CHAPTER – 4

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CHAPTER 4

COLLECTION DEVELOPMENT WITH REFERENCE TO ELECTRONIC RESOURCES: POLICIES AND PROCEDURES

4.0 Introduction

The mode of collection development of electronic resources is different from collection development in print and in particular policies and procedures to be adopted for meeting the budgetary provisions and financial accounting. The prevailing policies and procedures are primarily related to the print media. So there might be a need for evolving policies and procedures for acquiring electronic media as it cannot be taken for granted and set standards and ratio for the proportionate acquisition of both print and electronic media and it cannot be done randomly. The electronic resources especially in college libraries cannot replace textbooks which are prescribed as per the course curriculum and they can only act as supplementary to print media. It implies that there is a need for some ratio between print and electronic media. So there is a need for emphasizing this and on the implications of enhancing the performance and quality library and information services in academic libraries in general and college libraries in particular. In the context, the NAAC has set some guidelines and quality indicators in the context. So in this chapter some discussion is made on collection development with reference to electronic media in college libraries. In this context, NAAC guidelines and quality indicators suggested in this context will be
considered. It is desirable in this context to take note of the ICT developments that persist to build electronic resources in academic libraries. This emphasizes the fact that a reasonable measure of both electronic collection to bring balance between both print and electronic media is taken into consideration.

The present phase with all rapid developments in computers and communication technologies and growing emphasis on networking and resource sharing with increasing power of Internet and the World Wide Web seems to bring rapid change in the library collection profile. It is often called a paradigm shift in academic library collection building policies. This possibly can be viewed as a beginning of a new age for the profession where information professionals are at an intersection of using a dichotomy approach in collection building. As the LIS profession moves steadily from print to digital media, it has become necessary to develop techniques and mechanisms that facilitate users to effectively and efficiently discover relevant electronic information resources for the purposes of study, learning, teaching and research. This has been one of the major developments in Libraries and Information Systems in the past two decades in the rapid advent and spread of electronic information resources (EIRs). The change is basically of physical form where information content is increasingly being captured, processed, stored and disseminated in electronic form. The commonly available EIRs, namely the CD-ROMs, online databases, OPACs and the Internet and other networked information sources, are competing, and in some instances replacing the print-based information sources which have been in place
for centuries as the primary media for the storage and communication of recorded information content.

There are number of reviews on electronic collection development and some of them are quite relevant to the current study. The electronic resources collection development practices were stabilized and came to the forefront by 1990's with a continued emphasis on electronic formats, cooperative activities, fund allocation, and staffing and other aspects (Lehman and Spohen, 1993). There was a need felt for a single source guide to collection management and electronic media as per another source (Johnson, 1993) and implied there is a need to arrive at standard guidelines for collection building. Dominguez and Cyzyk called for cannon formation as mode for standardization of electronic collection development (Dominguez & Cyzyk, 1993). The electronic media led to commercial publishers entering into developing electronic media. The Silver Platter was the first to do so with a CD-ROM databases of medical literature and number of CD-ROM databases was part of services offered by National Centre for Science Information (NCSI). The then autonomous science information centre of UGC which started providing services to the academic community. This was in the early 1990s. The attempt to bring the Library and Information Science abstracts (LISA) in CD-ROM format was another effort.

The proliferation of commercialized electronic information products and the electronic resources available for over INTERNET require librarians to extend their traditional expertise to include knowledge of various resources said Zhou (Zhou, 1994) and acquisition skills using computer facilitated tools and
procedures (Otero, 1993). Gorman aptly advocated for a set of educational guidelines to professional concerns regarding collection development (Gorman, 1993), while Casserly and Hegg favoured in-service training for collection development personnel (Casserly & Hegg). The necessity of having Collection Development Manuals describing staff procedures and operations within libraries arose due to commercialization of electronic sources (Snow, 1993).

The amount and variety of information content in electronic form is growing (Hurd, 2000) and at the rate it is expanding, some believe that all information will eventually be electronically accessed. The pervasiveness of the transition to the electronic information environment can be observed best from the following comment: “Any reading of the world press, let alone of library and information sources, make it clear that the transition from traditional communication channels to digital channels dominates current discussion of information” (Meadow, 1999).

4.1 Impact of Electronic Information Resources on Academic Libraries

In this electronic era some of the users are rapidly creating their own virtual libraries and where everyone seems to be a web “expert”, it is only prudent for libraries in general and library professionals in particular to reexamine their roles and functions.

The proliferation of electronic information resources has required library professionals to assume greater responsibility for keeping pace with technology. As the library becomes the provider of information in a variety of formats, to meet the different needs of users, it is essential that library professionals must be
familiar with the new technology to access the information in new formats, particularly when that technology has been made available to users whom the librarian may very well need to assist. A librarian who fails to keep pace with emerging technologies will be unable to adequately serve the basic information needs of library users. Keeping pace with changing technology has become a matter of necessity rather than choice. Before the widespread availability of resources on the internet, it was often the case that the only individuals who were familiar with these resources were those with a keen interest in developing technologies, in contrast to those motivated out of necessity because of job requirements. The degree of knowledge and skill level required of librarians will be dictated by the needs and requirements of the institution, based on the kinds of information sources made available to support the curriculum and research. Currently, librarians must often be familiar with both print and electronic versions of resources to help and to serve the information needs of users (Felco, 1997).

**Users’ Expectations:** Users’ expectation is always changing. Yet users, especially research scholars need both traditional documents and electronic documents or old information and current information.

**Institutions responsibility:** Libraries, archives and other custodians have responsibility of conservation for their properties. So institutes planned for digital materials including their maintenance, preservation and distribution.

**Missions of parent institution:** First the object of libraries, archives and other custodians is to satisfy the user’s expectation and requirements. They should preserve all materials in all formats.
4.1.1 Advantages

Some of the generally accepted advantages of using electronic resources over print are:

1. Speed: It takes little time to browse or search, to extract information, to integrate that information into other material.

2. Functionality: an electronic version will allow the user to approach the publication and to analyse its content in new ways.

3. Multi-user access: The same copy of the article or page can be accessed by more than two users sitting on their desktops.

4. Content: Electronic information resources consist with the multimedia effect, i.e. images, video, audio and animation, which could not be replicated in print.

5. Storage: It is becoming very cheap to store data with the dramatic reduction in the costs of computer hardware.

6. Management: Electronic information resources can be managed effectively by appropriate software.

7. INTERNET based services like document delivery are cost effective and they are modes of services that provide quick access to information and thus eliminate the time-barrier. The kind of document delivery system cuts down the time lag to a substantial extent

8. Inter-operability: with the advent of such standards as Open URL we are increasingly witnessing the linking together of systems so that one item
within an electronic information resource can directly link to another elsewhere.

9. Re-Use: Electronic information resources can be repackaged and re-used in such systems as virtual learning environments, or resource/reading list tools.

4.1.2 Disadvantages

Though there are many advantages of electronic information resources, the following are some of the problems or constraints that crop up at the time of selecting, accessing, using and preservation of these resources, these are as follows:

1. Electronic formats are replacing hard copy but also adding significantly to the overall quantity of information available. Much of it comes at a high financial cost. The familiar factors of exercise quantity and budget restrictions demand that collection development principles continue to be applied and are devised to ensure effective use of electronic information resources.

2. An obvious challenge in developing countries is the problem of how to integrate electronic information resources with traditional forms (Amudhavalli, 1997).

3. Lack of ownership (only access) of resources to claim funds from the concerned authorities.
4. Many librarians report an increase in their workloads as more and different information resources are added with no increase in professional staff. They are spending more time on troubleshooting.

5. Though the electronic information resources are enabling information to be created, manipulated, disseminated and located with increasing ease, preserving access to the information poses a great challenge. Unless, preservation of digital information is actively taken, the information will become inaccessible due to changing technology platform and media instability.

6. In developing countries like India there is no support and cooperation of staff members and technical staff, which are very essential to provide effective service in a digital environment. As such, the library staff should not only be technically competent but should have user-friendly-approach.

7. Non-availability of selection tools. Nor is there a developed system of publication and distribution of electronic information resources (Gaunt, 1990).

8. Digital information does not remain stable for ever, even under favourable climate and temperature storage conditions. We simply do not know how long digital information will remain stable. Disks and tapes, on which electronic information is stored, will deteriorate over time (Ekman, 2000).

4.1.3 Prospects

The nature of access to information is changing rapidly and radically. The source of the change is well-known—it is the emergence of the internet and the
transformative character of the world wide web technology, which, quite
suddenly, has changed the ground rules for the production of and access to
scholarly communication. In contrast to the evolutionary trend of the past three
decades, today’s developments are revolutionary in their impact and significance
(Wilson, 1998).

Clearly there will be a shift away from many traditional library practices
that were once deemed as the core of library services and collections. Electronic
information resources have actually created more opportunities for users as well
as for the library profession. The challenge for librarians will be to learn to strike
a balance between collecting and providing access to print and electronic
information resources.

The next few years will see a decline in the printed subscription, but before
increased revenues from electronic or optical publications can be received,
sufficient to support the same publishing infrastructure as now, a period of low
profitability and margins will take place. Only a few traditional publishers will
take on the new challenges. Such a structural change in the industry has important
repercussions on the balance between print and new media.

The library of the future will be more a portal through which students and
faculty will access the vast information resources of the world and less a place
where information is kept. It will concentrate on access and knowledge
management rather than on physical ownership of materials. This new library
needs to bring together scholars and information resources without necessarily
bringing either to a physical building. The library of the future will have the
daunting mission of helping scholars discover what relevant information exists, anywhere in the world and in a variety of formats and media. Emphasis is towards excellent collection than large collection and developing effective means of gaining access to remote databases (Vohra, 2003).

4.1.4 What and Why Electronic Information Resources?

The meaning and what of electronic resources can be visualized from some of their definitions.

The electronic resources cover such things as full-text databases, electronic journals, image collections, multimedia products, collections of numerical data, and so forth. These may be delivered on CD-ROM, on tape, via internet, and so on. In this context then the term means;

“Any electronic product that delivers a collection of data, be it a text, numerical, graphical, or time based, as a commercially available resource” (Lee and Boyle, 2004).

In his preface Ravichandra Rao has stated that “the rapid development in IT and the emergence of INTERNET, a multitude of information sources are now available in electronic media. They include e-journals and other electronic publications–online databases, reference documents, newspapers, magazines etc., which are collected, referred as electronic sources of information, and libraries in no part of the world can afford to ignore these sources. He further states, ‘it is inevitable that in the next five to ten years, libraries may have to allocate considerable amount towards subscriptions to e-journals and other e-publications (Rao, 2000).
Electronic information resources are defined as being any publicly available information resources, which can be accessed via a personal computer. These include commercially produced resources such as bibliographic databases (accessed online or via CD-ROM), electronic journals and electronic books, as well as resources that have been made freely available via the internet, whether specially to Higher Education Institutions (through government funding) or to the public in general (www.roehampton.ac.uk/customer/erpolicy.pdf).

International Coalition of Library Consortia (1998) defines electronic information as “a broad term that encompasses abstracting and indexing services, electronic journals and other full text materials, the offering of information aggregators, article delivery services, etc. Electronic information can be accessed via remote networks from information providers or locality mounted by a consortium or one of its member libraries.

Now-a-days the users are looking for their needed information in an easier and faster way. E-resources have evolved due to the above-mentioned requirements. Electronic resource refers to the use of information communication technology in the production of publications and also in the electronic distribution of text via computer networks and terminals. Electronic information resources are playing an important and significant role in the creation, transmission and storage of information. Almost all electronic publication and important documents, which are published in print form, are now being made available in digital form.

Electronic information resources use different search tools which complement print-based resources in any traditional library. Electronic
information resources provide access to current information as these are often updated frequently. In this context the library automation and networking play a very important role. Through their various search techniques, electronic resources provide extensive links to explore additional resources or related content (Dadzie, 2005).

Today, libraries of all kinds have been spending larger and larger amount of their budgets to acquire or to provide access to electronic information resources directly from publishers and vendors. This is due to the fact that these resources have enabled libraries to improve services in a variety of ways. First, most electronic information resources can be equipped with powerful search-and-retrieval tools that allow users to perform literature searches more effectively and efficiently. Moreover, since most relevant electronic information resources are now available through the web, users can have desktop access 24x7 a day and the users can navigate the web portals of electronic information sources like the databases of abstracting journals. This can be now extended to the full text information like books and periodical articles and other resources. Nevertheless, it implies further that the emergence of e-books and e-journals followed by the widespread adoption and use of electronic mail, list servers and discussion groups to disseminate information quickly to large audiences (Suleta Devi and Sangeeta Devi, 2005).

The importance of electronic information resources in day-to-day lives continues to grow. Most of the institutes are giving preference to electronic information resources. With the initiatives like consortia systems, the importance
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of electronic information resources in distance learning and higher education programmes are extending. The question arises; why e-resources only? The following are some answers to this question:

❖ The publishers of print media are diverting their attention to electronic publishing due to some cost-effective reasons as well as keeping with the trends.

❖ Information explosion is the factor for the libraries to opt for electronic information resources for their easy management (handling).

❖ In case of retrospective search and the consulting of electronic information resources often faster than scanning printed indexes, especially when searching for larger volumes of these resources and they are more straightforward when adopting a combination of keyword searches.

❖ They open up the possibility of searching multiple files at one time.

❖ Electronic information resources can be printed and searches can be saved.

❖ They are updated more often than printed mediums.

4.2 Electronic Resources Collection Development

The widespread availability of electronic information resources, particularly those available on the Internet, will not diminish or eliminate the need for collection development. Collection development will begin to incorporate new challenges and concerns into acquisition process, such as site licensing, copyright issues, and access will be provided to various electronic information resources. In a competitive environment the library professionals have to concentrate on priorities and formats, and shrinking budgets, they must make difficult decisions.
regarding which resources are the most important and useful for their users, plus the necessary equipments to support them.

4.2.1 Collection Development Policy

Before the electronic revolution, Gardner (Gardner, 1981) published a book on library collection. In that book he has mentioned four basic criteria for selection viz. quality, library relevancy, aesthetic and technical aspects, and cost. But over the time, the meanings of some of these concepts have changed and the context in which they operate have changed drastically. Nevertheless, collection development, whatever form it may take, would still require policies that would govern the acquisition of both electronic resources and traditional forms of documents. In this context, probably, the obvious challenge would be the problem of how to integrate both. In order to fulfill the objectives, it becomes essential to lay down a sound collection development policy. Although the library may have sufficient funds to meet a variety of demands of its users, laying down of policy is a must to provide more satisfactory results, and thus fulfill the needs of users satisfactorily. Collection development has to be constantly guided by the requirements of institution. In this information age, practically it is not possible for any library to meet all the information needs of its users all the time. Most of the libraries are still predominantly document oriented. It is only in recent years that publications in the electronic media have become available in the library.

The main criteria for electronic resources collection building starts with format selection. Format selection is a complex process. Ultimately, selection decisions will vary depending on a library's specific needs as outlined by its
mission statement and collection development policy. Thus, library professionals should determine some of these following options while selecting the formats. So some guidelines on various aspects of policies related to selection of electronic resources in academic libraries are presented here that would help in collection building strategy.

a) Format Selection Analysis

In determining the optional format for a particular resource, librarians should first consult their organization's collection development policies for selection guidelines. A collection development policy is a fluid document, it must evolve as new formats are introduced as well as reflect the changing needs of its users. A Collection Development Policy provides general and specific format selection criteria (e.g. print, microforms, internet resources, online databases, CD-ROMs, floppy disks, and e-books). A well written Collection Development Policy typically identifies subject areas in which it may be preferable to have one format over another. The physical form of documents has changed drastically as a result of recent developments in micrographic technology. Microforms such as microfiche, audio visual materials, CD-ROMS, floppies, web resources are the means to miniaturize and substitute the large bulk and conventional documents available in libraries. Acquisition of microform/electronic version is a method of solving space problem in libraries because the trends in physical forms of documents are making the library paperless. By the impact of information technology it is possible to find several formats in the libraries.
b) Functionality and Formats

One of the primary reasons libraries subscribe to electronic information resources is functionality. Online databases can provide support in ways that print and microform cannot duplicate. Online resources are generally easier to navigate; users can jump from one page to another or one section to other with a simple click of the mouse instead of underlying the more labour intensive method of searching through various print volumes to arrive at a particular point (Hogan, 1998).

c) Longevity

An important and unavoidable factor in evaluating formats is determining longevity. Libraries must balance the needs of current users with those of future generations. They have the responsibility of preserving information so that documents will still be available even after a publisher is out of business or a book is out of print. Longevity is judged by several factors like the ability of the product to withstand ordinary use within a library setting, the continuing availability of the document in the foreseeable future, and the needs of primary users.

d) The Essential Issue: Cost

New technologies, though welcomed at first for the innovation that they allow, are also posing challenges to library management in general and to library budgets in particular.

Price is both the simplest and trickiest factor. It is simple because, for most libraries, their budget will determine whether or not to go for purchase. Not only
do publishers have different pricing structures based on the type of license, but they can have different pricing schemes based on the type or size of library. Publishers can offer discounts if a library purchases titles in multiple formats, or if it purchases a certain cluster/bundle of products. Although these types of deals are offered with print products, especially volume discounts for large purchases, electronic pricing varies more widely than print pricing (Kevil, 1997).

It is important to see whether the electronic publications are economical in relation to print version. It costs heavily in the initial stages and even as librarians stand at the brink of powerful communication and information revolution, there are limitations on how much hardware and software can be acquired to take full advantage of these electronic sources (Goehner, 1992).

In terms of cost, questions may be raised such as which media cost more? Can the initial purchase be overlooked in consideration of potential long-term benefits? Which resource will be most cost effective in the long run? Ongoing costs such as subscription and maintenance must be examined. Questions may also be raised: which is easier to use? Which will be offered to the majority of patrons? What is the potential for use? Is there a demand for this type of resource?

The above are some of the policy issues in the selection and collection building process of electronic information sources and a policy document in this context has to be created for the general use in the academic library environment.

4.3 Criteria for Selection of Electronic Information Resources

The collection forms the basis of library services in any type of library. The selection of electronic resources therefore must be given due consideration as to
the tools available in this regard. In developing electronic resources for the library it is necessary that the library staff responsible for collection development should have the knowledge of the resources and in this context the staff should scan every possible thing which has relevance to the library needs. To identify the different types of documents the librarian has to refer to the selection tools.

The selection criteria are applied to the electronic information resources as are similar to those applied to print. However in addition to standard selection criteria, the following criteria specific to electronic information resources should be considered:

- Wider access and greater flexibility in searching;
- Availability in a multiplicity of formats (e.g. ASCII, PDF, HTML, SGML, etc.);
- Electronic information resources should be available before or not later than the publications of the article in its print format;
- User friendliness;
- Publisher/aggregators reliability and customer support;
- Increased functionality;
- Enhanced access to remote users;
- Time availability;
- Hardware and software requirements should be taken into consideration;
A trial period is potentially available for examining the utility and
the value of the resource before a final commitment or order is made
with the publisher/vendor;

- The long term viability of resources for preservation purposes;
- The replacement policy of the publisher in the event of damage;
- The necessary amount of staff time to provide access, training and
  assistance;
- The long term usability of a resource's data (for a specific period of
time); and
- Service Implications (Collection Management Team, 1998).

4.3.1 Evaluation Criteria for Electronic Information Resources

The evaluation of collection is the most desirable and a very important to
assess the usefulness of information resources. There are several techniques
employed in this context and some of them are such as user information need
studies, user studies and the analysis of different community of users and their
needs. Such studies have to be conducted at regular frequencies to know the
requirement of users as well as significance of collection. In case of electronic
resource, the system software itself provides access statistics and user
information. The software can collect the information about user directly or
indirectly and pass the details to log files. Based on these statistics usefulness of a
particular thing can be made. It will help the librarian whether to maintain
collection in the library or discard it from the library stock. It will help the library to maintain the livestock.

Perhaps nothing is more important and crucial than evaluating information in electronic format. Whatever be the methods adopted, one should always keep in mind the ultimate objective or purpose of evaluation to satisfy the needs of users (Seetharama, 1997).

Many of the criteria applied to print resources (such as authority, currency, intended audience, ease of use, and accuracy) are appropriate for electronic resources. However, there are unique selection issues to consider for electronic resources (Norman, 1997). When selecting electronic resources, the extensiveness of the content, type of access points, quality of technical support, method of pricing, and conditions of licensing agreements should be considered.

4.3.2 Content Considerations

While it is often assumed that electronic versions of print resources are identical, there can be a number of important differences in what is included in an electronic version. Some of the issues to consider when considering purchasing or leasing an electronic information resource are:

- Does the electronic version have retrospective data?
- How complete is the electronic database, especially when compared to its print counterpart? Some electronic sources do not include information to the same extent that print resources do.
- Does the electronic resource offer any special features that are not available in the print version? For example, most electronic resources offer multiple
access points to the data that are not possible with print resources and some electronic resources can provide full-text.

- How often is the information updated? While it is generally assumed that electronic resources are more up-to-date than print sources, this is not always the case (especially CD-ROMs). Online databases are often more current than print versions (Smith, 1997).

4.3.3 Access Considerations

While evaluating electronic resources, it is important to consider how these resources will be accessed and what the implications for other library services are. For example, it is common for libraries that acquire a CD-ROM version of an index to experience an increase in the number of interlibrary loan requests for periodical titles they do not own. Other access issues to consider are:

- How many users will the electronic resource accommodate at one time? Will the resource be available to an individual on a single computer terminal, or to remote users from their home or offices? Your decision on what kind of access to provide will depend on the amount of demand you expect for the resource.

- How can the content of the electronic database be accessed? What types of search options does the resource provide? The user interface and search strategies vary widely from one product to another.

4.3.4 Technical Support Considerations

Unlike print resources, which require little training, electronic resources can be intimidating and difficult to use. Thus, for electronic resources to be
successfully used, training and technical support need to be provided. Technical support issues are:

- How much training will library personnel need to feel comfortable using the product and how much time will it take to train users?
- How detailed are the instructions that come with the product? Are there online help screens?
- How reliable is the producer? Do new versions mean reconfiguration of the system or network? Will library employees and users have to be retained to use the latest version of a product?
- Is the system prone to technical problems? Is the product compatible with existing hardware? Is the publisher's technical support helpful and easily accessible when needed? (http://www.dlapr.lib.az.us/cdt/slrer.htm)

4.3.5 Cost Considerations

Cost considerations are different for electronic resources than for books. While books are usually a one-time purchase, most electronic resources represent an ongoing commitment and cost. Some products are leased rather than purchased, in which case the library does not "own" the product but makes it available to users until the end of the lease. If products (especially CD-ROMs) are updated regularly, the lease may require the library to turn in the old edition upon receipt of the latest version. One of the difficulties in getting the best deal for the library is that pricing plans are not standardized; this makes it hard to compare prices offered by competing vendors for similar electronic products.
In addition to requiring computers and other hardware to operate, electronic resources are subject to other costs that are often not considered (Stolt, 1996), such as system failures, loss of information due to power fluctuations, user errors that cause downtime, tempering by hackers, viruses, theft, and cost for maintenance and security measures. Some other cost considerations include:

- How much do updates to the product cost?
- What type of licensing agreement will you make? Will you pay to place the product on one computer, multiple computers, or a local area network? Pricing structures vary significantly depending on the type of license you arrange. A license for one computer will be considerably less expensive than a license for networked access.
- What are your expected printing costs? Will you charge users for printing to help compensate for these expenses?

4.4 Management of Technology Change Solutions

4.4.1 Migration

It is the periodic transfer of digital materials from one hardware / software configuration to another, or from one generation of computer technology to the next, is the current favorites strategy for preserving electronic data. Media refreshing is a part of migration, but migration involves the transfer of entire digital environment, not just the physical storage medium. Migration is necessary every time the operating environment, including the hardware and the software changes.
Migration strategies vary with the type of digital data being migrated and are still in the process of development. Migration strategies for large databases of digital data, such as census data, are already well-established, but strategies for complex digital objects such as multimedia documents are not. Needed standards, defining conversion, quality, image compression, display and metadata, for example, are still being developed by various digital communities, and other issues, such as non-proprietary equipment, backward compatibility of systems and system life expectancy are still being addressed.

4.4.2 Emulation

The third digital preservation option being explored is emulation, or the development of software that performs the functions of obsolete hardware and other software. This strategy proposes that digital documents be stored in their original forms, along with the original software in which they were created, and that additional software be created to permit a more advanced computer at some future time to mimic the obsolete hardware.

4.5 NAAC Standards for Libraries of Affiliated Colleges

Since the age of water libraries, importance is attached to establish and maintain standards in libraries, as the imposition of standards is believed to be the basic step in promoting quality of library and information services. In the recent years academicians are giving more importance to library standards and to reflect this importance, a set of new standards is issued by the National Assessment and
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Accreditation Council (NAAC) to ensure the quality of services in academic libraries.

There is considerable literature, theories and propositions on standards with a slant towards information provisions to libraries in the academic setting. Several recent initiatives and development programmes offer due importance and focus on providing information and communication technology. An ICT system is a major effort in bridging the gap between knowledge-have and knowledge have-not. This is because the ability to use information resides in capacity and capability to create knowledge from such information. For ICT to be beneficial, it is imperative that we develop knowledge process capability at individual and institution levels. The recent developments in ICT systems have influenced the information services in the university libraries considerably. To promote the quality of information services and to keep the libraries global, it becomes mandatory to introduce the ICT enabled services in the Indian university libraries.

4.5.1 What Do We Mean by “Standards”?

The term 'standards' is difficult to define or even it is impossible to fix a concrete boundary for it. The term will actually refer to the qualities of 'good'; and, no doubt, to the difficulties involved in reaching agreement about what these qualities are. In many instances, the term 'standard' implies that there is need for minimum set of parameters to march towards quality and uniformity. It is reasonable to expect that maintaining the agreed 'standard' will ensure to achieve quality which ultimately helps to reach the goal of the institution.
4.5.2 Standards in Library and Information Services

The need for standards is interpreted differently by people working at organizations that are trying to maximize the investment in the networked services by ensuring that they integrate effectively in a larger universe of networked services and information. The organization building a digital archive is one example, another is the library building an online database (whether searching aids or video) that can be searched personally by individuals and automatically by other INTERNET services. For online information processing, storage and retrieval, standards such as meta data are emerging. Equally important, it will be trying to decide how, to whom, and under what circumstances the electronic information will be distributed. Among the users will be persons who create and then deposit the information content, as well as persons who may wish to use the archived information content in the future.

The second change is a shift in the way libraries develop and adopt standards. Increasingly, they are claiming adherence to practices that are already developed and endorsed by competent authority, but preferably by several, peer institutions. The demand for library standards effectively contributes in the accreditation process.

International standards ISO 11620 provide libraries with a step-by-step guide to performance indications that will give library manpower for clear view of how the library is performing. Many countries based on the ISO 11620 have developed their customized standards.
4.5.3 Electronic Services and their Impact on Library Standards

Since the last decade, increasingly the libraries depend on electronic systems and network for offering information services. Most of the Western university libraries now provide computer access to almost all students and teachers. Even in a few libraries of the developing countries, computer-based services are available to all students and all users are ensured of the total electronic services.

Electronic resources are more used as learning tools and their use is widespread in recent years. Students learn more quickly and with the greater retention when learning with the aid of electronic resources, and their attitudes towards education and learning are positively affected by electronic resource use. Faculty members can draw information pertaining to curriculum, teaching and research in a more meaningful as well as effective way.

Thus electronic information services are now widely implemented in the libraries and the current discussions are on how to draw comprehensive standards for electronic services to libraries. There are efforts at various levels on building electronic services in libraries. There are many suggestions and discussions at the global level on electronic library standards. For example, a major standard is the EQUINOX project. The EQUINOX project has suggested the following performance indicators for electronic library services. Some of the crucial elements of the major library standards are:

- Percentage of target population reached by electronic library services.
- No. of log-ins to electronic library services per capita per month.
• No. of remote log-ins to electronic library service per capita per month.
• No. of electronic documents delivered to electronic library service.
• Cost per log-in per electronic library service.
• Cost per electronic document delivered per electronic library service.
• Reference enquiries submitted electronically per capita per month.
• Library computer work station use rate.
• No. of library computer work station per capita.
• Library computer work station house used per capita per month.
• Rejected log-ins as a percentage of total log-ins.
• Systems availability.
• Mean working time for access to library computer work stations.
• IT expenditure as a percentage of total library expenditure.

The above is only a part of the library standards regulated by the ACRL. They have given a detailed list of standards and these standards are widely implemented in reality. In India, even we have not reached this state on library standards. The initiatives now undertaken by the NAAC will in future pave the way to enlarge the library standards into a comprehensive set of standards.

4.5.4 NAAC Standards

Standards in libraries are being compiled, implemented and updated to reflect the current developments in academic libraries. The National Assessment and Accreditation Council (NAAC) has initially developed and recommended a set of indicators for assessing the academic libraries. However, the progress in
library and information professions necessitated the NAAC to develop a set of
new indicators to reflect the developments. Accordingly the NAAC has worked
indepth to arrive at a set of indicators for university and college libraries. These
guidelines are recently published by the NAAC.

We have discussed briefly the NAAC indicators by considering the
components of best practices. We also limit our discussion to the modern
component, the Information and Communication Technologies (ICT). Given the
enormous and growing importance of technology in people’s everyday lives, the
expert committee established by the NAAC sets out to frame the library standards.

Technology is of increasing importance in people’s everyday lives and that
presence will most certainly increases in the coming years. No longer relegated to
specialised work place settings, information and communication technologies
have become increasingly common in community settings, particularly at
universities and colleges. Whether looking at a book on a computerized card
catalogue at the library, making a search from an automated information retrieval
system or accessing database in online, everyday activities have been transformed
by ICT. As a result, the notion of a literate populace must be expanded to include
the technology-based skills and abilities that will enable students and teachers to
function in an electronic information world.

We have specified the ICT enabled component in the NAAC parameters
and offer description of them in the following passages.
4.6 Management of Electronic Resources

The factors relating to the management of electronic resources are very important as the format, the mode of access and storage of them drastically vary from their print counterparts. In this section, some important factors that need to be considered in the management of electronic resources in the college libraries are presented and discussed. It is quite obvious that collection and management of electronic information resources is more complex than collecting print media. The complexities are expressed as barriers to local collection of electronic information resources as they are not easily traced and available. Technology changes especially the hardware and software limitations are very clear at many institutions. There is often a lack of financial resources to cover the additional expense of managing an electronic collection alongside a print collection. A large number of skilled personnel are essential for any electronic project to work. Another major impediment is the number and incompatibility of integrated library systems. But there is every hope that all these barriers can be overcome in time.

a) ICT Infrastructure and Know-how

One of the basic infrastructures for the use and management of electronic resources is to build functionality of the library in a networked environment. The present technology especially is centred around the bandwidth of internet access and subscription. The organisation and access of e-resources, etc. are important factors in delivery of digital information services. Creation of environment for better information resources access is the responsibility of academic institutions.
b) Collection and Services provided to Users Collection

"The library is required to provide varied, authoritative and up-to-date resources that support its mission and the needs of its users. Resources may be provided on site or from remote storage locations, on the main campus and/or at off-campus locations. Moreover, resources may be in a variety of formats, including print or hardcopy, online electronic text or images and other media. A university/autonomous college to contain the quantity of resources as prescribed by government, UGC/AICTE and other governing bodies. They may generally be in the form of books, textbooks, standard reference, current journals, back volumes, e-resources such as full text/secondary databases, CDs/DVDs, AV materials, etc. The library may maintain a special collection of national and international agencies (World Bank, UNO, EU, UGC, DST, etc.), government documents, book-bank, rare materials, collection for civil service/competitive exams, etc. Even with limited budget, the library may explore ways, such as open access sources to provide quality resources in the most efficient manpower possible. Collection currency and vitality may be maintained with judicious weeding-out policies.

The modern library is moving from the traditional print to the electronic and 24x7 services. In western universities, the databases and resources are available in remote location through off-campus access. Although the off-campus access is a modern concept to Indian environment, the NAAC initiative will help the Indian university libraries to resort to off-campus access. The above guideline also leads the Indian libraries to be really global as the NAAC expects the Indian
university libraries to develop special collections of international institutions such as EC, World Bank etc.

c) Budget

There should be proportionate growth in library budget in the last five years. Budget for different documents such as books, journals and other resources and ICT infrastructure are to be defined as to the scope of the institute. Source of income other than state, central and UGC grants may be identified for enhancing the collection and services.

- Ratio of library books to number of students enrolled.
- Number of log-in’s into e-library services/e-documents delivered per month (Efforts made towards developing on-campus electronic environment and encouraging e-deliveries may be mentioned).
- Network of academic libraries under the university’s jurisdiction.
- Membership of library networks (INFLIBNET/DELNET) and consortia (UGC INFONET/INDEST) or any other.

The budget component has specified the influence of ICTs and electronic services for the academic libraries. The most innovative standards in above NAAC parameters, is the usage which is available through log analysis. The NAAC outlined the importance of electronic information deliveries which we hope that university libraries will become truly global soon.
4.7 **Best Practices for University/Autonomous College Libraries**

In the library contest, the best practices may be viewed as one that enhance user satisfaction, contributing to full realization of one’s academic potential. Listed below is a suggestive set of best practices.

NAAC has identified and suggested 16 best practices. Out of the 16 best practices the following are related to ICT.

1. Information literacy programs.
2. Creation of digital repositories.
3. Development of a website/webpage for the library including all the services and necessary information.
4. Establishing linkage with other libraries and avail free/nominal fees services.
5. Initiatives for research projects/turn key projects from the library.
6. Development of electronic environment on the campus and encouragement to e-deliveries.
7. Developing linkage with the functional units of the universities like
   - Information center
   - Computer center
   - Department of computer science
   - Students welfare directorate/training and placement cell.

4.7.1 **Building a Network of College Libraries under the Aegis of University**

The above standards and the brief descriptions are limited to the standards based on the parameter of ICT. Hence, the academic community in India expects that through the introduction of new NAAC standards, the university libraries in
India will be modernized totally soon. By the application of NAAC standards, the university libraries will resort to new libraries on par with the western libraries in all respects. We can expect its total revamping of the academic system.

4.7.2 Guidelines on Quality Indicators in Library and Information Services: Universities/Autonomous College

Increasingly, accreditation activity is gaining momentum in our country as people and educational institutions have come to realize that quality enhancement is essential for the institutions and the country. In the process of institutional accreditation, libraries have a crucial role. The services of the libraries have been expanding as they contribute significantly to the learning process, particularly, the e-learning process.

In the accreditation process, evaluation of libraries is an essential component, where the collection, services and their outreaching capacity are monitored. In the recent past, significant developments have been reported in library and information services and the libraries are shouldering newer responsibilities in higher education. Hence, the standards for assessing the quality of library services need to be updated. It is true that libraries largely support learning, teaching and research processes in institutions. So far, mostly, the classroom has, by and large, been the primary source of learning, with library accorded a supplementary status. In time ahead, one can foresee a role reversal, and indeed, in the increasingly learner-centric educational effort, one may already witness the library becoming the primary learning resource in many instances,
with conventional classroom teaching playing mainly a facilitating role. In the case of Open Distance Learning (ODL), this has always been the case.

It is in this backdrop, that NAAC has developed a set of objective indicators to facilitate assessment of the library and information services of academic institutions. The guidelines are derived from an understanding of the global developments in the activities and services of libraries, the national environment, and the outcome of a recent national-level workshop held at the NAAC, in which college and university librarians and library scholars from across the country had participated. The parameters are defined by considering certain factors such as age of the institutions, courses offered by them, and so on. The institutions are grouped into two broad categories; one, the university-level institutors (these include universities, deemed-to-be universities, autonomous colleges, and postgraduate colleges) and the other, the colleges (affiliated/constituent colleges). A set of indicators for university/autonomous college libraries is presented in the following pages.

A. Management of Library and Information Services

In universities (and in large colleges as well), the library system normally consists of a central university library and branch/department libraries. The large campus environment often defines the use of the library in terms of the strength and size of the text and research collection. The central library supports the general information requirements of the users whereas the department libraries cater to the specific subject needs of the users, both for study and research.
considering a set of minimum parameters listed below would help to ensure quality in library systems of university and autonomous colleges.

a. **Number of days the library is kept open**

   This is to help in knowing whether the library is kept open on Saturdays, Sundays and other holidays so as to facilitate use by students and faculty.

b. **Working hours**

   This parameter refers to opening and closing hours of the library, whether library opens before the institutions’ opening time and closes after the closing time so that readers have an opportunity to use the library without disturbance to their academic schedule.

c. **Library Advisory Committee**

   The formation of the library committee with an equal representation by faculty and students, and the role of the committee and its functions in developing the library services are to be well defined.

d. **Manpower development**

   Qualifications and experience of the librarian and the library staff should be on par with that of the academic staff and should fulfill the norms prescribed by UGC/AICTE/NCTE/ICMR etc. for guaranteeing a professional approach in delivering information services. Training programs and professional involvement of library professionals need to be encouraged. Total qualified and semi-skilled manpower and the ratio
between number of users and collection need to be maintained as per UGC/AICTE and government norms for promoting a better library environment.

e. Infrastructure of the Library

The managements may look into the aspect of location of the library, to see whether the library has a place of its own with proper planning and organization of space, proper furniture, necessary quantity and quality of reading chairs, tables, display racks, magazine racks, etc. The minimum carpet area for service counters and other sections of the library as prescribed by government and other governing bodies are to be taken note of along with proper ventilation, fans, and water and toilet facilities. Fixing of notice boards, research cubicles for scholars/teachers, providing uninterrupted power supply systems (UPS, generator, etc.,) along with due attention to overall building maintenance and cleanliness also need consideration.

f. ICT Infrastructure and Know-how

Qualification and computer facilities, systems for enabling e-library services, etc. need to be determined, taking into account the total number of users, type of users and programs offered. The library should have networking facility and be a part of institutional network, with fully implemented automation. The bandwidth of internet access and
subscription, organization and access of e-resources, etc. are important factors in the transmission of digital information services.

g. Overall policy of the Institution on Library

The library should have an approved policy on the collection development support, introduction of new services, support in terms of fund, annual increase of budget, binding procedure, removal of obsolete books, and policy on loss of books and an ongoing commitment of the institution in deputing library professionals for continuing and further education.

h. Budget

There should be a proportionate growth in the library budget. Budget for different documents such as books, journals and other resources and ICT infrastructure are to be defined as to the scope of the institute. Source of income other than state, central and UGC grants may be identified for enhancing the collection and services.

B. Collection and Services Provided to Users

i) Collection

The library is required to provide varied, authoritative and up-to-date resources that support its mission and the needs of its users. Resources may be provided on site or from remote storage locations, on the main campus and/or at off-campus location. Moreover, resources may be in a variety of formats, including print or hard copy, online electronic text or images, and other media. A
university autonomous college needs to contain the quantity of resources as prescribed by the government, UGC/AICTE and other governing bodies. They may generally be in the form of books, text books, standard reference, current journals which include national, international and peer reviewed journals, back volumes, e-resources such as full text/secondary databases, CDs/DVDs, AV materials, etc. The library may maintain a special collection of national and international agencies (World Bank, UNO, EU, UGC, DST, etc.), government documents, book bank, rare materials, collections for civil services/competetitive exams, etc. Even with limited budget, the library may explore ways, such as open access sources to provide quality resources in the most efficient manner possible. Collection currency and strength may be maintained through judicious weeding-out policies.

ii) Services

The library has a key role in supporting the academic activities of the institutions by establishing, and promoting the library and information services, both quantitatively and qualitatively. The library offers a wide range of services from reference to electronic information services. University and autonomous college libraries may answer the following basic questions while ensuring the appropriate services.

1. Does the library provide the following facilities/services to the students?
2. Publication and research support services
3. Information display and notification
4. Bibliographic compilation
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5. ILL/ resource sharing

6. Reprographic facilities

7. Book bank

8. User orientation

9. Computers

10. OPAC/indexing services

11. Internet

12. Digital library services

13. Any other.

1. Ratio of library books to number of students enrolled

2. Number of log-in’s into the e-library services/e-documents delivered per month (Efforts made towards developing on-campus electronic environment and encouraging e-deliveries may be mentioned)

3. Network of academic libraries under university’s jurisdiction

4. Membership of library networks (INFLIBNET/ DELNET) and consortia (UGC INFONET/INDEST) or any other.

C). Extent of the Use of Services

Performance evaluation of university and autonomous college libraries needs to be carried out at regular intervals in order to enhance the quality and its sustenance. Normally, the evaluation can be made on the compilation of statistics based on use. The following parameters would help in assessing the extent of use of library and its services.
Chapter – 4: Collection Development with reference to electronic resources: Policies and Procedures

I a) Average number of books issued/returned per day.

b) Number of reference enquires (users) on an average per month (percentage may be specified)

c) Number of services delivered per user per month

d) Average number of users who visited/documents consulted per month.

II Compiling the information on number of log-ins into e-library services/e-documents delivered per month.

D. Best Practices for University/ Autonomous College Libraries

In the library context, a best practice may be viewed as one that enhances user satisfaction contributing to full realization of one’s academic potential. Listed below is suggestive set of best practices.

5. Library brochure/dairies/information packs.


7. A feedback from stakeholders through scientifically designed and analyzed questionnaire, at least twice a year.

8. Compiling and displaying of student/teacher attendance statistics (graphic) on the notice boards of the library as well as departments.

9. Communication of current awareness to different user groups.

10. Information literacy programs – beginning of the academic year with a general presentation – periodically for need based groups -teaching library programs

12. Displaying new arrivals of books/journals and circulating a list to different departments that use the library.

13. Suggestion box and timely response.

14. Development of a website/web page for the library including all the services and necessary information.

15. Establishing linkage with other libraries and avail free/nominal fee services.

16. Initiatives for research projects/turn key projects from the library.

17. Development of electronic environment on the campus and encouragement to e-deliveries.

18. Developing linkage with the functional units of the universities, information center-computer center -- departments of computers science -- student welfare directorate/training and placement cell.

15 Conducting exhibitions/demonstrations/lectures on Current Issues.

16 Building a network of college libraries under the aegis of the university
References


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