Emerging Challenges in Academic Librarianship & Role of Library Associations in Professional Updating

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Abstract

This paper intends to discuss the challenges posed by the emerging trends and technologies and to examine their implications to academic librarianship.

Part I of this paper analyses the new challenges posed by the contemporary environment which are results of ICT and digital revolution which, in turn, call for developing new competencies and skills as well as a new set of proficiencies.

Part II principally assesses the role played by library associations in preparing the professionals to face challenges offered by trends that emerge from time to time. It is done with the aid of a case study of the Indian Association of Special Libraries & Information Centres (IASLIC), Kolkata (India).

This case study 1) lists 'Training Programmes', 'Seminars & Conferences', and 'Study Circles' organized by IASLIC 2) examines critically whether IASLIC has achieved the objectives, 3) evaluates the relevance of these activities vis-a- vis the emerging demands and 4) points out areas to be taken up for future consideration.

It is found that the modern academic librarian, besides the common attributes, should be technology savvy, and eager to learn and adopt any technology development for the benefit of the users. Regular updating of the professionals is sine qua non. The paper examines the situation in India. It's found that professional bodies like IASLIC did play a yeomen's role in bringing up India to the forefront of global librarianship.

It is concluded that India does need a well-laid out policy and programmes of updating and equipping its librarians continuously.

Key words: Academic Librarianship; Emerging Challenges; Library Associations; Professional Updating; ICT

1. Introduction

Paradigm shift triggered by application of ICT appears to be a common phenomenon in the 21st Century in respect of service sectors like banking, insurance, railways, and airways. It helped to improve and expand their operations. It's all the more true in case of library and information service.

The emerging challenges posed by the contemporary environment are many in number. These challenges are posed by application of ICT, manifested in many forms or notions like digital repository, open access, user centric services (e-learning, e-teaching, information literacy, orientation programmes), web-based library services, application of social networking, library cooperation including consortia, and legal issues. The scholar community tries hard to adopt the existing and catch up with the newer forms to facilitate their business of learning/teaching. Librarianship, not to be left behind, as is the tradition, strives to achieve new competencies and skills as well as explore how these can be put into use for furthering library and information service.

Besides the felt need for catching up with /exploiting the facilities extended by the latest technology for offering high quality service, there other is another compulsion, of a fundamental nature, that of constant cutting of cost i. e serving more with lesser finance and staff.

Academic Librarians, as they are more exposed to the ever vibrant scholarly community, should be and are necessarily the torch bearers of the paradigm shift. The following paragraphs will discuss the challenges posed by the emerging trends and technologies and examine their implications to academic librarianship.

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2. The Trends in the Transformation of Libraries

The transformation of libraries from store houses to information institutions and later to knowledge centres started with World War II. The world, especially the Western part, was in a hurry to rebuild the devastated economy. The setting up of massive number of new industries and the new discoveries attributed to that period demanded a sudden thrust in publications in science and technology which eventually led to the so called 'information explosion'. The libraries, quick to respond to the sweeping demands, took a new *avatar*/ birth in the form of information institutions; drifting away from traditional job of servicing of books and documents to supplying of information contained in them.

Initially, this service was confined *to controlling and location of information* paving path for bibliographical services/ abstracting services/ indexing services whereby chaos in organization and dissemination of the 'flood of information' could be overcome. Eventually, responding to the exponential growth and complexities of information service, a *shift from controlling tools to processed (condensed) information* took place leading to supply of information, analyzed information, consolidated information, and repackaged information. Some of the products of this development were reviews, trend reports, technical digests, and state – of - the -art reports. In short, the information workers sifted through large masses of data, collected relevant data, reviewed each field and distilled information in a manner the information could be used by scientists/engineers without further analysis or evaluation.

This evolution led to emergence of three trends, a) Information workers turning up as information creators - The information workers while collecting and analyzing data come across opportunities to deepen their knowledge and create information as a bye- product of their every-day job; b) Focus on individual- oriented customized information catering, as the term implies, to an individual's specific information needs rather than general needs of users and c) Knowledge management —the present librarian on shifting from collection management to knowledge management exploit not only collections held internally, as expected, but also design and development innovative process services and products by effective use of ICT. ICT, today, provides a challenge as well as an opportunity to librarians to cope up with the unstoppable paradigm shift.

2.1 Technology -triggered Paradigm Shift

This paper will dwell upon the third trend viz., the emerging trends and challenges triggered by technology, and thereby the paradigm shit in the delivering of goods. The technology-triggered paradigm shift is a phenomenon of the past one to two decades. The thrust has been so intense that, if one is unprepared or uninitiated, he is left flabbergasted and helpless and can be swept off his feet. These developments are principally digitization and related issues like metadata standards, copyright issues, preservation etc, networking, storage solutions, knowledge management, multimedia technology, automation and standardization, institutional repositories, consortia approach and cooperation/sharing, online journals and their management, communication skills including technical writing, e-publishing, webpage hosting, and the like. The latest arrival has been usage of web 2.0. Thus the demand on librarian for continuous life-long education and updating is really tremendous. Similarly the demand on his time, longer and lonely hours, too is no way less tremendous.

2.2 Emerging Newer Trends and the Academic Librarian

We have mentioned in the immediately preceding paragraph of emergence of technology -triggered paradigm shift. One may say applications like automation, web, internet, institutional repositories etc are old stories. Hence we do not intend to go into these. The scene has advanced much more. Newer trends have set in. We shall discuss below the emerging newer trends and their implications to academic librarianship.

1. End of digital information as an additional format and its emergence as the only format — We are entering a decade where publishers start talking in terms of online journals only, online books only, and online music only. It's a situation where information is not being visualized in physical form but as data streams. This shift in the outlook of the publishers is nothing but a complementary response to the increasingly changing shift of the user from physical to online form of resources. The recent decision of the INDEST (Indian National Digital Library in Engineering Science & Technology) to subscribe to online journals only from 2010 for the consortium members is a case in focus on the changing choices of the academic fraternity. Development of JStor (retrospective digitizing of core journals) in late 90's and the later effort of Google, Microsoft etc towards massive digitization of books heralded this shift, ably helped by fast development of high density storage facilities and communication. The consequences are two-fold, a) bypassing of library as a middleman consequent to web access to information held in the sites of the producer of information and b) losing of identify of library as a store of information as the trend is towards holding only a small archive of important print materials as well as institutional publications. Library is, in short, emerging as a guide and facilitator.

- 2. *Ownership vs Holding*: Though libraries do own information (digital) that they purchase but no longer store them. Information is accessed locally by connecting to remote servers like publishers' websites or database suppliers' servers. The days of downloading contents or receiving them in form discs for preservation is no longer practiced.
- 3. Prominence of Open Content Open content movement started a decade ago is expected to enter the main stream. For instance two cases are cited from India. The Indira Gandhi National Open University (IGNOU) has, today, made all its course materials through the web, accessible to anyone, free. Similarly, National Programme on Technology Enhanced Learning (Min. of HRD, Govt. of India) has made curriculum based videos and web courses freely available to all technical schools in India. Besides saving on education cost or providing access to the unreachable regions, it points to the changing choices of people on when, what and how to learn. The Academic Librarian should be recognizing this new trend and abet promotion of open learning.

Emergence of Informal Learning: As in the case of other social sectors like banking or railway booking which facilitates operations by patron from anywhere, anytime, the new expectations about learning is that one should be able to study wherever and whenever he wants to. People want faster approach to information in the context of increasing demand on their time by home, workplace, and social network. Hence there is an emerging demand for informal learning, and the academic library needs to take cognizance of it.

Sense Making: Another issue connected with internet resources is the challenge offered by abundance of resources available through internet and the sense making and credentialing. Sensemaking is the ability to assess the credibility of information or judge the value of information people find online. Here the educators as well as the Academic Librarians are placed on equal footing in guiding the users.

Cloud-based Technology: Yet another notion the librarian should take into account is the growing model of browser-based software that is device-independent. This cost saving system (while some challenges still remain), facilitated by cloud-based technology, is going to stay. The significance of this development to the academic librarian is the total shift by to computers and internet by everyone in the user community.

4. *Emerging Predominance of E-books* -- E-books have been around for some time, and it has been believed that they would have a limited impact, that they would not replace print books at any cost. Later e-books have been conceded more space, by way of apportioning substantial budget vis -a - vis print books. Today the trend seems to be reversed as one talks of not going all out for e-books because of the risk of leaving some of the patrons behind! It indicates a dramatic swing in their acceptance especially by the student community. Aided by convenient electronic reading devices, easy to store and

carry in hundreds, they promise to reduce cost and be more environment friendly (juxtapositioned against paper!). Hence, it's a field the Academic Librarian should be sensitive about.

- 5. Strong Surfacing of Resource Sharing
 - a) Consortia movement Result of emergence of the digital environment and connectivity, consortia movement provided a happy situation for all involved, the libraries (economies of scale and bargaining power leading to access to unimaginable number of resources), the user (vast number of resources at the click of the mouse, accessible beyond constrains of time and space) and publishers (increased visibility, and relatively inexpensive operation). Libraries that have remained principally a local unit so far, except for the limited sharing of resources through inter -library loan service, have suddenly become part of a network, confident to meet demand of users for information or document at high speed. An Academic Librarian should be proficient with the intricacies of operation various consortia in order to crop the best advantage.
 - b) Interdisciplinary nature of studies/works An emerging trend is the interdisciplinary nature of studies/works and cross-campus collaborations aided by emergence of new tools (often free). Such collaborations have become common place paving path for more publications. It is seen now that even first year students tread into research and publication.
- 6. *Application of Web 2.0 and 3.0:* Web 2.0, also known as Library 2.0, is usercentred web, where blogs, wikis, social networks, multimedia applications, dynamic programming scripts are being used for collection, contribution and collaboration on the web. The underlying principle is 'share the resources collectively'. Application of Web 2.0 in libraries has taken the libraries into a new generation. It is important for the librarians to experience Web 2.0 tools from a user's perspective and use these tools in modernizing library services.

Alas, if you have not yet used web 2.0 tools, because web 3.0 is knocking at the doors!. Web 3.0, also known as semantic web, is smarter and can understand what you want. The searcher no longer need to wade through or filter out search results but get the target information straight by working on a combination of information based on requirement as he understands and preferences he wants i. e one needs to be less specific and more natural with his queries. This obviously takes away the human factor that we once thought could not be replaced in the Library. However, this technology should aid the Academic Librarian in answering queries faster and accurately.

7. *Virtual Reference* - Virtual reference is a situation where users communicate with the Reference Librarian electronically, often on real time, over computers and internet without being physically present. It is yet another situation where the physical presence of the patron is diminishing. The Reference Librarian and patron communicate over e-mail, instant messaging, video conferencing, chatting etc. The increasing disappearance of the patron from Library (reference requirement used to be one strong reason for him to come around to

the Library) does hurt the Librarian. However, it's another instance of doing one's daily business in a better way but basically in a different way.

- 8. *New Form of Scholarly Corroboration* Lest you should be left behind, the Academic Librarian should understand and recognize the emerging form of scholarly corroboration. This new form of authorizing/publishing/researching recognizes reader rating, inclusion of influential blogs, tagging, incoming links, and retweeting. These forms of scholarly corroboration (like giving links to blogs in research papers) are being considered for incorporation by important science publishers today.
- 9. Growing importance of Mobile Technology and Simple Augmented Reality
 - a) Mobile learning implies participating in learning activities anywhere, at anytime. It has been recently announced that school children in the US were on the way to use mobile technology for learning. For instance in India, the Indira Gandhi National Open University has facilitated download of course materials on to the mobile. Mobile technology offers vast potential as it allows instruction not only in the class room but also extra-mural, in all types of pedagogy like face-to-face, online and blended.
 - b) Simple Augmented Reality required specialized equipment once and, hence, used to be expensive. Today it is getting portable on laptops and smart phones and, hence, cheap. It's getting widespread use in campuses. It is going to replace the great videos of one day and the way they were made.
- 10. *New Technologies* The Horizon Report: 2010 Edition has singled out two technologies to watch in the near future. They are Gesture-based Computing and b) Visual Data Analysis.
 - a) Gesture-based Computing (already much talked about) can recognize and interpret body motions i. e one needn't learn to work with the computers but the devices can work reacting to one's gestures.
 - b) Visual Data Analysis is an emerging field, a blend of statistics, data mining and visualization. It makes it possible for anyone to sift through and display and understand complex concepts and relationships. Presently it is used in scientific analysis in complex processes in laboratories by scientists/engineers. The modern development will hand it over to anyone to delve into this field, once unimaginable.

It's not known how these technologies are going to affect the library service and the way it is organized. But to be aware of them is important as they are going to enter the class room tomorrow.

Ultimately it should be stated that the developments discussed are not a continuation or a better way of doing the things in the library, traditionally done so far. It is basically a different way of doing one's business of running a library and

information service. Hence the challenge demands a radical change in one's outlook as well as knowledge of technology.

II 3. Role of Library Associations in Updating the Professionals

Having said that librarians should undergo a radical change in their outlook as well as knowledge of technology, it needs to be examined how one achieves all that; by self-education and self-motivation or with external help. It is but true that the former is not a feasible proposition for all. External assistance is required in respect of the vast majority of the professionals. In the following paragraphs we shall principally examine the role of library associations in preparing the professionals to face such challenges from time to time. It is done with the aid of a case study of the Indian Association of Special Libraries & Information Centres (IASLIC), Kolkata (India).

India, a vast country nurturing thousands of librarians, lacks in formal establishments offering regular refresher programmes creating opportunities for updating of professional competencies and skills. It's true that the University Grants Commission (UGC) does conduct regular refresher courses for the university and affiliated college library staff. But that's only a fraction of the population. The requirements of the rest are met generally by library associations (national and regional) and learned librarians through their parent institutions (mostly personal initiative). Amongst them, Indian Association of Special Libraries & Information Centres (IASLIC) has rendered a commendable service.

3.1 Indian Association of Special Libraries & Information Centres (IASLIC)

Indian Association of Special Libraries & Information Centres (IASLIC), in existence for 59 years, is an all-India national library association that caters to the Academic Librarians. Its birth coincided with the emerging era of 'information explosion' of 1950s. In other words, the Association as formed out of the felt need by the founding fathers, who belonged to general library associations, to support and cater to the special type libraries, information centres and professionals working in the background of information explosion.

One of the objectives, as laid down in its constitution, is to improve the technical efficiency of professionals. Towards achieving this, the Association has been involved in a variety of activities like 'Education', 'Special Interest Group activities', 'Seminars & Conferences', 'Study Circles', 'Lectures' and publications. Amongst them the following viz., 'Education (Training programmes)', 'Seminars & Conferences', and 'Study Circles' have a direct bearing upon updation of professional knowledge and skills.

The case study (in the following paragraphs) intends to 1) list 'Training Programmes', 'Seminars & Conferences', and 'Study Circles', organized by IASLIC 2) examine critically whether IASLIC has succeeded in meeting the skill/competency creation needs of academic librarians at all turns of Library and Information Service development, 3) evaluate the relevance of these activities vis-a- vis the emerging

demands through a survey of the cross-section of professionals, and 4) point out areas, if any, to be taken up for future consideration.

1. Training /education programmes of IASLIC

A major function of a library association is promotion of professionalism and standards. Education/training activities are one of the means of promoting professionalism.

IASLIC upholds educational activity as its apex activity. It has been carried out in form of various training programmes. Education or manpower development programmes have a forward and backward thrust. While it trains professionals to meet demands of emerging trends/techniques, it also helps them with improving on old methods which tend to become obsolete over the time.

The analysis covers 35 years (1974-2009) covering all the education/training programmes under taken by IASLIC. [It may be pertinent to say that there were no manpower development programmes in the first 20 years of its existence i e 1955 to 1973] Altogether 41 programmes were conducting during this period. As it befits its objectives, major part of the programmes was in application of ICT (19 in number) and Information Processing & Retrieval (8) (vide Table 1). The Information Processing & Retrieval programmes were organized mainly in the 80s and the ICT programmes in the 90s whereby it can be said that the Association was trying to meet the contemporary demand. Others (in the descending order) were management (7 in number), and application of A-V in libraries (4 in number). The Association conducted a one year post – B. Lib. Sc. Diploma in Special Librarianship & Documentation (its first programme in 1974-75). However, it was discontinued due to poor response.

A period-wise analysis will show that the number of programmes conducted, of late, has been declining. While was 11 programmes during 1974-85, it climbed to 15 in the next decade of 1986 – 95 and declined to 10 in the ensuing period of 1996-2005. The last 4-year of 2006-09 had hoisted 5 programmes.

Looking at the region-wise break up of the programmes, it is found that they were extremely skewed in favour of East of India. Out of the 41 programmes, 35 (85.36%) were held in that region, which adversely affects the all-India character of the Association.

Looking at the findings as given above, it is wondered whether there was any planned and systematic approach from the side of IASLIC in its manpower development programme. It looked more like sponsor-driven and depended on enthusiasm of a few enterprising people. However they were whole-heartedly facilitated / supported by IASLIC, and the programmes were definitely pertinent to the demands of the time.

Had not IASLIC, few professionals (in their individual initiative) and some institutions come forward (though at sporadic manner) the case of manpower development in India in the modern age of ICT would have been disastrous. India needs an arrangement for planned, sustained manpower development as in developed countries like the US, UK where library association do commendable jobs and, thus, help management and personnel of different libraries to do their work systematically.

Main subjects	Training programmes (with numbers in parentheses)	
Application of ICT	Computer Application (2)	19
	Library Software (10)	
	Webpage Designing (1)	
	DSpace (2)	
	Resource Sharing (1)	
	Information Management Technology (3)	
Information Processing and	Indexing (3)	8
Retrieval	Thesaurus (3)	
	UDC (1)	
	Information Access (1)	
Information Service	Information Consolidation (1)	2
	Access to Social Science Information (1)	
Management	Management (2)	7
	Marketing (1)	
	Customer Satisfaction (1)	
	Reprography (1)	
	Conservation & Preservation (2)	
Communication	A-V (3)	3
Library & Society	Special Librarianship & Documentation (1) [Diploma/ 1 year]	2
	Info. Literacy Competency Development (1)	2
	Tota	41

 Table -1

 Educational/Training Programmes (1974-2009)

2. Seminars/Conferences

Seminars/Conferences provided forum for mutual exchange of ideas and sharing of each other's experience in improving library service. In many cases one can trace origin of new activities at micro level, as a consequence to the librarian attending a conference /seminar. It is also true at macro level. For instance, the setting up of the National Social Science Documentation Centre and the compilation of Union Catalogue of Periodicals in Social Sciences can be traced to the recommendations of the 3rd IASLIC seminar at Lucknow in 1964.

IASLIC holds biennial seminars and conferences in alternate years. Contrary to what we have deliberated on educational/training programmes, it will be found that IASLIC has been performing excellently well in the area of organizing 'Seminars & Conferences' in respect of its contents, contemporariness and geographical distribution. The reason lies in the well- regulated process of selection of subject and venue at different parts of India.

The IASLIC conducted till end of 2009, 23 seminars and 27 conferences touching over 68 subjects. The topic-wise break –up is given at Table -2.

The number of seminars and conferences organized were more or less same (23 seminars and 27 conferences) and their spread over the decades has stabilized on

10 (one seminar/conference a year). While North India hosted the highest number of seminars and conferences (19 in number), South followed with 15 and East, 12. The West was far behind with 4 and North-East, none. Considering the geographical size or development of libraries in these regions, the pattern appears to be balanced. The weightage assigned to various topics in terms of seminar & conferences were in variance with those of Training programmes. Information service (19) and management (15) dominated the topics historically. However of late they have faded and 'Application of ICT' has come to the forefront from 1986 onwards. It is also pertinent that the charm of the old librarianship (Library and Society) maintained its relevance all through the decades.

Table -2 Seminars & Conferences (1956-2009*)

Period/Subje cts	Application of ICT	Information Processing and	Informatio n Service	Manageme nt	Information Communicat	Library & Society	Total
		Retrieval			ion	-	
1961-75		8[5 \$ +3 C]	7[3 \$ +4 C]	6[2 5 +4 C]	1[C]	7[2 \$ +5 C]	29[12 S +1 7 C]
1976-85	-	4[1 S +3 C]	8[3 S +5 C]	2[2 5]	-	2[1 S +1 C]	16[7 S +9 C]
1986-95	2[1 S +1 C]	1[S]	1[C]	5[3 S +2 C]	-	1[C]	10[5 S +5 C]
1996-05	1[C]	-	3[2 S +1 C]	2[C]	-	3[2 S +1 C]	9[4 S +5 C]
2006-09	3[1 S +2 C]	-	-	-	-	1[S]	4[2 S +2 C]
Total	6[2 5 +4 C]	13[7 5 +6 C]	19[8 5 +11 C]	15[7 5 +8 C]	1[C]	14[6 \$ +8 C]	68[30 5 +3 8 C]

*Conferences commenced in 1956 and seminars in 1961

S= Seminar **C**= Conference

3. Study Circles

Apart from the above-mentioned conferences, seminars & workshops, IASLIC used to organize 'Study Circles' on regular basis. Invited eminent speakers would deliberate on different specialized fields related to LIS. The statistics on study circles (vide Table 3) prove beyond doubt that IASLIC has placed ample emphasis on manpower development especially in computer application in LIS environment. These meetings provided a forum to discuss problems and new developments and served as a system of harnessing the intellectual growth in the profession.

Table -3 Study Circles

Main Subjects	Number of Study Circles		
Application of IT in LIS	49		
Information Processing and Retrieval	52		
Information Services	70		
Management	29		
Information & Communication	04		
Library & Society	88		
Total	292		

An analysis of the topics of discussion reveals that the Study Circles were tailored to discuss the most current developments and served to bridge the gap between what has been acquired conventionally by one and what were on the anvil. A close look at the list of Lecturers would also reveal that the experts came from other shores too whereby the scenario as existed outside India too was brought up for discussion.

3.2 Assessment and Suggestions

Of the three activities studied in this paper viz., Training/Education Programmes, Seminars & Conferences and Study Circles, it has been seen that Seminars & Conferences have been planned and executed with much thought and consultations and were above the board with respect to relevance or frequency or content. Study Circles, by its very nature, could not be subjected to serious control but automatically related to the most contemporary. However, Training Programmes were found wanting. Hence we attempted to make a study of these programmes by collection and analysis of data through questionnaire and interview methods. It covered respondents from all parts of India including those attended any such programmes sometime in their career or acted as resource persons.

The general rating on contents, duration and relevance of the programmes was found to be high i.e 'very good'. The opinions ranged like 'timely', 'well-organised.', 'enhancing the professional skill and relevant to the current environment' etc. They generally proposed continuation of the programmes like management (different aspects of management, management in new areas, customer satisfaction, MIS), information retrieval, information literacy, access to social science information, resource sharing, e-resources, website designing, open source movement, institutional repository, library software, ICT applications, conservation & preservation, indexing, thesaurus, UDC, and reprography.

New areas that were proposed: Continuing information service, continuing education programme, community information service, content management, industrial information, conservation of traditional biomedical knowledge, IPR in the digital era, change management, and self-development.

4. Conclusion

Paradigm shift triggered by ICT has been a common phenomenon in service sector but applied to library and information science it has been radical and fundamental. It's no longer considered as doing one's daily business in a better way but basically in a different way. The way the users want to learn, research, publish or do work does undergo drastic changes from time to time with advancement of ICT (many changes are in the anvil). Librarianship should (as the teaching community does) run along and should not lag behind in supporting scholarship. If he fails he would be rendered obsolete and the library irrelevant.

In the modern world of self-education and life-long education, librarian may be expected to keep abreast of the latest by his own. But it may not be case with all. Majority of them need continuing education support. Library associations all over the world especially the US and Europe play a crucial role in keeping librarians in readiness.

In India, opportunities of this kind has been few and far- fetched. In fact, this crucial issue has not been assigned the seriousness it deserved, and hence, it remained sporadic.

India, a vast country nurturing thousands of librarians and catching up with advanced countries of the world, does need a well-laid out policy and programmes of updating and equipping its librarians continuously. It will need formal establishments addressing this requirement.

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