Redefining Libraries to Create
Next Generation Libraries

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## PREFACE

[www.alibnet.org](http://www.alibnet.org)
Each year ADINET celebrates the birth anniversary of Dr. S. R. Ranganathan. Besides being the Father of Library & Information Science, he was an educator, mathematician and a philosopher. As part of the celebration, a seminar is held on an important current topic. The seminar helps the Library & Information Science professionals to know about the latest Information and Communication Technology used in libraries, to interact with each other and to discuss important current developments.

The theme of this year’s Seminar is “Redefining Libraries to Create Next Generation Libraries”.

The sub-themes are:
Enhancing Skills of Librarians
Managing e-resources/Digital Libraries
Innovative Library Services
Use of Social Media in Libraries

It is said that the only thing constant is change. Libraries have changed, and are still changing rapidly. New technologies have changed the way work is being done in libraries. There are new challenges and also new opportunities. This networked world has enabled librarians to work together, to share resources and also to reach out to their users.

It is important to periodically reflect on the work being done in libraries, its aims and its mission. Librarianship has always been about helping users, about finding resources which enable them to learn, to facilitate knowledge and thereby empower them to take better decisions.

It is imperative to enhance skills of librarians, as we cannot have good libraries, unless and until we have good Librarians, properly educated, having various skills and a proper and positive attitude. Librarians also need to have various abilities, such as ability to embrace change, to troubleshoot new technologies, to evaluate needs of all stakeholders, and to market library services and so on.

Owing to the availability of digital technology and internet connectivity, libraries now have material in both print and digital form. E-resources and Digital Libraries have the ability to enhance access to information and knowledge and also bridge barriers of time and space. They have an immense impact on education and therefore on learning.

Libraries, especially small libraries need to focus on providing more innovative library services even with the available limited resources.

Social Media is an online platform which is being used by librarians. It allows users to link to each other and contribute and share content and or comments. Social Media sites like Facebook, LinkedIn, Google+ and Twitter are being used in the library to connect with a library audience for reference, library instruction, outreach and marketing.

By revamping traditional libraries to create modern libraries, librarians can fulfil the mission of libraries which is to empower society by providing information. In today’s Web 2.0 world the librarian is more & more the key to information in a digital format. Librarians are indeed the ultimate Search Engines!
ADINET is a Network of Libraries and Information Centers in Gujarat. It was established in 1994 with an initial grant for a few years from National Information System for Science and Technology (NISSAT), Department of Science and Industrial Research, Government of India. It caters to all types of Libraries: school, college, universities, institutional libraries and even public libraries. Hence, access is provided to hundreds of libraries, librarians and organizations through the ADINET Network.

The main vision of ADINET is to join Libraries, to enable them to achieve what cannot be done by one library alone. This will help them to harness their limited resources and collective strengths so that Libraries can continue to play their historic role as society’s portal to information. ADINET therefore promotes sharing of resources and disseminates information among Libraries by networking them.

Objectives

- To integrate the economic, scientific and technical information systems into an effective network
- To co-ordinate with other regional and national networks, Libraries & Information Centers by providing links especially to OPAC’s of Libraries. This will provide seamless connection & universal electronic access to the collective collection of Libraries, together with web-based material.
- To provide Library Consultancy Services like creation of Website, Institutional Repositories, etc. This will be of great help to small libraries.
- To prepare products & services for the Library profession.
- To help Library & Information Center users & also individuals who practice different professions in getting specialized information of their interest.

Services & Activities

a) ADINET is maintaining a Database of over 5500 Current Periodicals received by over 140 libraries in & around Ahmedabad.
b) Document Delivery & Inter-library Loan:- ADINET enables users to locate periodicals/books/reports, so that these can be borrowed on inter-library loan.
c) Content Pages of Library & Information Science journals are regularly supplied to all members. Full texts of selected articles from content pages are supplied.
d) Supply of Photocopies from journals published by more than 19 major publishers which cover over five thousand journals.
e) Manpower development programs.
f) Completion of backlog of any work of library & information centers.
g) Digitization work.
h) Quarterly Seminars on Current Trends in Libraries
i) Ranganathan’s Day celebration:- Each year ADINET celebrates the birth anniversary of Dr.S.R.Ranganathan as Librarians’ Day, by conducting a Seminar on an important current topic.
j) ADINET Website has been redesigned with vital links to important databases:-
   1. Directory of Libraries & Information Centers
   2. Union List of 5540 Journal Titles
   3. Directory of Librarians
   4. Open Access Resources
   5. CUCOLIS
   6. ADINET Newsletters
   7. Power Point Presentations of Lectures and Seminars

Publications of ADINET

www.alibnet.org
1. ADINET Newsletter is published quarterly.
4. CCurrent Contents for Library and Information Science (CUCOLIS)
5. Book of Papers of Seminars held each year.
6. Course Materials of Workshops & Training Programs

Membership of ADINET

All Institutions, Libraries and Information Centers, LIS professionals and students are invited to become members of ADINET and avail professional services. Membership fees are:-
1. Institutional Member: Rs. 10,000/-
2. Associate Institutional Member Rs. 5,000/-
3. Associate Academic Member: (Colleges and Schools) Rs. 2,000/-
4. Individual Member: Life Membership Rs. 1,200/-

Administration of ADINET

The apex body of ADINET is the Governing Council which is headed by a Chairman. The day to day administration of ADINET is looked after by an Executive Committee, which consists of Chairman, Director and Secretary.

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for latest news & activities of ADINET
Professional Competencies and Skills for Better, Effective and Efficient Library and Information Services

Manish V. Pandya* & Mukesh Kumar Mishra**

Abstract

This paper discusses the role and importance of competent Library and Information Science (LIS) professionals for the library users in meeting their information needs. LIS professionals are required to develop certain professional competencies and skills in order to provide better, effective and efficient library & information services. By providing a definition of ‘professional competence’ and qualities this article narrates the required core professional competencies and skills. Librarians ought to have skills like technical skills, presentation skills, communication skills, user services skills, evaluation and assessment skills, management skills, knowledge of policies, procedures, issues and standards, commitment to life-long learning and other skills.

1. Introduction

Today library and information science professionals are given titles such as “Librarians”, “Information Professionals”, “Information Intermediaries”, “Library Managers”, “Information facilitators,”, “Information Providers”, “Cybrarians”, “Knowledge bankers” and there are many more. Thus, LIS professionals are wearing various hats, trying to cope-up with ever changing landscapes of printed as well electronic resources, information utilization and multifaceted, multidimensional, multidirectional and exponential growth of information itself. But, there is not only “Information Explosion”, Information and Communication Technology (ICT) has also ‘invaded’ in a big way and led to easy access to information, creating multiple access point, challenging the utility of printed resources as the only information tool, and ultimately challenging the libraries as the only information / knowledge institutes and implicitly librarians as the only information providers.

Human and economic resources are the assets with a calculable return on their investment. Information resources provide strategic value to information. Managing information is a prerequisite for becoming a better library and information professional. Digital technology, the internet, and ICT, all drive the entire information world for a better and well-informed society. These days successful professionals are competitive, fast paced, quick-to-deliver, not only at local level but also at global level in providing LIS services. LIS professionals have to have the required broad spectrum of information and knowledge management skills.

Kyrillidou and Persson (2005), have summed up the “Five Most Desired Items Overall” by the library users which are as follows:

- Making electronic resources accessible from my home and office
- Easy-to-use access tools that allow me to find things on my own
- A library web site enabling me to locate information on my own
- Making information easily accessible for independent use
- Print and/or electronic journal collections I require for my work

The ‘Wild User’ wants to use the library’s collections at a distance from the library, independently and self-sufficiently and this is an international phenomenon.

2. Role of LIS Professionals

Dedicated and qualified LIS professionals need to have the following basic skills/traits and qualities in order to provide better and efficient LIS services to their users.

- Knowledge of ICT tools and techniques
- Good managerial skills
- Ability to analyse readers’ needs
- A knack for listening
- Knowledge of major topics / subjects

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LIS professionals discharge their role as effective knowledge managers in today's knowledge era as they are equipped with library education at Bachelor’s and/or Master’s level, knowledge of ICT tools and techniques, along with hands on experience of some years in LIS. But LIS professionals have to develop professional competencies and skills to fulfil their duties in present era as they come across many newly developed subject areas, emerging technologies, new equipments and new techniques in many areas of operations and services such as, knowledge capture, knowledge processing (and dissemination) and knowledge application. Continuous staff training courses, reading related informational and practical material, attending seminars and workshops on emerging technologies is essential to learn, improve and develop various kinds of professional skills, knowledge and competencies.

Of course, the challenges are plenty and so are the ways and means to deal with them.

3. **Skills & Competencies Requirements of LIS professionals**

A set of skills, though required in earlier times also but with very limited scope have grown into a major, explicit and vital requirement for handling the job of information intermediary in present times. The following basic skills are required by LIS professionals for providing effective LIS services.

1. **Managerial Skills:** To manage subscriptions, access knowledge about identities, and Intellectual properties of the institution.

2. **Negotiating Skills:** licenses, contracts, vendor dealing, sales agreements etc.

3. **Legal Skills (aptitude):** Copyright, IPR, International Contract codes etc.

4. **Technical / Technological Skills (Acumen)**

5. **Marketing and Presentation Skills:** Return on Investment (ROI)

6. **Product Innovators**

7. **ICT Knowledge and Skills**

8. **Communication and Training Skills**

The term 'Competency' is defined in various ways. A decade ago, competency was considered in terms of personal characteristics and was judged in terms of character, virtue, and innate abilities. Now competence is considered more in terms of skill-oriented behaviour and observable actions.

Competency is defined by Council of Europe as “the set of knowledge and skills that enable an employee to orient easily in a working field and to solve problems that are linked with their professional role” (Webber, 1999).

Professional competency is (1) a set of individual performance behaviours which are observable, measurable and critical to successful individual and company performance and (2) Individual characteristics of a person which result in an effective and superior performance in a job. (www.managementstudyguide.com/what-are-competencies.htm)

Business Dictionary has defined competency as “A cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation. Competence indicates sufficiency of knowledge and skills that enable someone to act in a wide variety of situations. Because each level of responsibility has its own requirements, competence can occur in any period of a person’s life or at any stage of his or her career.” (www.businessdictionary.com/definition/competence.html)

Web definition of professional competence is “It is a combination of knowledge and capabilities which allow the performance of an occupation according to the demands of production...” (www.educacion.gob.es/educa/incual/ice_glosario_ing.html)

Core competencies in the case of LIS professionals are: (i) Personal; and (ii) Professional.

Corbin (1993) has classified competencies required for providing electronic information services into personal characteristics, basic skills, general knowledge, and specialised knowledge.

**Professional Competencies**
It is the capability to perform the duties of one's profession generally, or to perform a particular professional task, with skill of an acceptable quality.

Professional competencies have been defined as the interplay of knowledge, understanding skills and attitudes required to do a job effectively from the point of view of both the performer and the observer. LIS professionals should have unique competencies for the in-depth knowledge of print and electronic information resources in management of information services.

SLA has summarized following professional competencies of LIS professionals: (i) traditional LIS skills; (ii) information management; (iii) IT skills; (iv) transferable / generic skills; (v) teaching, training and coaching; (vi) management and leadership; (vii) entrepreneurship; (viii) attitudes and professional values; and (ix) other skills/knowledge. It is clear from the literature that employers are increasingly emphasising transferable and soft skills, especially communication, management, leadership, training and teamwork. (SLA, 1996)

Professional competencies can be thought of as flexible knowledge and skills that allow the librarian to function in a variety of environments and to produce a continuum of value-added, customized information services. They relate to the librarian's knowledge in the areas of information resources, information access, technology, management and research, and the ability to use these areas of knowledge as a basis for providing library and information services.

LIS professionals in Library and Information Services need to have the knowledge of the basics of IT, particularly in the area of computer, communication and networking technologies. Professionals are also required to have the knowledge of the principles and techniques of information storage, retrieval and organize information and knowledge so that the right information can be retrieved and so routed at the right time. This would include all the traditional core skills of library and information science, specifically indexing, cataloguing and authority control, and the creation of synthetic structures to retrieve the information.

LIS professionals have to be effective in oral, written, and electronic communication with users, colleagues, and supervisors. They have to be effective in promoting and marketing their services, as well as promoting the value of their service to the parent organisation. They also need good interpersonal and networking skills to interact with their users and effectively with their colleagues. (Sheila, 1999)

LIS professionals in this era are required to have the following professional skills and competencies so as to provide better, efficient and effective LIS services. Some of the unique competencies of the LIS Professionals are discussed in the following sections.

3.1 Technical Skills

LIS Professional must be aware of emerging technologies. It has become increasingly important that librarians keep up with technology and have certain basic skills. Library professional must have the knowledge of library automation, networking, content management, HTML, scripting languages, digitization and preservation, the ability to deal with the back-end of the Online Public Access Catalogue (OPAC), the ability to translate library services into the online medium, the ability to troubleshoot basic computer and printer problems, and should have healthy knowledge of emerging technologies.

LIS Professionals need to do so much work online these days. They should have knowledge about basic catalogue and database searching. Librarians have to be able to use search engines effectively. They need to be able to find quality online resources and help users to set up e-mail and teach basic Internet skills. They need to be able to solve problems of users that may come across and see that users are having access to online library resources.

Librarians not only need to familiarize themselves with a variety of library databases, including remote access and licensing restrictions, but also need to have wide-ranging knowledge of what is out there on the web. As for searching skills, librarians are expected to have exceptional skills in selecting and searching library databases, demonstrating the searching process to the user, and searching the Internet efficiently and effectively. Learning about new technology is definitely a skill. Librarians should also learn about new gadgets, tools and other such developments. Librarians need to learn ‘how to learn’ about new technologies without having to ask other people for help all the time. Librarians use ICT tools like scanner, printer etc. As we get new computers, printers, scanners, etc., we will need to learn how to troubleshoot those and find solutions. Librarians should be able to play with the technologies in the library, to learn what problems commonly come up, and to fix and solve them.

3.2 Time Management Skills

Time management refers to a range of skills, tools, and techniques used to manage time while accomplishing specific tasks, projects and goals. This includes activities of planning, allocating, setting goals, delegation, analysis of time spent, monitoring, organizing, scheduling, and prioritizing. Initially time management referred to just business or work activities, but eventually the term broadened to include personal activities also.
3.3 Presentation Skills

Professionals must have highly effective presentation skills. If he wants to implement a new technology or service for Library clients, first he must create a proposal for management. He must show what would be the consequence of this new technology, which tool to use to train staff, market the service etc. He must show the role of that new technology currently being used in other libraries. He can develop and practice reader’s advisory skills to promote reading habit among all level of users. Through his presentation skills, he can increase awareness of the role of libraries and librarians in promoting information literacy.

3.4 Communication Skills

These days, good communication skills are essential for library professionals of all levels. One has to interact and send written communication to library users, faculty members, students, publishers/suppliers, external agencies, etc. S/he should also have etiquettes for communication.

Communication has a great importance in providing better services to users. Communication helps to bring the value of library service to decision makers, staff and users. When the librarian provides information to the user, he must communicate clearly and respectfully with customers and colleagues. Interpersonal and intrapersonal communication plays a vital role in daily activities. LIS professionals should always demonstrate active listening skills with users and colleagues at their workplace. Communication must be effective with users and must have ability to negotiate effectively with management, publishers & vendors.

The method of communication changes with the reference media. In the online environment, librarians are required to acquire a set of special communication skills to effectively and efficiently communicate with users.

3.5 User Services

The librarian must observe user needs and try to provide their required information on time. He should make continuous efforts and try to design and improve user oriented information products and services. With professional competencies, he can provide them with better user services and always show them confidence and competence to deliver perfect LIS services.

3.6 Evaluation and Assessment Skills

LIS Professionals need to understand how any changes in the way the library provides services will affect the interest of all the stakeholders. With any change, librarians should create a list of all of the different stakeholders and actually discuss how it will affect each of them. When we say “stakeholders” we do mean not only our users but staff, IT, policy makers, planners, managers and administrators. We need to continually analyze, investigate and assess the information service needs of the users and according to our stakeholders’ needs, we can design and deliver specialized value added information products and services. Time to time, we can evaluate the outcomes of the use of library and information resources and services for which we can obtain feedback to find solutions to the identified information management problems.

3.7 Managerial Skills

In managerial skills, we include technical skills, human skills & conceptual skills. Technical skills involve process or technique, knowledge and proficiency in a certain specialized field. The technical skill involves the Librarian’s understanding of the nature of job that people under him have to perform. Human Skills involve the ability to interact effectively with people as Librarian interacts and cooperates with employees and staff also. Librarian with good human skills is able to get the best out of their people.

Conceptual Skills involve the formulation of ideas, conceptualization about abstract and complex situations levels. Conceptual skills refer to the ability of a Librarian to take a broad and farsighted view of the organization and its future, his ability to analyze the forces working in a situation, his creative and innovative abilities and his ability to assess the environment and the changes taking place in it. Thus, technical skill deals with things, human skills concerns people, and conceptual-skill has to do with ideas.

3.8 Knowledge of Policies, Procedures, Issues and Standards: LIS professionals should-

- maintain current awareness of professional issues impacting libraries
- demonstrate knowledge of library policies, procedures and service standards

3.9 Knowledge of Information Sources & Services: LIS professionals need to-
• develop specialized subject knowledge about the purpose of the organization
• identify materials appropriate to customers’ requirements and their abilities
• acquiring expert knowledge in the content of information resources and ability to critically evaluate and filter them
• develop and deliver convenient, easily accessible and cost effective information services to the users

3.10 Commitment to Life-Long Learning: LIS professionals should-

• take responsibility for the development of one’s own professional career
• remain knowledgeable about current events and technologies
• pursue learning opportunities, personally or through formal training
• be flexible in adapting to new situations, systems, tools, environments
• anticipate, accept, adapt and manage change effectively

3.11 Other Miscellaneous Skills: In addition to the skills mentioned above, librarians should have following skills and abilities for the performance of their duties.

• Marketing and promotion of library services
• Project management skills
• Digital rights management
• Writing and publication skills
• Reference interview skills
• Ability to evaluate resources and services
• Multi-tasking skills:
• Ability to work in a collaborative environment
• Instructional role
• Ability to work under pressure. (Parvez Ahmed and Yaseen, 2009)

4. Conclusion

“Organizations must be retooled; new skills must be learned or brought into the organization to ensure our viability.” (Abram, 2006)

It may be summarized that library and information professionals must be equipped with the professional competencies in order to discharge their role, not only as gatekeepers of knowledge, but as managers of the same. Need-based and tailor-made short-term training programs, workshops, refresher courses will be needed for existing professionals, for refining their skills and developing the expertise.

In today’s competitive world, the theoretical knowledge of academic subject is not good enough for LIS graduate to survive. The graduates will have to develop professional competencies to meet the challenging as well as changing needs of employers/users. They will have to improve their communication skills, problem solving attitude, good knowledge of IT, presentation skills, and will have to provide services to users with motivation and commitment. These competencies will certainly enhance their employability skills.

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References


Librarianship Needs Intrapreneurial Behaviour

Ganapathi Batthini*

Abstract

The basic objective of this paper is to inculcate Intrapreneurial initiatives among the library and information science professionals, design libraries to foster the entrepreneurial business model and pave the way for entrepreneurial librarianship or knowledge entrepreneur.

Introduction

Shrinking resources and increasing demands for information and services are looking for a new operating model to meet present challenges for LIS professionals. The entrepreneurial operating model is especially attractive for library science professionals; with its focus on increasing revenues by expanding services and products. Entrepreneurship directly addresses the issue of reduced resources. An intrapreneur is an employee of a large organisation who has the entrepreneurial qualities of drive, creativity, vision and ambition, but who prefers, if possible, to remain within the security of an established company. This can be done by changing the existing environment of the large firm to incorporate such individuals, or by setting up new corporate ventures in which such individuals can flourish. In contrast, libraries are not expected to generate revenue. Intrapreneurship is the primary business model for private sector, it can be initiated and implemented in libraries for providing better library services and generate financial resources. In comparison, entrepreneurialism requires an abrupt change with the library focusing instead on generating profit.

Two Phases of Intrapreneurship

Pinchot (1987) refers to intrapreneurs as ‘dreamers that do’. Accordingly, it is possible to distinguish between two phases of intrapreneurship, which may be called ‘vision and imagination’ and ‘preparation and emerging exploitation’. Analytically, this distinction formalizes the sequential nature of the various intrapreneurial activities. Empirically, it helps in assembling relevant items for measuring intrapreneurship. In practice, these stages may overlap and occur in cycles, as the perception of an opportunity sometimes follows various preparatory activities such as product design or networking (Gartner & Carter, 2003). The two core elements of intrapreneurship are also strongly linked as imagination includes exploring possible barriers and problems facing the project and figuring out various solutions.

The Scope of Intrapreneurship

As there is a large conceptual diversity in the literature with respect to the relevant scope of entrepreneurial behaviour, this also reflects on any intrapreneurship concept. There are at least three alternative conceptual approaches.

The first is ‘pursuit of entrepreneurial opportunity’ (Shane, 2003). This includes developing a new product or service, a new geographical market or a new production process in the widest sense. This view probably represents the most encompassing view of entrepreneurship, as it acknowledges both the Kirznerian and the Schumpeterian perspective of entrepreneurial opportunities (Shane, 2003:35).

The second view may be labeled ‘new entry’ (Lumpkin & Dess, 1996). New entry includes entering new markets with new products, entering established markets with new products or entering new markets with established goods or services. In the latter case, the venture may be characterized as replicative rather than innovative. This concept is particularly relevant for intrapreneurship.

Finally, ‘new organization creation’ (Gartner, 1989) offers a behavioral view of entrepreneurship as the process by which new organizations are created. Following this, specific view of intrapreneurship could be either innovative but should always be linked to some sort of ‘internal start-up’ (such as establishing a joint venture, a new subsidiary, a new outlet or a new business unit). This conceptual elaboration on the nature, process, and scope of intrapreneurship provides us with the building blocks for a theory-driven research design of the international comparative study.

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Roles and Responsibility of a Librarian as an Intrapreneur

Library and Information Science Professionals are supporting campus academic programmes in ways that go beyond traditional bibliographic instruction and collection development responsibilities. In entrepreneurship and management education, experiential learning is used more than traditional case analysis. Depending on business growth objectives, students may conduct market research surveys, evaluate new products, or develop marketing or information technology strategies (Banjo, 2009). It becomes a win-win situation. Students get the experience of interaction with the business community on real business problems. Entrepreneurs get access to expertise and resources they could probably not afford on a small business budget. Librarians, when they get involved in these activities, can emphasize the relevance of the library and the information resources.

The roles of today's librarian are much beyond what they were two decades ago. They have to develop library vision, mission, and goals with input from administrators, teachers, students, parents and all other stakeholders. Strategic role is required while developing the plans for expansion of a section or catalogue. Also he has to use the footfalls in the library to assess library assets and needs and develop appropriate strategic plan for improvement. Now-a-days many Librarians are free to decide the policies regarding the library and also adaptation of procedure. On the documentation front and maintaining of records, they have enough scientific or technological instruments. Making a proper use of it, librarians are doing great management on all aspects of the library programmes.

Budgeting is now not limited to the account and finance wings in many institutions. Due to departmental budgeting, every department has to prepare its own budget and librarian has to also follow the similar activity. In so many institutions, the yearly budget is fixed for library and librarian has to decide how much s/he is going to use on Cases, Book, CDs, Periodical and magazines. It is his/her duty to make equilibrium among all the requirements.

Conclusion

Putting altogether, it can be concluded that, the librarian is an Intrapreneur within the organisation, who always makes efforts to maximise the satisfaction to the visitor as well as stakeholders.

References


Enhancing Skills of Librarians in the 21st century

Amita Parmar*

Abstract

This paper outlines the enhanced skills required by Librarians for providing effective services to the end users. The paper focuses on skills in two areas viz, Technology and Communication Proficiency for librarians. Also, the paper stresses on the need to adapt change management so that one can easily learn new technologies, keep up with changes in the profession, plan for new services and evaluate technologies, sell their ideas and market services. This will help to meet the challenges of changing user populations and changing technologies.

Introduction

The information society development demands to re-define the objectives of all the institutions which work with information, knowledge and culture. Owing to the general development of information society to re-evaluation of all the institutions which work with information, data, knowledge and indirectly also with culture has become essential. In this connection the role of education and media has been discussed. Libraries as well as other knowledge institutions like archives and museums have also been considered. Still, there is a clear need in the information society to maintain an institution which concentrates on collecting and organizing information and offers general access to it. Until now, this work has been underestimated, but the situation needs to be changed. Libraries are especially important now when the whole idea of education lays more and more stress on independent learning. All interested must be able to find and use information.

Changing Scenario of Knowledge Centers

In the last decade, it was found that knowledge centers entered in the stage where,

- The unique function of libraries was to acquire, organize, offer for use and preserve publicly available material irrespective of the form in which it is packaged (print, cassette, CD-ROM, network form etc.).

- It has an important and unique role in mobilizing success of human beings. It is impossible to imagine how people’s creative powers could be fully activated without the impact of culture.

The challenge to modern societies is that the basic resource, knowledge is developed from information in an individual, by an unpredictable process. Hence we need to organize data and information in a proper way.

What we Found and What are the Expectations

When we talk about the library schools- preparing new librarians for our society, most of the popular and important basic concepts are covered. For example, collection development topic is taught very well in the library schools as well as reference services.

Most librarians have experienced that library automation software which they learned during their study, is not used in their current library job. Once they started looking for jobs, they realized that they required technical skills. Whether the advertisements ask for HTML skills, knowledge of scripting languages (not applied for college libraries), the ability to deal with the back end of the Online Public Access Catalogue (OPAC), the ability to translate library services into the online medium, the ability to troubleshoot basic computer and printer problems, or just a good healthy knowledge of emerging technologies. So, it has become increasingly important that librarians keep up with technology and have certain basic skills:

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Basic Technological Competencies
1. **Ability to embrace change**: Population of our patrons is rapidly changing as are the technologies for serving them. We need to be able to look at how we are serving our patrons and to change our strategies if what we are doing is not working. The change should be looked upon as an exciting and as a positive thing. We should provide the best service to our patrons and should not fear change.

2. **Comfort in the online medium**: Librarians need to give more online services these days, way beyond basic catalog and database searching. Librarians have to use search engines and use them well. They need to be able to find quality online resources. They need to help patrons set up email and teach basic internet skills. They need to be able to troubleshoot problems users are having - accessing online library resources, at least to the extent where they can figure out if the problem is on the library’s side or the user’s side. Reference librarians are often providing reference services online via e-mail and synchronous chat.

3. **Ability to troubleshoot new technologies**: Librarians need to have the abilities at least to use the scanner, fix the printer and troubleshoot any other technology problems they may be having. As we get new computers, printers, scanner, etc. we need to learn how to troubleshoot those. The key is just being able to take a decision as to what should be done when there is a problem.

4. **Ability to easily learn new technologies**: When we are working with any new technology, we may become apprehensive. In that case, first of all, we should remove this from our mind, as to what will happen if there will be some problem. Just play with that. It is the best way to learn new technologies. Trial and error are necessary to learn new things.

**Communication Skills**

1. Use effective team process skills to develop and achieve organizational goals, and to work collaboratively with all levels of library staff.

2. Communicate openly, directly, clearly and respectfully with customers and colleagues.

3. Demonstrate active listening skills with users and colleagues.

4. Focus on solutions, rather than on problems.

**Conclusion**

In the complicated modern society libraries have many kinds of answers to many demands of the society. They have potential means to serve both the information society development and their tradition humanistic tasks. Maybe information technology will even make it easier to combine these elements in the future than in the past.

Technologies will come and go. Change is inevitable. But if librarians can adapt and embrace change, they can easily learn new technologies, keep up with changes in the profession, plan for new services and evaluate technologies. By marketing their services they will be better able to meet the challenges of changing user populations and changing technologies.

**References**

How to Create One-Stop-Search Facility for Electronic Periodicals through GSDL? A Do-It-Yourself Approach

Lavji N. Zala*

Abstract

Some libraries link online resources that contain electronic periodicals at their webpage or portal. Apart from that few libraries provide browsing facility of each periodical to their portal. But very few libraries provide one-stop-search or federated search facility for accessing electronic periodicals from various online resources. This paper explains and provides a practical view about how librarians can save the time of users and library professionals by providing cost effective One-Stop-Search facility to search respective periodical/s within subscribed online resources.

Keywords: Electronic Periodicals Management, Greenstone Digital Library Software (GSDL), Open Source Software, One-stop Search, Do-It-Yourself (DIY)

Introduction

In the age of digital arena, libraries possess more electronic resources compared to print resources. Electronic resources are available in various categories such as e-books, e-dissertations, e-theses, e-periodicals, e-courseware etc. Dr. Shailesh Yagnik mentioned in his study that libraries spend more than 50% budget in subscribing electronic commercial databases. The data obtained from libraries of 50 colleges, institutions, universities and Research & Development Centres in Gujarat shows that libraries subscribed more than 373 commercial databases (Yagnik, 2011, p. 33). Most of libraries provide access of subscribed e-periodicals through linking of online resources to their portal/website, some libraries create browsing facility where users can access electronic periodicals in alphanumeric order (0-1, A-Z browsers), few libraries provide access of electronic periodicals through A-Z search and retrieval (browsing plus search and retrieval of each electronic periodical) system, whereas very few libraries provide access to its resources through federated search system in India (Chintha, 2013).

Why One-Stop-Search Facility in Library?

The user comes with the exact title of periodical to search. He starts searching one by one online resources for full text periodicals that have been subscribed by the library. The user will consume much time to search a periodical of his or her interest if the library has subscribed number of commercial online resources (e.g. ABI-Inform Complete, EBSCO Business Source Complete, SAGE Communication and Media Studies Complete, J Store Complete and many more). If s/he does not find the exact title of periodical in all online resources after spending much time in searching s/he will get frustrated.

Libraries are subscribing number of full text periodicals through online resources from publishers, aggregators and consortia models. Users are not concerned about the content of online resources but whether the full text periodicals of their interest are available in any of subscribed online resources or not matters to them. They are not forced to access all online resources to explore the e-periodical/s of their interest. But there should be such a system in which users can browse, search and retrieve the full text periodicals available in all online resources through single window @ One-Stop-Search.

Do-It-Yourself (DIY) Approach

The Merriam Webster Online Dictionary defines the Do-It-Yourself as follows.

The act of doing or making something without professional training or assistance or an activity in which one does something oneself or on one's own initiative (Merriam-Webster’s online dictionary, n.d).

Creating One-Stop-Search through DIY approach will increase the confidence level among library professional because it is one’s own initiative and s/he is not taking any help from expert to do it.

Greenstone is an open source and multilingual software to build digital library collections. It is produced by the New Zealand Digital Library Project at the University of Waikato. It empowers its’ users to create their own digital libraries. (http://www.greenstone.org)

Creating a One-Stop-Search for electronic periodicals consist of a series of functions which are described one by one as follows.

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How to create One-Stop-Search facility through Greenstone Digital Library Software

• Preparing a list of periodicals
List out full-text periodicals in Excel with Title of periodical, Subject, Hyperlink, Coverage of the period, Embargo, publisher etc, which are available in all subscribed commercial online resources. Some online resources may contain similar periodicals with different coverage of the period so that the duplication will be traced easily in Excel.

• Creation of HTML files of periodicals
A hyperlink can be created in Notepad or Macromedia Dreamweaver program. You can use the program in which you are comfortable. How the hyperlink can be generated through the Macromedia Dreamweaver has been shown as under.
Generating the new file in Macromedia Dreamweaver MX, following tags (strings) will be observed as default value.

```html
<html>
<head>
<title>Untitled Document</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
</head>
<body>
</body>
</html>
```

Keep cursor at <body> tag. Click on hyperlink toolbar icon ( ) or click on hyperlink option under “Insert Menu”. It will open pop-up window called hyperlink. Now copy the Title of periodical from the excel file (that you have prepared already) and paste it in "Text" box. Now copy the hyperlink of that periodical from Excel file and paste it in “Link” box given to “hyperlink” window, press OK button and save the file. Note that you have to create an html file of each periodical and prepare a separate folder of each online resource and put the html files of the periodicals of relative online resource within that folder only.

It is good if you copy the hyperlink and paste existing excel file for the future reference. It will be an immense help when each periodical will be given value at dc.Title element/metadata.

• Creating collection in GSDL
Open Greenstone Librarian Interface and create a new collection (e.g. A-Z Periodicals) within it. You have to drag the html files (from Gather Panel) that you have created for each periodical to A-Z Periodicals. Different metadata sets reside in the Greenstone Librarian Interface. You can choose any of existing metadata sets or create your own (Here Dublin Core Metadata Element Set will be used). Now, assign different types of metadata such as Title, Subject and Keywords, Publisher, Date, Source and many more.

• Assigning folder level metadata
Specific online resource (e.g. DOAJ) contains many electronic periodicals. Create folder named DOAJ in your disc. Put all html files of all periodical belonging in DOAJ online resources within DOAJ folder. Now, open the collection (e.g. A-Z Periodicals) and drag the folder called DOAJ in Gather Panel.
It is required to create a hyperlink of DOAJ through Macro Media Dreamweaver MX. Keep cursor at <body> tag and click on the hyperlink toolbar icon ( ) or click on a hyperlink option under “Insert Menu”. It will open pop-up window called hyperlink. Now type “Directory of Open Access Journal” in “Text” box. Copy the URL of DOAJ from its homepage and paste it in “Link” box given to “hyperlink” window, press OK button. It will create a hyperlink of “Directory of Open Access Journals”. Now, Go to Enrich Panel. It is time to assign DOAJ folder as folder level metadata. Select the folder and put copied hyperlink of “Directory of Open Access Journals” at “dc.Source” element as shown in the image below.
It will assign html files of all periodical residing in a DOAJ folder in “dc.Source” element. No need to enter a value (e.g. Hyperlink of Directory of Open Access Journals) of “Dec. Source” metadata/element for each periodical separately.

- **Assigning file level metadata/element**
  At Enrich Panel each Html file of periodical available within the folder (e.g. DOAJ) will be assigned a value at dc.Title element. Select each html file and copy the hyperlink from <body> tag from the HTML file (or from Excel file where it has been listed out) of concern periodical and paste it to dc.Title metadata.

  E.g. Following hyperlink from <body> tag has been copied from African Journal of Information & Communication Technology Html file (that has been already created through MacroMedia) and pasted it to dc.Title metadata.


  Even if it will not sort the periodicals in alphabetic order, to sort all periodicals in alphabetic order the title of the periodical should be placed before the hyperlink as shown below.


  We need to remove title of periodical as shown in italic letters and instead of that “CLICK HERE” text will be replaced.


  Note that we have assigned the value of dc.Title and dc.Source metadata only. You can assign values of different elements/metadata eg. dc.Subject and Keywords, dc.Date, dc.Language, dc.Coverage etc as per your requirement.

- **Creating a proper search facility through search indexes**
  User needs to search specific titles of periodical from hundreds of electronic periodicals available within online resources subscribed by the library. It is essential to provide a proper search system from where the user can search the title of the periodical of his/her interest through Title, Subject, Publisher its elements or metadata.

  Now, go to Design Panel. Click on Search Indexes option. The Assigned Indexes format will be seen as follow.

  `text [Default Index]
dc.Title, ex.Title ex.Source`

  Aforesaid format is a default format. It is needed to change to create a proper search system.

  The “text [Default Index]” allows user to retrieve the results through possible elements or metadata such as dc.Title, dc.Subject & Keywords, dc.Source and many more. The “text [Default Index]” to be modified as follows.

  Select “text [Default Index]” index as shown under “Assigned Indexes” and click on “Edit Index” button. It will open a new window called “Edit Index”. Click Full Text, dc.Title, dc.Subject & Keywords, dc.Source check boxes and click on “Replace Index” button.

  The “dc.Title, ex.Title” index allows to retrieve keyword/s or phrases from dc.Title and ex.Title elements/metadata only. Sometime, the metadata called ex. Title may not show the entire text of the title so it should be removed from the index.
Select "dc.Title, ex.Title" index as shown under "Assigned Indexes" and click on "Edit Index" button. It will open a new window called “Edit Index”. Uncheck “ex.Title” check box and click on “Replace Index” button.

The “ex.Source” index in not useful so it will be removed by clicking on “Remove Index” button. Click on “New Index” button to add more Dublin Core Metadata Indexes such as dc.Subject & Keywords, dc.Source etc. at “Assigned Indexes” box.

The modified string of Assigned Indexes will look like:

- text,dc.Source,dc.Subject and Keywords,dc.Title
- dc.Title
- dc.Subject and Keywords

• Creating Browsing Classifiers

Browsing Classifiers are either simple title lists or complex subject hierarchies. Users can access the electronic periodicals in alphabetical order and subjects in either alphabetical or hierarchical order. We need to create “Title” and “Subject” classifiers to access electronic periodicals according to titles and subjects.

Now, go to Design Panel. Click on “Browsing Classifiers” option. The Assigned Classifiers format will look as follow.

List -metadata dc.Title;ex.Title -partition_type_within_level approximate_size
List -metadata ex.Source -partition_type_within_level approximate_size

Aforesaid are default formats and it will not be useful so both formats should be removed through “Remove classifier” option. We need to create two types of Browsing Classifiers such as dc.Title and dc.Subject & Keywords. As per requirement, more classifiers can be created.

The first requirement from users’ point of view is to create an A-Z list of all periodicals which are available in subscribed online resources/database. This will enable users to browse electronic periodicals in alphabetic order.

Add “List” classifier for “dc.Title”. Select “List” by scrolling down the “Select to classifier to add” option. Clicking on “Add Classifier” button, the popup window will be opened. Select “dc.Title” as metadata and write "A-Z" in buttonname option. (Instead of “A-Z” any keyword or phrase can be used as buttonname to identify it as AtoZ browser). After pressing on OK button, you will be at “Browsing Classifiers” screen at “Design” panel.

Now, all periodicals which are available in online resources should be browsed in alphabetic order under the Subject list. Create “AZCompactList” for “dc.Subject and Keywords”. Select “AZCompactList” by scrolling down the “Select to classifier to add” option. Clicking on “Add Classifier” button, the popup window will open. Select “dc.Subjects and Keywords” and Click on “sort” check box to sort periodicals in alphabetic order. Write “Subject” in buttonname option. (Instead of “Subject” any keyword or phrase can be used as buttonname to identify it as a subject browser). After pressing on OK button, you will be at “Browsing Classifiers” screen at “Design Panel”.

Now, the configured format of Browsing classifiers will be as follows.

- List -metadata dc.Title -buttonname A-Z
- AZCompactList -metadata dc.Subject and Keywords -sort dc.Title -buttonname Subject

• Renaming the search indexes

The “Search” option in “Format” panel allows users to search specific periodical by Title, Subject, Publisher and many more data elements that have been added to “Search Index” option at “Design” panel. The “Display text” under “Search” option at “Format” panel enables to create drop down list on the search page. The default format of “Display text” will look as follows.

<table>
<thead>
<tr>
<th>Item in search menu</th>
<th>Display text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index: text,dc.Source,dc.Subject,dc.Title</td>
<td>text,dc.Source,dc.Subject,dc.Title</td>
</tr>
<tr>
<td>Index: dc.Title</td>
<td><em>labelTitle</em></td>
</tr>
<tr>
<td>Index: dc.Subject</td>
<td><em>labelSubject</em></td>
</tr>
<tr>
<td>Level: document</td>
<td></td>
</tr>
</tbody>
</table>

Aforesaid format does not provide searching facility to search specific periodical by Title, Subject, Publisher etc. It is to be changed in “Display text” as follow.

<table>
<thead>
<tr>
<th>Item in search menu</th>
<th>Display text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index: text,dc.Source,dc.Subject,dc.Title</td>
<td>All Fields Search</td>
</tr>
<tr>
<td>Index: dc.Title</td>
<td>Title</td>
</tr>
<tr>
<td>Index: dc.Subject</td>
<td>Subject</td>
</tr>
<tr>
<td>Level: document</td>
<td></td>
</tr>
</tbody>
</table>

Preview the collection by clicking on “Preview Collection” button. Now, the “search” form contains “all fields search”, “title” and “subject” in the drop down menu. See the following image.
Setting the format features

Now, it is essential to provide a user-friendly appearance of web pages which are generated in the system. In other words, the metadata value of each metadata or element should be displayed in such a manner where the users can see the bibliographic details (Periodical title, Source or Name of online resource, Coverage, Subject etc.) of each and every periodical in specific format. The features about displaying bibliographic details of each electronic periodical at User Interface can be configured or modified at “Format Features” in “Format” panel.

a. Setting Search Feature

Click on “Format Features” option in “Format” panel. Scroll down “Choose Search” option and select “Search” feature from it. Simultaneously, Click on “Affected Component” and choose any component from the options given (e.g. VList). Now, click on “Add Format”. It will show following default format in “HTML Format String” box.

```
<td valign="top">[link] [icon] [/link] </td>
<td valign="top">[ex.srclink]{Or}{[ex.thumbicon],[ex.srcicon]}[ex./srclink]</td>
<td valign="top">[highlight]{Or}{[dc.Title],[exp.Title],[ex.Title],Untitled}</td>
[/highlight]{If}{[ex.Source],[br]<i>([ex.Source])</i>}</td>
```

To get bibliographic details displayed on User Interface while conducting search through any periodical or subject, following format should be replaced to aforesaid format in “HTML Format String” box.

```
<td valign="top">[link][icon][/link]</td>
<td valign="top">[ex.srclink]{Or}{[ex.thumbicon],[ex.srcicon]}[ex./srclink]</td>
<td valign="top">[highlight]<td valign=top align=centre width=100></td>
<table border=0 width=600 cellpadding=7 cellspacing=1>
{Or}{[dc.Title],[exp.Title],[dc.Title],Untitled}
<tr><td width=20 align=left valign=top><b>Source:</b></td>
<td width=1000 align=left valign=top>[[sibling(All' ; '):dc.Source]</td></tr>
<tr><td width=20 align=left valign=top><b>Subject:</b></td>
<td width=1000 align=left valign=top>[[sibling(All' ; '):dc.Subject]</td></tr>
<tr><td colspan=3><hr align=center size= noshade></td></tr>
</table>
```

Now, the search result will be displayed as follow.

b. Setting dc.title metadata in “Format Feature”

All periodicals should be displayed in alphabetic order with bibliographic details. Now, scroll down the “dc.Title” metadata from “Choose Feature” and replace following format in “HTML Format String” box.
Now, all periodicals will be displayed in alphabetical order (with bibliographic information of each) as follow.

Does this task consume much time?

Creating One-Stop-Search for all periodicals available with library contains series of functions such as from copying bibliographical information of periodicals (Title of periodical, Subject, Publisher, Coverage or period, Embargo, Source, URL of sources and periodicals) from concern online resources and pasting the information to MS Excel file to do enter data in some of metadata and to the Greenstone Librarian Interface. To perform aforesaid series of functions for one periodical it consumes maximum 9-10 minutes. If you have 5000 electronic periodicals and one of your library employees has been assigned for this job (working condition 25 days per month and 6 hours a day) he will complete series of functions and create One-Stop-Search within 5-6 months. If you outsource this job, it will take less than 5-6 months.

Advantages

1. No cost is involved for software as GSDL is an open source software
2. One time cost for the series of functions which are involved to create One-Stop-Search
3. Search of specific periodical is possible within no time
4. Available periodicals can be browsed through alphabetic order
5. Periodicals on specific subject can be browsed
6. Each periodical is accessible with its bibliographic information
7. Easy access through “One-Stop-Search”
8. Subscribed or open access online resources can be linked easily
9. It consumes much time to do the entire process but it is one time job
10. Low and small budgeted libraries can create this facility without any cost if it is done in-house

Disadvantages

1. No Real time update
2. Regular maintenance is needed to cross check whether link of each periodical is accessible or not.

Conclusion

This model will save the time of users and library professionals while searching specific periodical/s from subscribed or linked open access resources. Many vendors provide better service for A-Z Periodicals search and federated search for electronic periodicals but low or medium budgeted libraries can create A-Z facility through GSDL without spending much cost.

References


e-Learning Environment

Abhishek Kumar* & Pallavi**

Abstract

This paper deals with e-Learning environment i.e., definition of e-learning, e-content component and learning management system. ATutor is an open source learning management software and its features which support the e-learning environment are given. This paper also covers the configuration of ATutor with respect to four quadrant of e-content and interaction platform between learner and instructors/teachers. E-content is being developed for end-users who are undergraduate/post-graduate students.

Keywords: e-Learning, Learning Management System, ePG Pathshala, ATutor

1. Introduction

What is e-Learning

e-Learning means electronic learning. It is a kind of non-conventional education method where regular physical attendance and eye-to-eye contact with the instructor is not required and learning can be done from anywhere and at anytime according to the convenience of the student and at a place suitable to him/her.

The rapid growth in the e-content development using web technology and its ever increasing use has given unprecedented opportunities to the educators to extend learning material to the students not only within the four walls of class rooms but also in the comfort of their home all over the globe.

The Web 2.0 technologies are being used increasing, by teachers and learners not only for mutual interaction but also for content creation, development and its enrichment.

In the era of e-learning and open learning, a full-fledged learning management system is the most valuable resource for educational institutions enabling them to support classroom teaching and offering courses to a larger population of learners.

2. Ideal Components of e-Content

i) First Quadrant: First quadrant defines the structure of course along with textual content. It comprises of basic description of a module, prerequisites (in terms of knowledge background of a user before taking-up a module), introduction, objectives, keywords, summary, textual content (details of textual content on the topic, subtopics with examples and applications from day-to-day life, illustrations).

ii) Second Quadrant: The second quadrant comprises of multimedia enrichment of content that may include audio or video clips, animation, simulations, virtual labs, etc.

iii) Third Quadrant: The third quadrant provides links for external resources available on the Web as well as supporting material. For example: Did You Know? Points to Ponder, Glossary, FAQs, link to Wikipedia, other websites, blogs, discussion forum, etc.

iv) Fourth Quadrant: Fourth quadrant includes the self-assessment material. Assessment and evaluation questions may be in different format like multiple choice questions, true & false statements, sequencing, match the columns, problems, quizzes etc.

3. Learning Management System (LMS) and its identification

A Learning Management System (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of e-learning education courses or training programs.

There are number of LMSs available in the open access as well as license version in a variety of flavors and layout. Each product has its own advantage and disadvantage. The important decision making points, play vital role for the identification of an LMS which fulfills the requirements of clients (institute, instructor, etc).

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a. Analysis- The first and the most important step is analysis that covers the requirements of end-users.

   Basically, end-users vary in respect of nature of course content as well as their standard of classes.
b. Feasibility- After analysis of requirements we consider **four** major feasibility components **one** is course content development team **second** is technical feasibility **third** is financial feasibility and **fourth** one is operative feasibility.

c. Implementation- Installation and configuration is major part of the implementation process. It also covers technical environment of the software i.e. supporting architecture (e.g., networking, hardware, and software platform), security and privacy requirements, hosting server and legacy information systems.

4. ATutor: An Open Source Learning Management System
ATutor is an open source web-based LMS used for developing and delivering online courses. Administrators can install or update ATutor, develop custom themes to give ATutor a new look, and easily extend its functionality with feature modules. Educators can quickly assemble, package, and redistribute Web-based instructional content, easily import pre-packaged content, and conduct their courses online. Students learn in an accessible, adaptive, social learning environment. (Ref: Official website of ATutor)

4.1 Installation
ATutor has the following system requirement for installation:
- Operating System: Window or Linux
- Front end: PHP
- Back end: MY-SQL
The installation of ATutor is very simple. It is browser based installation. Once ATutor source / package is downloaded then it would be accessible from root folder of ATutor through web-browser. It will automatic configure the database, accounts, directory and preferences.

4.2 Features of A Tutor
A Tutor includes a variety of features designed to ensure that content is accessible to all potential users, including those with slow Internet connections. ATutor has all the major features with respect to Institutes that want to provide addition platform of learning to their students / learners. Basically it supports the building of the content in four quadrant approach (e-Text / lectures note, self-learning / demonstration, self assessment and reference or source of further reading material). The following three broad sections are available on the home page of each course module., i) Top navigation; ii) Right navigation iii) Page body. Instructors / teachers and ; students or learners are allowed to manage the courses they teach and/or are enrolled in.

**Top Navigation:** It comprises of all the features including all kind of supportive interactive tool / documents, and which is managed by the course instructor.

**Page-body:** A Tuor also provides links to course content from where learners may approach directly in any quadrant. Course coordinator can add any links of features in page-body.

**Right Navigation:** Right navigation is purely for content navigation, Students can browse through whole course site from one location developed by the subject experts as well as the search features of ATutor which search within the course module. Right navigation may also play the role of place holder of poll, quizzes, etc. All the above mentioned features-place holder can shuffle according to the course requirements. Instructor can impose one of the following restrictions on courses that are hosted:

i) Public – Open to all learners including guest learners.

ii) Private – Only registered learners can access the course.

iii) Protected – Restricted to learner assigned by the instructor
5. **End-Users**
   In this article it is suppose that the end users / learners are the under-graduate or post-graduate students.

6. **Content Navigation (Home Page)**
   The home page of content is very important from learner point of view. It comprises of three parts (with reference to e-PG Pathshala project), as figure given below, which explain the topic / course content and its related features.

Top navigation and Page body: Top navigation shows features related course material as such forum, file storage, glossary, package, etc. Page body is a centrally located part where instructor wants to put four quadrant of course material. With reference to e-PG Pathshala site, it is showing e-Text, Self assessment, self learning and download tutorial material.
To manage the top navigation and page body, Instructor login into LMS then select ‘Manage’ option. Under ‘Manage’ menu there is an option ‘course tool’, through course tool instructor can manage the top navigation and page body.

Right Navigation: Through right navigation instructor can put all the course material and its supportive components / features. Under menu ‘Manage’ another option is ‘Content’ through which instructor arranges the content material as per requirement of learners.

Conclusion

e-Learning is an important platform of learning beyond the four wall classroom. There are so many LMS available in open source. Institutes may install and configure LMS and can store all in-house course material like notes, ppt, theory lectures, educational videos etc into LMS. Such kind of institute’s initiative helps students to learn in a more effective and explanatory manner. They may use such platform within campus or host LMS worldwide i.e. on intranet or Internet. In the current scenario of e-Learning a full-fledged learning management system can help us to reduce the gaps due to digital divide and help us in classroom teaching and also in offering courses and its study material to a larger population of learners. But before going with any LMS, institution has to know about the requirement of its end-users, course contents, financial and operative feasibility, technical environment etc. So that the selected LMS platform can give you maximum benefit for your project.
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Creation of Institutional Repository with Dspace: A Study of LDRP-ITR, Gujarat - Library

Abstract

We know that 21st century is the information technology age. Today information and technology is the most useful factor in human life. In the modern age, human life is depended on information, every person requires information for different purposes. So it is required to store the information for future. Today some open source software’s like Dspace, e-print, Greenstone, SOPS are available for building digital repositories.

An Institutional repository is the digital collection of publications of a particular institute. This digital collection is not under a copyright act because it is the product of specific institute. Our repository is created using Dspace open source software. It is the most used digital library software. This digital collection contains research papers written by the students and faculty. Its main objective is to create a valuable digital collection which can be preserved for future utilization.

Keywords: Institutional Repository, LDRP-ITR, Digital Library Software

(1) Introduction

Today when we use the word ‘repositories’ we understand that it is a different technology to storage and dissemination of the digital content. So the term institutional repository involves organizing and managing the digital content which is generated by faculty, student and researcher at the particular institute. Institutional repository is the product of intellectual property of institute. “Institutional repository “term used in this paper means digital collection capturing and preserving the intellectual output of single or multi institute community and sharing with each other. At LDRP-ITR, Gandhinagar we have included only the intellectual output of faculty members and research workers.

(2) About LDRP-ITR

LDRP Institute of Technology and Research (LDRP-ITR), Gandhinagar was established in 2005-2006. The college has made steady progress since its inception. Established as a pace setting Institute of Technical Education, imparting undergraduate and postgraduate education, it has played a vital role in engineering colleges of Gujarat. The college also undertakes R & D activities and offers testing, consultancy and other extension services including continuing education to the small industries and the placement of the students through the Department of Training & Placement.

(3) Mission of LDRP-ITR

- Providing an environment that stimulates learning
- Our commitment to professional development of the faculty and research.
- Using technological innovations in the teaching process
- Continuous improvement of all process in order to achieve excellence
- Developing skills and knowledge with values
- Developing socially responsible and professionally competent students
- Enhancing global experiences and networking

(4) What is Institutional Repository

An institutional repository is a platform for identifying, collecting, managing, disseminating, and preserving scholarly works created in digital form by the constituent members of an institution. In the higher education sector, student and faculty are increasing day by day and they want to store their intellectual work. So we can say that institutional repository is very useful for future application and to build a digital collection, both for the individual & the institute.

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To prepare “repository” we have used different technologies that support the storage and distribution of digital content including:
First when we planned to create our institutional repository, we did a comparative study of the softwares for digital repository viz. Eprint, Greenstone, Dspace, CDS Invenio, DOKS Software, MYCORE Software, SOPS Software and Fedora, which are easily available and which met our requirement. Second step was installation and customization of Institutional repository. Out of the above, Dspace is the most popular and useful Java based software to build a digital repository and it is widely used software. DSpace is open source digital library software developed jointly by MIT libraries and HP labs. DSpace provides tools for management of digital assets, and is commonly used for building institutional repositories. It was basically designed to manage, host, preserve and enable distribution of the scholarly output of MIT’s faculty. DSpace helps to create, index and retrieve various types of digital contents which include research articles, grey literature, theses, cultural materials, 3D digital scans of objects, photographs, films, audio/videos, scientific datasets, institutional records, educational materials and other forms of content. DSpace was established to capture, preserve and communicate the intellectual output of an institution’s faculty and researchers through central place. The collection in DSpace is organized into communities, collections and items. The communities in DSpace include a high-level organizational structure the purpose of which is to divide the collection into related groups. Each community contains one or of which more collections, which are containers for related items. An item is a deposited object of any type; a published article, an image, audio, or video file, notes, a presentation, etc. DSpace is specially designed for digital preservation support for all the documents that are added into the repository in a simple fashion. The first version of DSpace was released during November 2002. For the present study installation of 1.8.2 version was carried out and selected for building a digital repository. This version was released on 24th February 2012.

Other supporting software’s like postgres sql -9 and Apache Tomcat Server-7, Apache Maven – 3.0.1, Apache Ant -1.8.1 are required for installation of Dspace. Dspace installation is very systematic If you follow the installation steps, the installation process is very easy. After Dspace installation is successfully completed then Dspace customization step is important. As part of customization, we have given the heading “DIGITAL REPOSITORY LDRP INSTITUTE OF TECHNOLOGY AND RESEARCH”, inserted the Logo and prepared a marquee tag. We have also given other open source links like e-books and e-journals.
Information Technology, Electrical Engineering, Mechanical Engineering, Civil Engineering etc. After community creation steps are completed, we have created the collection steps. First go to the main community and click on sub community, on right hand site we see the edit collection and create the collection.

Show the Community page.

The above community screen shows the main community and sub-community. Then you select the sub community and upload the study material, which you want to upload. Here only librarian can upload the research paper and projects as he is an authorized person. This repository is on intranet and it is limited only for campus.

In the digital repository, library user can find the data by title, author, subject and issuing date, In the search box, student can give only key word to find the data, the search list will be displayed.

Show the Search Result

Conclusion

(A) Problems
In the modern age, the library system has changed from traditional to technological. Now library can adopt digital technology and information communication technology. But main drawback librarians face is lack of know how to use information technology. Given below are some problems faced during the installation of Dspace as this is an online installation process.

(1) Sometimes there were problems in “MVN Install Package”
(2) Problems in “ANT Fresh install” due to the database error were also encountered
(3) We had to frequently run the “Item counter command” to show the community wise collection
(4) Problems in Customization of Dspace home page due to the programming language.

(B) Recommendation
(1) Institutional Repository is the best solution to digitize institutes publications. But libraries need the required resources to create digital repository.
(2) Open source is very useful to build a digital repository
(3) Motivate the staff and student to create digital content.
(4) Give training on digital repository and application of software to the librarian
(5) If possible, arrange a workshop on open source software in the library
(6) Provide all facility like computer lab, networking, scanner, printer etc in the library.

Bibliography

Information Sources for Budding Entrepreneurs

Umesh Mehta* and Ashok Madnani**

Abstract

This paper describes the brief information about resources available for potential entrepreneurs to identify and select the new and emerging business opportunities in various fields. Also this paper will facilitate besides entrepreneurs; trainers, teachers, industry officers, small business consultants and others as a useful tool for selecting and identifying right kind of business opportunities.

Introduction

One of the critical roles the EDILIC (Entrepreneurship Development Institute of India Library and Information Centre) is expected to play is to disseminate the latest business opportunities to the potential entrepreneurs. Most potential entrepreneurs suffer from several constraints, which prevent them from making an entrepreneurial movement which leads to setting up of an enterprise. Lack of information and knowledge in identifying and selecting right kind of business opportunity on emerging areas is a big constraint. To identify a product, an entrepreneur needs a lot of information. Especially young graduates, technical employees, less educated traders, etc. who are increasingly entering business simply do not know how to select and identify right kind of business opportunities suitable for them. It is also observed that when business idea is already there, sometimes it is difficult to evaluate its techno-economic viability due to insufficient information.

An entrepreneur gets the information from personal sources and formal sources as well as impersonal written and oral sources. A number of organisations and publications inform about business opportunities and new products. There are primary and secondary sources of information. In primary sources, a person has to collect information directly from the market. Secondary sources are those which are published by Govt. Organisations, consultants, agencies, publishers, etc.

Objective

To provide a large number of information resources for budding entrepreneur to identify the business opportunities.

Information Sources

EDILIC disseminates the information through the following sources to identify and select the right kind of business opportunity to the potential entrepreneur.

1. Product Information Bank (PIB)
2. New Product Information
3. Business Directories
4. Clipping Service on Business Opportunity
5. Company Information, Overviews and General Industry Information
6. Technology Related Information
7. Market Information
8. Statistics and Financial Information
9. Online Information

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The details about these sources are:

**Product Information Bank (PIB)**

Product Information Bank having more than 10,000 products is being maintained in the library to help trainers, participants, entrepreneurs and others. Various sources such as journals, newspapers, profiles, reports, etc. are used for developing PIB. Nine fields viz. Name of the product, title, source, page no., capacity of the plant, cost of the project, category (e.g. market survey, feasibility study, project profile) and year, are covered to retrieve the information. This databank is available on the Intranet through LibSys software.

**New Product Information**

The strength of EDILIC is the collection of project profiles, which gives the information on new products. The following information sources on project profiles provide basic data of the products which could be manufactured in industries, technology available and various inputs to be provided like marketing potential, production details, manufacturing process, raw-material, working capital, capital investment, product cost etc. to make the project viable. These project profiles provide basic guidelines to the entrepreneurs.

- **Sources for Project Profiles**
  - Ministry of Food Processing, Government of India
  - Office of the Development Commissioner (SSI)
  - Khadi and Village Industries Commission
  - Micro, Small and Medium Enterprises
  - National Small Industries Corporation
  - SBP Consultants & Engineers Pvt. Ltd.
  - National Institute of Industrial Research
  - ITCOT Consultancy and Services Limited
  - UNIDO
  - SIRI Publications
  - Entrepreneur Press Inc., USA
  - Asia Pacific Business Press
  - GITCO

- **Suppliers of Project Profiles**
  1. SBP Consultants & Engineers Pvt. Ltd.
     19-A, Ansari Road Daryaganj, New Delhi 110 002
     Phone: 011 011-23284212
     Email: sbpcon@ndf.vsnl.net.in Website: www.sbpconsult.com
  2. National Institute of Industrial Research
     106-E, Kamla Nagar Delhi 110 007
     Phone: 011-2384 3955 Email: niir@vsnl.com Website: www.niir.org
  3. ITCOT Consultancy and Services Limited
     50-A Greames Road Chennai 600 006
     Phone: 044-282 94504 Email: peet@itcot.com Website: www.itcot.com
  4. Entrepreneur Media Inc.
     2445 McCabe Way. Ste Irvine, CA 92614, USA
     Email: subscribe@entrepreneur.com Website: www.entrepreneur.com
  5. Office of the Development Commissioner (SSI)
     Ministry of Small Scale Industries
     Govt. of India Nirman Bhavan, A-Wing,
Business Directories

The EDILIC has rich collection of various directories. Apart from the Product Information, entrepreneurs refer the directories to a large extent. e.g. SSIs, Industrial, Manufacturers, Engineering, Chemicals, Drugs & Pharmaceuticals, Foreign Buyers & Exporters, Industrial Consultants, Textile, Processed Food & Allied Industries, GIDCs, Plastic & Polymer, Minerals, Biotechnology Industries, Industries Association Membership, Thomas Register of Indian Manufacturers, Kompass India and so on.

Clipping Service on Business Opportunity

English, Gujarati & Hindi Newspapers (Local, National & International) are subscribed on a regular basis and files are being maintained at the EDILIC. It helps the users in keeping track of the latest development taking place in different industrial sectors. Some of the useful clipping files are as under:

Entrepreneurship, Entrepreneurs, NGOs, SSIs; Agriculture, Agro Based Industry, Banking & Financial Institutions, Chemical, Drugs & Pharmaceuticals, Economics Environment Policy, Clusters, Economic / Environment & Policy, Natural Resources, Food Processing related etc.

Company Information

Profiles of most of the specific industries can be found in the Directories, Handbooks, Yearbooks, Periodicals, etc. Kompass and Thomas Register of Indian Manufacturers gives the list of addresses of machinery manufacturers of various products.

- Overviews and General Industry Information
  a. Asia Pacific Tech Monitor, Asia Pacific Ventures & Opportunities, Chemical Weekly
  b. Chemical World, Commercial & Industrial Guide, Economic Survey (Govt. of India),

Technology Related Information

Technological related information can be obtained through the following sources of information.

- Ahmedabad Textile Industry's Research Association
- Central Building Research Institute
- Central Drug Research Institute
- Central Food Technologists Research Institute
- Central Glass and Ceramic Research Institute
- Central Leather Research Institute
- Central Machine Tools Institute
- Gujarat Industrial and Technical Consultancy Organisation Limited (GITCO)
- Handbook Industrial Chemicals
- Industrial & Technical Consultancy Organisation of Tamil Nadu Ltd.
- Invention Intelligence
Market Information

Market information such as market surveys can be accessed through the following sources. For example, market surveys conducted by ‘Facts for You’ will be of immense help to the entrepreneur for new venture creation. Other useful resources are:
- Brand Equity and Special Supplement on Product (The Economic Times- Wednesday)
- Corporate Observer
- Directory of Industrial Consultants (Directory)
- Facts for You
- Industrial Researcher
- Industrial Statistics
- Investment Week Express (Financial Express)
- Market Survey (EFY Publications)
- National Directory of Consultancy Services
- National Directory of Consultants (Directory)
- Sarvekshana
- Special Supplements on Products (The Observer of Business & Politics)
- The Strategy (Business Standards- Tuesday)

Statistics and Financial Information

Statistical information, economic conditions of industries socioeconomic can be found through the following sources.


Online Database on Industry and Socioeconomic related

- KOMPASS (www.kompass.com) is one of the world’s leading Business-to-Business information sources of 70 countries. It helps to identify suppliers of products and services, potential partners, research competitors and analysis market sectors for potential opportunities.
- Indiastat.com provides an oceanic depth of India-specific socio-economic statistical facts and figures.
- Prowess (provided by Centre for Monitoring Indian Economy) contains a highly normalized database on over 17000 companies. The database is complemented with powerful analytical software tools to enable extensive querying and research.

Conclusion

For an entrepreneur, identification of a single or multiple project ideas is crucial for the purpose of converting the entrepreneurial urge into a recognizable form. Search for ideas is a beginning; an ice-breaker; a first step in the actual entrepreneurial journey. This paper will facilitate entrepreneurs, trainers, teachers, industry officers, small business consultants and others as a useful tool for selecting and identifying right kind of business opportunities.

EDILIC is continuously updating all the above resources regularly with latest information sources like directories, project profiles, product information, industry information, market information, innovative information, etc.
References

Use of Social Media in Libraries

Mehul Chauhan*

Abstract

This paper examines how Libraries can leverage on social networking and Social Media skills to provide dynamic library services in the face of dwindling economic resources. The unprecedented technological advancement of the 21st century, no doubt has impacted on library services globally and India in particular. The Social Media hype has gradually crept into the library profession with social sites such as Facebook, MySpace, Flickr, YouTube, Library Thing. It has become evident that our services will need to change to meet the growing needs of our end users. Libraries in India have been challenged like never before to render more proactive and more value added services to meet ever changing needs of our patrons. This paper is therefore, an attempt to examine the present scenario in library services delivery with these new and emerging technologies. Challenges faced by Indian libraries in the use of these Social Media are investigated and possible solutions offered.

Keyword: Social Networking, Libraries, Library services

Overview

A library network is broadly described as a group of libraries coming together with some agreement of understanding to help each other with a view to satisfy the information needs of their clientele or users for e.g. INFLIBNET.

Social connections have become very important and have improved the library profession tremendously in India. Social networking refers to a process of relationship building among a group with a common interest. Social Media emerged in India principally for the purpose of socializing. Facebook initially was used only for social discussions, however over time, particularly by the turn of the 21st century, the grouping of individuals into specific groups emerged. Professional groups started to spring up and within time the library profession had its own group with the sole purpose of sharing ideas and gathering first hand information regarding the profession. Undoubtedly, as a growing economy the use of these media often meet with challenges which are discussed in this paper and strategies for the enhancement of library services through these media have been of offered.

What is Social Media?

The best way to define Social Media is to break it down. Media is an instrument for communication, like a newspaper or a radio.

In Web 2.0 terms, this would be a website that doesn't just give you information, but interacts with you while giving you the information. This interaction can be as simple as asking for your comments or letting you vote on an article, or it can be as complex as Flixster recommending movies to you, based on the ratings of other people with similar interests. Think of regular media as a one-way street where you can read a newspaper or listen to a report on television, but you have very limited ability to give your thoughts on the matter. Social Media, on the other hand, is a two-way street that gives you the ability to communicate too.

Definition & Concept

Here's what they defined it as... “Social Media are primarily Internet-based tools for sharing and discussing information among human beings.” - Wikipedia

“An umbrella term that defines the various activities that integrate technology, social interaction, and the construction of words and pictures.” - Anvil Media

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1. Social Media is like going to a large party. Put on your best outfit, try to be entertaining.
2. Social Media = Sharing Caring Conversations Online
3. A place to hang out and communicate with your own networks of contacts, friends and peers about stuff that interests you
4. Social Media and practice of engagement and conversation online facilitate.
6. It's a new group of online media which share things like openness, participation and conversation.
7. It is a Media that allows discussion and interaction, as opposed to broadcast only.
8. 'The Internet's original purpose not a new phenomena' but there are other forms of 'offline'
9. Talking online with people you don't know in the hope that they'll become customers!
10. A set of websites that allows users to directly interact with each other
11. A place where people go connect with other people.
12. No holds barred informal networking and content sharing
13. Internet tools developed and defined in part by the people who use them and that connect those people in some way.
14. Social Media is an open platform, free form, uncensored conversation between millions of people worldwide without borders.
15. Something non-institutional involving a level discursive playing field.
16. Social Media is getting a msg across in few words as possible, in as little time as possible, to as many people as possible
17. Engage, share, spread, cooperate, interact, learn, enjoy
18. An online communication community where networks formed by the members shape the flow and formation of the content?
19. Social Media is how Internet changed social networking by using various different web tools to communicate socially.
20. It is a thing of opposites; compelling and annoying, time wasting and time efficient, useful and useless.

**Need for conducting a Survey**

A Survey to study the use of social media in libraries in Gujarat would help:

1. To explore the respondent's attitude towards the use of social media in marketing of library resources and services.
2. To provide possible implication of social media for marketing library and information products and services.
3. To investigate the problems in utilizing social media for marketing purposes in libraries.

Librarians have found that using social media in libraries helps to:

<table>
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<tr>
<th></th>
<th>Market of library product and services</th>
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<tr>
<td>2</td>
<td>Marketing programs and services for different users</td>
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<td>3</td>
<td>Modernize the library image and e-reputation</td>
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<td>4</td>
<td>Reach a new audience of potential users</td>
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<td>5</td>
<td>Push library news and press release</td>
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<td>6</td>
<td>Provide quick updates to users</td>
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<td>7</td>
<td>To build discussion groups and collaborative work</td>
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**Guideline about Social Web**

It is easy to confuse Social Media with social news because we often refer to members of the news as "the media." Adding to the confusion is the fact that a social news site is also a Social Media site because it falls into that broader category. But social news is not the same thing as Social Media anymore.

**Social Media Websites**

Here are some examples of Social Media websites

- **Social Bookmaking.** ([Del.icio.us, Blinklist, Simpy](#)) Interact by tagging websites and searching through websites bookmarked by other people.
- **Social News.** ([Digg, Propeller, Reddit](#)) Interact by voting for articles and commenting on them.
• **Social Networking.** ([Facebook](https://www.facebook.com), [Hi5](https://www.hi5.com), [LastFM](https://www.last.fm)) Interact by adding friends, commenting on profiles, joining groups and having discussions.

• **Social Photo and Video Sharing.** ([YouTube](https://www.youtube.com), [Flickr](https://www.flickr.com)) Interact by sharing photos or videos and commenting on user submissions.

• **Wikis.** ([Wikipedia](https://www.wikipedia.org), [Wikia](https://www.wikia.com)) Interact by adding articles and editing existing articles. These websites are not the only Social Media websites. Any website that invites you to interact with the site and with other visitors falls into the definition of Social Media.

**Social Media** refers to the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks.

1. **Andreas Kaplan** and Michael Haenlein define Social Media as "a group of Internet-based applications that build on the ideological and technological foundations of [Web 2.0](https://en.wikipedia.org/wiki/Web_2.0), and that allow the creation and exchange of user-generated content.

2. Furthermore, Social Media depends on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. It introduces substantial and pervasive changes to communication between organizations, communities and individuals.

3. Social Media differentiates from traditional/industrial media in many aspects such as quality, reach, frequency, usability, immediacy and permanence.

4. There are many effects that stem from internet usage. According to Nielsen, internet users continue to spend more time with Social Media sites than any other type of site. At the same time, the total time spent on Social Media in the U.S. across PC and mobile devices increased by 37 percent. From 88 billion minutes in July 2011, it has increased to 121 billion minutes in July 2012.

5. Much of the criticism of Social Media is about its exclusiveness as most sites do not allow the transfer of information from one to another, disparity of information available, issues with trustworthiness and reliability of information presented, concentration, ownership of media content, and the meaning of interactions created by Social Media. However, it is also argued that Social Media has positive effects such as allowing the democratization of the internet while also allowing individuals to advertise themselves and form friendships.

6. Most people associate Social Media with positive outcomes, yet this is not always the case. Due to the increase in Social Media websites, there seems to be a positive correlation between the usage of such media with cyber bullying, online sexual predators and the decrease in face-to-face interactions. Social Media may expose children to images of alcohol, tobacco, and sexual behaviors.

7. **Geocities**, created in 1994, was one of the first Social Media sites. The concept was for users to create their own websites.

8. **Facebook** is a key example of a Social Media site, with over one billion active users in October 2012.

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**Managing Social Media**

There is an increasing trend towards using Social Media monitoring tools that allow marketers to search, track and analyse conversation on the web about their brand or about topics of interest. This can be useful in PR management and campaign tracking, allowing the user to measure return on investment, competitor-auditing and general public engagement. Tools range from free, basic applications to subscription-based, more in-depth tools.

The honeycomb framework defines how Social Media services focus on some or all of seven functional building blocks. These building blocks help explain the engagement needs of the Social Media audience.

For instance, LinkedIn users are thought to care mostly about identity, reputation and relationships, whereas YouTube's primary features are sharing, conversations, groups and reputation. Many companies build their own social containers that attempt to link the seven functional building blocks around their brands. These are private communities that engage people around a more narrow theme, as in around a particular brand, vocation or hobby, rather than Social Media containers such as Google+ or Facebook and also Twitter. PR departments face significant challenges in dealing with viral negative sentiment directed at organizations or individuals on Social Media platforms, which may be a reaction to an announcement or event.

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**How Social Media Works in a Library**
• **Facebook:**
  Most popular now because it is librarian-friendly, with many applications like JSTOR search, World Cat, and much more. Librarians can interact with users to know their information need. Libraries try to link some of these specialized library applications to Facebook.

• **MySpace:**
  In academic institutions where the students are; libraries have taken advantage of this site to post, calendar, custom catalog search tools, and blog features to increase their presence.

• **Blogs:**
  Here, librarians can periodically post messages; share information on a particular subject or issue, and allow users to contribute to content. They can write articles, news on topical issues and expect an instant reaction from their users.

• **Wikis:**
  Is a free online encyclopedia that gives a background knowledge and definition of concepts. It offers a platform for users to access, edit and contribute to content. This is a collaborative web page for developing web content.

• **LinkedIn:**
  Librarians can get patrons connected with specialists in their particular field of interest via LinkedIn. Librarians can use this platform to render specialized services such as Strategic Dissemination of Information (SDI).

• **Twitter:**
  A micro blogging application, to keep staff and patrons updated on daily activities, like frequently updated collections. Users can utilize this platform to type in short messages or status update. Librarians can use this platform to give users firsthand information on the on-going national elections. Users can send Instant Messages (IM) on complaints or ask questions on a particular issue and get a feedback on the spot using twitter.

• **YouTube:**
  In institutions in India, events such as important highlights of inaugural lectures, conferences and workshops are disseminated via the YouTube.

• **Flickr:**
  Librarians can use this tool to share and distribute new images of library collections. Cover page of new arrivals of both books and journals can be disseminated to users via Flickr.

• **Library Thing:**
  A tool that enriches the library OPAC. Once an account is created, a list of books with ISBNs is sent to Library Thing which sends back a piece of code which is pasted into the footer of the Library OPAC.

Librarians can utilize this to send a list of current publications to users. In the changing library environment today, libraries are using the latest technologies and trends to make their services popular and user friendly. The concept of a library as physical place where one can visit to get information is rapidly changing to a social cyberspace where users access, communicate and contribute to existing knowledge. This is because the modern library of the 21st century is characterized with collective knowledge creation and enabling technologies; and also a movement away from the old stereotype, conventional and one directional library services to users to a more dynamic, two-way communicational network environment.

**Social Networking: a Platform for Open Access to Knowledge**

Social networking sites are constantly promoting open access to knowledge. Open access is the term used to refer to resources that are openly available to users with no requirements for authentication or payment. It is a model that presents free access to publications. In an open access platform, users are not charged for accessing articles or other resources, and are free to read, download, copy, distribute, print, search, or link to full texts of these resources, provided they do not violate copyright rules, search, browse, filter, find, collaborate and have online open access to knowledge and contribute to web content.

**Social Networking Opportunities for Libraries**
Social networking presents some important opportunities to libraries which include marketing of library services and reference services.

- **Marketing of library services** – the growing population of patrons and librarians that make use of social networking is an indication that it is an ideal vehicle for marketing the services of libraries to patrons. Flickr is an excellent marketing tool which could be used by librarians to sensitize the users on general library services. Most students are not aware of the different services offered in the library such as reservation of books, reference services and Selective Dissemination of Information (SDI). Librarians can spread awareness of library services to those who may not be aware of these services via Social Media. Librarians can also develop subject-specific blogs and play a leading role in advocating the use of blogs for scholarly communication and commenting on research findings.

- **Reference Services** – the use of social networking tools enable librarians to identify library patrons on the social cyberspace and pro-actively provide the type of information that would normally result from reference service. Social networking tools are not only being used as a vehicle for promoting services, programs and new resources but they are also used for reference service. Students are using tools like Ask a Librarian, and twitter to ask questions in “real time and this is assisting in promoting the library as a relevant, efficient and helpful place.

**Future Roles of Librarians**

Libraries play important roles in providing information for research and access to knowledge. In order to stay relevant in the socially networked environment and meet the growing needs of their users, libraries therefore need to pro-actively embrace the new technologies and face the challenges for delivering better services. Librarians are responding to the popularity of social networking sites and their expanding role in the creation, use, and sharing of information by engaging them as a central medium for interacting with library patrons and providing services to meet their information needs. The ways in which people communicate, acquire and share knowledge, will inevitably have an impact on the library, its services, and its staff. Librarians should follow the public conversations, posts, updates, and events of these key individuals, and pro-actively offer advice, resources, and help. They should act as active participants of the social space and be able to identify the needs of the members of the library communities and to provide solutions by offering information, links to the websites that are relevant to their information needs; and even direct offers of help.

There is an urgent need for libraries to adopt the new social networking tools in their services as a strategy to embrace change while promoting a participatory role for library users in knowledge creation. The growing use of social networking tools calls for librarians to develop 21st century skills on digital technologies. Libraries can connect their social networking sites with their library Websites to links to their catalog, chat reference pages, research guides, calendar of events, news etc. Some of the roles of the social networking librarian include: understanding and articulating the nature of social networking sites, creating webpage and content, establishing friendly user interface over the network, creating online database management, evaluating and applying information, and assisting users with skill acquisition. Other skills for a social networking literate librarian include: searching and navigating the web, creating social network space, teaching, and providing quality online library services.

1. **Identity management** – Librarians should be able to examine profiles of users to mirror their information needs and match them with the library collections.
2. **Network awareness** - Should be able to share views and create awareness of the different social network sites and their uses.
3. **Expert search** – The 21st century librarian should be an expert in web navigation; able to find friends of friends, and potential library users with common interest.
4. **Contact management** – Librarians can cross-link people and ideas among the conglomerate of different groups.
5. **Context awareness** – should be diversified in knowledge and able to link information to people’s profiles. The important characteristics of social networking (SN) in libraries are:
   - **Participatory** - Users have the opportunity to actively engage in the construction of knowledge rather than being passive consumers of content;
   - **Educative** – Users are kept abreast of the latest developments and can have open access to knowledge;
   - **Collaborative** – Social Network ensures knowledge sharing, establishes communication link with experts and allows users to develop a team working skill;
   - **Fascinating** – It is inspiring, interesting and users can be engrossed in the use of social network sites; some users garner information with these sites in an easy and unencumbered manner; and
Flexibility – Easy content creation and sharing, easy to update files and personal contact.

Library as Educator

Libraries should play important roles in educating patrons about the new technologies and the social networking skills. We can educate our users on new skills and competencies needed to flourish in the new environment. Users need to know how to navigate the web as new method of learning requires a form of connectivity with other people as knowledge is no longer acquired in a linear manner. Librarians can and should educate patrons on the use of these social networking tools to adapt to new ways of accessing, communicating and sharing knowledge. Brilliant use of the social cyberspace promotes opens access to knowledge.

Challenges of Social Networking

- **Lack of Awareness** – Most librarians in the developing countries are not aware of social networking services, even the few that are aware are still struggling to find out the productive uses of these sites for library services. Users are also not aware of the protocols involved in social communication. Many students and possibly even some of the academic staff may be unaware that there is a subject specialist in their discipline. It is important for librarians to initiate contact with clients and experiment with developing a “public self”.
- **Bandwidth problem** – Most institutions have limited bandwidth to support this practice. Poor connectivity can frustrate effective online participation.
- **Technophobia** – Many librarians and users are afraid of handling computers. They make the traditional library services their comfort zone and are not eager to embrace change.
- **Lack of maintenance culture** – Maintenance culture is seriously lacking in most institutions in developing countries. The few available technologies are in moribund conditions that may not support remote access to information.
- **Unreliable power supply** – The low supply of electricity discourages people from participating in the online forum.
- **Lack of training of staff** – Most librarians lack the 21st century skills that could be required to adopt the social networking tools for effective library services.
- **Copyright Issue** – The free access to information where people copy, paste and edit without acknowledging the authority is a serious challenge to copyright management.

Advantages of using Social Media

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<tbody>
<tr>
<td>1</td>
<td>Social media is integral to market the library</td>
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<td>2</td>
<td>Social media can capture potential users of the library</td>
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<tr>
<td>3</td>
<td>Social media offers more than just traditional ways of marketing library services</td>
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<tr>
<td>4</td>
<td>Social media helps students to use libraries</td>
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<tr>
<td>5</td>
<td>Social media allows users to create, connect, converse, to contribute, vote and share information</td>
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<td>6</td>
<td>It helps libraries to get closer to the users</td>
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<td>7</td>
<td>It helps libraries in building collaborative network with the users</td>
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<tr>
<td>8</td>
<td>It is a great way to grab the attention of new users</td>
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<td>9</td>
<td>Social media helps students in locating library resources</td>
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<td>10</td>
<td>Social media facilitates knowledge sharing</td>
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<tr>
<td>11</td>
<td>Social media helps to feed user with information</td>
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<td>12</td>
<td>Social media helps in promoting distance learning</td>
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Disadvantage or Problems of Using Social Media

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<tbody>
<tr>
<td>1</td>
<td>Too many social media tools to learn</td>
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<td>2</td>
<td>Lack of time to use social media</td>
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<td>3</td>
<td>Lack of privacy and identity theft</td>
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<td>4</td>
<td>Confidentiality of information</td>
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<td>5</td>
<td>Lack of knowledge how to use it</td>
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<td>6</td>
<td>Inadequate funding for libraries</td>
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<td>7</td>
<td>Inadequate library staff</td>
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Conclusion

The above identified challenges could be solved through the following strategies:

- Organizing public awareness forum such as library orientation, conferences, symposia, workshops to create awareness and educate librarians and users on the social networking services and applications.
- Embracing current change in order to remain relevant and adapt to the new ICT driven environment.
- Imbibing a maintenance culture so as to manage the few available ICT facilities effectively.
- Provision of stable power supply will encourage and facilitate the effective use of these tools.
- Pro-active training of librarians to acquire 21st century skills to adapt to the changing ICT environment.
- Government should take an active role in providing ICT facilities to institutions.
- Educating the public on the issue of copyright law and violation.

In conclusion, this paper has tried to examine the concept of social networking and its application to library services for a pro-active awareness and training to educate both the librarians and the users on the invaluable importance of utilizing social networking in library services.

References


Increasing Services in Academic Libraries

Dr.C.K. Patel, Librarian, DDIT, Nadiad and Dr. K.D.Tandel, I/C University Librarian, NAU, Navsari

1.1 Preface

21st century is an age of knowledge. Libraries have played an important role in organization and utilization of information. The library is the heart of an education institute. Knowledge is power and countries conducting research based on information can develop themselves. Today more up to date information is available due to research. Due to the exponential growth of information, it is difficult for any library to store all information and satisfy the needs of library users. Using IT in libraries is a blessing. Modern libraries can satisfy the needs of library users by providing e-resources, resource sharing, library networking and consortia. Even in absence of sufficient IT facilities in libraries, by having a will to serve and with proper planning librarians can provide satisfaction to library users. This paper deals with this ideology.

1.2 Definition of Academic Library

“An academic library is a library that is attached to an academic institution above the secondary level, serving the teaching and research needs of students and staff”

These libraries serve two complementary purposes: to support the college’s curriculum and to support the research of the College / University faculty and students.

1.3 Functions of Academic Library

1. To procure, process and provide all documents as well as non-documents that can be the source of learning. Documents are in the form of books, magazines, dictionary, encyclopedias, directories, etc. Non-documents are photographs, charts, globes, films, filmstrips, videotapes, transparencies, slides, CD-ROMs, multi-media discs, etc.

2. To provide support and guide the students in finding the source of information they are looking for.

3. To act as a resource centre.

4. To provide information to aid education.

5. To facilitate the need of teachers and students for community development in the society.

6. Professional development of teachers.

7. Personality development.
10. Self motivating environment.
College libraries can provide following services even in absence of efficient IT infrastructure. It will be helpful to increase the use of college libraries.

1. Working hour’s: Libraries working hours and reading hours should be extended for longer duration.

2. Issue and return of books should be on demand.

3. Library orientation programmers for newly admitted students should be arranged.

4. Books exhibition: Books which are rarely used and mostly used can be exhibited.

5. Information about the total library collection and services which are given by the library should be displayed in a proper way.

6. Simplify the rules and regulation for library users.

7. Peaceful, airy, clean and well equipped reading room should be provided.

8. Overnight issue of journals service should be given by the library.

9. Catalogue should be author wise, title wise and subject wise and it should be updated regularly.

10. Classification of books should be based on user’s friendly techniques.

11. Project reports prepared by students should be stored carefully with bibliography.

12. An arrangement of institute repository and its bibliography should be prepared.

13. Student participation: Students can suggest books and journals to be purchased.

14. User’s education should be organized.

15. Reading habit can be increased by arranging debates, essay completions whilst celebrating Gitajayanti, Swami Vivekanand Jayani, Teacher’s day, Librarian’s day etc.

16. CAS (Current Awareness Service): A library can display syllabus related articles, news of News Papers, a list of newly purchased books and journals on notice board, etc.

17. By conducting talks on My Favorites Books, students can be informed regarding the content of many books.

18. Experts Lecture: Lectures by experts could be arranged on various topics like career counseling, personality development etc.

19. Harmonious relationship: Through establishing harmonious relationship with surrounding libraries, collaborative services and inter library loan services can be provided to library users.

20. Best Reader Award: Through such awards, library users can be increased.

21. A librarian can arrange once or twice a week lecture in classroom regarding the