eds.), Public Access Computer Systems Reviews (pp 152-198). Washington, DC: American Psychological Association.

2. Shreeves, E. (1992). Between the visionaries and the luddites: Collection development and electronic resources in the humanities. Library Trends, 40(4), pp. 579-595.

3. Johnson, Peggy (2004). Fundamentals of Collection Development and Management. Chicago: American Library Association

4. Sivaraj, D. & Esmail, S. Mohamed (2007). Use of Internet by the students, faculty members and research scholars in Bannari Amman Institute of technology: An Analysis. Information studies, Vol. 13, No. 4, pp. 219-226.

5. Tenopir, C. (2000). Moving towards electronic journals. Library Journal, 125(2), pp. 36-38.

6. Gennaro, R.D (1973). Providing bibliographic services from machine readable databases: The library's role. Journal of Library Automation, 6(4), pp. 215-222

7. Kumar, Sanjeev & Sharma, Yogita (2010). Use of Electronic Resources at Punjab Agricultural University Library: A Study. IASLIC Bulletin, 54(4), pp. 238-243.

8. Law, Derek (1996).The organization of collection management in academic libraries. In Clare Jenkins & Mary Morley (Eds.), Collection Management in Academic Libraries (pp. 1). Bombay: Jaico Publishing House.

9. Lynch, C. A & Preston, C.M. (1990). Internet access to information resources. Annual Review of Information Science and Technology, 25, pp. 263-312.

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