

Capacity Building of LIS Professionals in Digital Environment

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Abstract

The paper defines the terms capacity & capacity building. Identified need for capacity building of LIS professionals, their roles, competency/ skills needed in digital environment. Explains necessity of professional ethics in 21st century, challenges and solutions, tools and resources for capacity building. Gives knowledge, skills, traits to be possessed by Librapreneur/Entrepreneur, methodology of capacity building programmes, different phases of quality assurance. Suggests how LIS education can update competencies and skills needed to sustain in digital environment. Paper concludes by saying that for survival of LIS profession, professionals and institution necessitates forecasting of changes that will take place and develop competencies and skills to keep LIS Professionals ourselves update in the changing environment.

Keywords: Capacity Building, Information Literacy, LIS Professional, Professional Code of Ethics, Quality Assurance

1. Introduction

In the industrial society pen was mightier than the sword. In the knowledge society mouse is more powerful than the pen. Connectivity including connectivity during mobility is very important in knowledge-based societies for just in time information search. From fixed phones people are shifting to mobile phones, from personal computers to personal digital assistants, from place centered Internet connectivity to WIFI and WIMAX networks. Technology enabled constant connectivity has helped in generation and use of more information, production and distribution of knowledge. Knowledge based societies are thus created by the advances in information technologies and are fueled by the Internet. Because of enhanced connectivity, instead of limited flow of information,

we witness free flow of information and knowledge inputs can come from anybody in the system. The information networks provide most democratic access to information resources at any time and any place, thus accessing relevant information and its strategic use at a faster speed has become important.

This indicates that in digital age tools and technologies are evolving in geometric rate. Time has come to think whether we, our library and our profession will survive or not unless we try to be 21st century librarian. Success or failure of any library or its professionals depends on what skills, competencies, capacities its professionals have. In order to survive in the digital environment, LIS professionals need to update their skills, competencies and capacities

2. Capacity

Bolger (May,2000) defined capacity as abilities, skills, understandings, attitudes, values, relationships,



behaviors, motivations, resources and conditions that enable individuals, organizations, network/sectors and broader social systems to carry out functions and achieve their development objectives over time. Capacity includes both human and organizational dimensions with the components like skilled human resources, leadership and vision, viable institutions, financial and material resources and effective work practices, procedures with optimum incentives.

3. Capacity Building

Capacity building (CB) includes manpower development, increase their abilities, skills and competencies by giving them knowledge and training to perform their professional duties effectively, solve problems and achieve objectives.(UNDP, 2008-13). The terms CB and capacity development (CD) are used interchangeably. CB/CD is the process of equipping individual and organization with updated skills and knowledge needed, stimulate and develop their capacities to do their jobs competently. It involves learning, training and continuous efforts to develop institutions, political awareness, financial resources, technology etc. It is a continuous process. (Md. Ashikuzzaman, April 3, 2019).

4. Need For Capacity Building

UNESCO (1972) identified that the lifelong learning is essential for learning society. For survival in the current changing environment self learning, self assisted learning has irreplaceable value in the present education system. The reasons for developing capacity of LIS professionals are:

The revolution of ICT across the world has made tremendous impact on all sections of the society as

well as on the global knowledge economy by reducing gap between information rich and information poor (Information divide)

Social networking as one of the web technologies is being used for collaborative social network services. Second generation Web technologies such as WEB 2.0, Wikis, Weblogs, Podcasts, RSS feeds, Social software are providing opportunities for the researchers and technologists to create new community, partnership between industries, academics and other institutions for knowledge creation and sharing are also posing challenges to LIS professionals.

The libraries/ Knowledge Resource centers (KRC) need to exploit new technologies for information processing, storage, retrieval and dissemination, creating collaborative tools, designing user friendly interfaces to provide customized services to end users. These new tools facilitate for global partnership, networking of institutions for knowledge creation, preservation and sharing. The KRCs need to be at the forefront of experimenting and implementing the new technologies for providing information to the people. Professionals need to constantly update skills to manage knowledge resources, emerging technologies in the changing environments, need to enhance to manage their capabilities and demonstrate their skills to manage the emerging technologies to provide information services to the end users.

With the use of ICT, LIS professional need to accept the challenges of retro conversion of existing collection with ISO-2709 format, prepare OPAC and Web OPAC to make it available to the users. As publishing industry started using ICT in producing their products, naturally it has affected KRC's collection. This has given birth to e-resources in

KRC. For acquisition of e-resources we have to search for aggregators, negotiate with them about contents depending on the availability of budget, sign content license agreement, etc. Since e-resources are to be organized properly for retrieval, it has given rise to automated classification, use of descriptors, etc. For cataloguing it has given rise to metadata. Collection management, technical services; copy right issues (IPR), plagiarism, interoperability, storage, security, validation, preservation, migration and backward integration of data; developing common library collections and resources, production and delivery of library services (Library consortia); digital content management system; digital preservation/archives; Web 2.0 technologies and its applications etc. are the bundle of challenges in front of LIS professionals, which we cannot escape but have to accept these challenges. 21st century is witnessing serious transition (Raina, 2000) due to transition from paper to electronic media, text, data, graphics and sound into multimedia resources for storage and retrieval of information; shrinking financial resources, continuous improvement, quality services to user, performance measurement and accountability; new forms of work organizations like outsourcing, etc.

Roles of LIS Professionals in Digital Environment

To face the challenges created by web technologies, tremendous availability of e-information on the web sites on one hand, helping hand needed by techno savvy users to use the information on the other side is presenting an opportunity as well as challenge to LIS professionals to play roles (Muthu, 2014; Thamaraiselvi (2009) as:

- ❖ Librarian.
- ❖ Information Manager,

- ❖ Information advisor/Instructor,
- ❖ System and networking,
- ❖ Custodian,
- ❖ Guide,
- ❖ Public relation officer,
- ❖ Information broker for both print & electronic media,
- ❖ Change agent i. e. Technology application leader,
- ❖ Facilitator,
- ❖ Educator,
- ❖ Innovator/Web site designer/ web master/ Builder/Manager,
- ❖ Database manager,
- ❖ Collaborator,
- ❖ Policy maker,
- ❖ Business manager,
- ❖ Image maker
- ❖ Information scientist in digital libraries & e-literacy,
- ❖ Digital space manager of academic institutions,
- ❖ E-resource manager
- ❖ Liaison role to bring users & information together
- ❖ Entrepreneur, publisher, etc.

Competency/Skills Needed

Competencies are a combination of skills, knowledge and behavior patterns vital to success of organization, professional as well as personal development. Competencies can be:

Professional competencies: LIS professional's knowledge in the area of information resources, information access, technology management and research as well as the ability to apply them in providing library services.

Personal competencies : include skills, attitudes and values that enables librarians to work efficiently, good & effective communicator, focus on lifelong learning, ability to accept challenges as opportunities, sharing knowledge, interest in partnership, foresight, mutual respect and trust, dynamic leader, positive attitude. (Muthu, 2014).

Considering the roles to be played, to function in variety of environment and to provide value added customized services, LIS professionals need to adapt and adopt different competencies/ skills to accept challenges (Sarmah,2014;). viz.

- ❖ Managerial skills:
- ❖ Knowledge of information sources and services,
- ❖ Technology skills,
- ❖ Professional search skills,
- ❖ Communication skills,
- ❖ Presentation skills,
- ❖ Customer services
- ❖ Commitment to lifelong learning,
- ❖ Evaluation and assessment skills,
- ❖ Marketing and promotion of library services,
- ❖ Business skills
- ❖ Project management skills,
- ❖ Time management skills

- ❖ Digital rights management skills,
- ❖ Knowledge management skills.

The National Knowledge Commission (NKC) (2007) recommended minimum skills to be acquired by LIS professionals viz. library and information handling skills, service orientation, ICT knowledge skills, communication and training skills, marketing and presentation skills, understanding of cultural diversity, knowledge mapping skills. The competency document has identified four major areas of competencies and must develop skills for managing information organizations, managing information resources, managing information services and applying information tools and technologies. (Piggot, 2019)

Information Literacy

Information Literacy (IL) empowers people in all walks of life to seek, evaluate, use and create information for achieving personal, social, professional and educational goals. (Horton & UNESCO, 2008, p.8). IL is media specific or subject specific viz. media literacy, digital literacy, e-information literacy, law literacy, etc. For LIS professionals IL aims at the ability of applying principles of scholarly communication to solve information handling problems; ability to locate, select and use proper tools to search information for obtaining useful information related to study or work; confidence in using and satisfaction in carrying out information searching.

Through IL librarians will be developed as teachers, Traditional bibliographic instructions will be changed to IL programmes. To function as true peer among faculties in context with IL, LIS professionals need to develop professional competencies viz.

- ❖ Managerial skills:
- ❖ Assessment and inquiry competencies,
- ❖ Instructional competencies,
- ❖ Technology competencies
- ❖ Scholarly competencies, and
- ❖ Social competencies.

Professional Code of Ethics

Knowledge of professional code of ethics has become the key skill and competence for preparing LIS professionals for new roles.

Ethics explain the concept of right or wrong behavior, good and bad with moral duty and obligations. There is a need for every profession to have ethical way of life for the professionals in the form of code of ethics. Professional code of ethics consists of obligations to be followed while performing duties. It also tells us about behavior to be adopted while implementing values of the profession. Every professionals need to ensure compliance with reading, understanding and following the code of ethical conduct and orient new members to comply. IFLA in 2012 gave code of ethics for LIS professionals, available in 20 languages, covers:

- ❖ Access to information,
- ❖ Responsibility towards individuals and societies,
- ❖ Privacy, secrecy and transparency,
- ❖ Open access and intellectual property,
- ❖ Neutrality, personal integrity & professional skills,
- ❖ Colleague & employer/employee relationship.

In India Dr. S. R. Ranganathan has given ethics and code of conduct for LIS professionals with his five laws of library science which are still valid in digital era. The 21st Century Librarian is a professional who understands the Millennial library; digital fugitive, digital immigrant as well as digital native customers, is able to adapt existing services and create new ones to meet their user's needs, and change the public perception of "library". (Nonthacumjane, 2011; Fisher, 2019). Ethics for LIS professionals includes:

- ❖ Fairness,
- ❖ Truthfulness,
- ❖ Transparency,
- ❖ accountability and
- ❖ Responsibility
 - o towards professions
 - o towards themselves,
 - o users,
 - o organisation/institution,
 - o Peers and
 - o Society

Ethical behavior increases images of the professionals along with the organisation/institution. Various codes have been formulated in different countries; their successful implementation is the need of the hour.

Capacity Building Challenges and Solutions

The formal professional degree has the shelf life of three years, it will decline after that. There is a serious

gap between available knowledge and its applications in KRC. To fill in these gaps it is necessary to build capacities of LIS professionals continuously. Continuing library and information science education is a nationwide problem, for that nationwide planning will be the solution. The challenges and solutions for CB are:

1. Definition of CB programmes as distinct from formal education.

HRD is a systematic learning that leads to growth and improvement in professional abilities, enabling individual to function successfully in a changing work environment. The purpose of CB activities is to fill in the knowledge gaps between formal education and the needs of professional practice. The course work leading to the degree is a formal professional education. After 3-4 years of formal education whatever knowledge acquired to keep update with developments in knowledge and practices is continuing education or CB. (Smith, 2003, p.443)

2. Choice of topics to be offered

Shaheen Majid (2004, p.64) and Ramaiah & Moorthy (2002) identified areas for CB as:

- ❖ Introduction of new technologies,
- ❖ Internet products and services,
- ❖ Web page design,
- ❖ Knowledge management,
- ❖ Design and management of databases, online searching,
- ❖ Records management,
- ❖ Meeting service management changes,

- ❖ Reduced funding levels,
- ❖ Anticipating and satisfying user's expectations,
- ❖ Exploring new possibilities for improving service deliveries.

3. Types of courses/ channels to be offered

Wide range of channels/courses can be used to develop professional competencies. The most common methods for improving competencies/skills can be:

- ❖ **Formal**
 - o Attending professional meetings, conferences, seminars,
 - Professional talks
 - Pre & post conference tutorials
 - o Working on professional association committees or membership of professional bodies,
 - o Preparing a talk for a professional association meeting as well as Presenting papers in conferences and seminars,
 - o Writing papers in periodicals and books,
 - o Preparing and teaching a course to LIS professionals and paraprofessionals,
 - o Conducting workshops that provide new concepts and skills,
 - o Taking formal course
 - Short term courses,
 - Computer based instructions,
 - Distance and e-learning courses,

- Modular training course,
- Intensive training course.
- o Attending induction programmes,
- o Attending staff training and development courses like orientation, refresher courses,
- o Undertaking research and development projects
- ❖ **Informal**
- o Visiting exhibits at the conference,
- o Reading professional literature,
- o Web resources,
- o Networking/talking with colleagues,
- o Self taught: gaining hands-on experience with technologies,
- o Email communications,
- o Internet based discussion groups,
- o Tours and visits to well managed libraries,
- o Personal interactions with expert fellow professionals,
- o On the job training.

The other channels for CB can be intensive training course, modular training course, technical expertise/ advice, mentoring, coaching, management or consultancy, facilitated workshop or exercise, leadership development, shadowing or observing, internship, exposure or exchange visits, action learning.

4. Who should offer it

The choice for offering CB programme depends on the type or channels for CB. The institutions that offer CB can be:

- ❖ Institutions employing librarians,
- ❖ Government agencies- by inviting subject experts.
- ❖ Commercial vendors – who sell products provide training in use and installation of their products as well as there are the vendors who offer training programmes on contract basis.
- ❖ Departments of library and information science in the universities,
- ❖ Library and information science organizations at national as well as international level may organize meetings which help to find information to increase knowledge who attend the meeting. Associations can organize workshops.
- ❖ Different agencies in India like NISCAIR, DRTC, NCERT and SCERT, Academic staff colleges in the universities.

5. Unavailability of resources

Shortage of library funds to establish CB programme, IT infrastructure and services as well as resource persons is a challenge for individual institutions. The solution can be making special budget provision, acquiring infrastructure and training given by seniors or mentors. The other solution can be contacting either library associations or university departments or academic staff colleges of the university or dedicated commercial vendors for conducting most essential CB programmes.

6. How to motivate LIS professionals to continue their professional development.

Factors that cause CB programmes inconvenient to the participants are travel, time and cost, their

emotions and feeling of embarrassment. To overcome these advance increments, promotion under career advancement scheme (CAS), certificate, credentials, recognition etc. can work as motivating factors.

7. Which method of delivery

The method of delivery for CB programmes can be:

- ❖ formal class room coaching,
- ❖ on-line learning,
- ❖ virtual seminar series,
- ❖ presentation
- ❖ Need based,
- ❖ participatory
- ❖ mentoring,
- ❖ Technical expertise/advice
- ❖ Consultancy,
- ❖ Facilitated workshop exercise,
- ❖ Shadowing or observing,
- ❖ Internship
- ❖ Action learning
- ❖ self study and experiments
- ❖ Management tools
- ❖ Case studies ,
- ❖ Group work and group discussion,
- ❖ Field visit and demonstration
- ❖ Hands on training.

Tools and Resources for Capacity Building

There are numerous tools and resources available to support all types of CB programmes, however some essential tools and resources can be:

- ❖ Career path information – in the form of guide books or some other formats.
- ❖ Employee guides and forms – to support self directed development or participation in planned programme.
- ❖ Competency assessment tools – to evaluate progress in development, can provide information on competency gaps.
- ❖ Individual personal development plan – to record and track progress.
- ❖ Personal competency profile – to validate, document employee competencies.
- ❖ Learning resource catalogues– gives employees access to pre-selected options.
- ❖ Work assignments or action learning exercises – aimed at developing competencies.
- ❖ Formal development programmes - that incorporate a variety of training, assessment & learning options designed to support career advancement.

JSI and world Education have developed assessment tools, technical assistance, training tools and resources as part of CB programme. Training modules, manuals and job aids in different management areas include management of grants, human resources, finance, supply chain, quality improvement, data management, impact evaluation, monitoring and evaluation, monitoring and facilitation, strategic planning, sustainability and resource mobilization, networking and referrals, sample surveys and documents, News letter etc.

Entrepreneurship

LIS professionals may opt entrepreneurship as a career and become a Librapreneur. To be a librapreneur one has to work hard, has strong vision, mission and determination. They should possess entrepreneurial competencies which combines knowledge skills, traits to be possessed by individuals to perform the task. (Jain,1998)

- ❖ Initiative,
- ❖ Opportunity seeking,
- ❖ Persistence,
- ❖ Information seeking,
- ❖ Concern for high quality of work,
- ❖ Commitment to work contract
- ❖ Efficiency orientation,
- ❖ Systematic planning,
- ❖ Problem solving,
- ❖ Self confidence,
- ❖ Assertiveness,
- ❖ Persuasion,
- ❖ Use of influence strategies.

Competencies may be hard or soft, but needs to be acquired by every entrepreneur. These competencies can be acquired by undergoing proper training.

Opportunities for Librapreneurs are:

- ❖ Information broker,
- ❖ Book publishing industry,
- ❖ Book distribution agency, periodical subscription agency,
- ❖ Newspaper dealership,
- ❖ Book shop,
- ❖ Stationary shop,

- ❖ Binding workshop,
- ❖ Lending or circulating library,
- ❖ Reading room,
- ❖ Consultancy services,
- ❖ Career counselor,
- ❖ Library software developing industry,
- ❖ Online bookstore,
- ❖ Digital book/periodical publishing,
- ❖ Subscription agency of electronic books/journals,
- ❖ Writing biographies, etc.

Management of Capacity Building Programmes

Management of CB programmes include different tasks viz.

- ❖ Asses regular and current capacity needs,
- ❖ Decide focus areas for strategic planning & undertake planning process,
- ❖ Design curriculum resources,
- ❖ Widely disseminate information about CB programmes,
- ❖ Identify learning participants,
- ❖ Select course instructors on the basis of subject knowledge and teaching ability,
- ❖ Organize the needed infrastructure,
- ❖ Develop funds,
- ❖ Plan and lead effective learning activities,
- ❖ Consistent documentation of individuals participation in learning so that recognition of participation in continuous learning can be considered for promotion decisions,

- ❖ Monitor, evaluate efficacy & outcomes of CB programmes,
- ❖ Provide follow up support to learning,
- ❖ Analyze organizational performance,
- ❖ Capture and share good practices.

Quality Assurance

Quality assurance (QA) is a set of planned activities which monitor various stages of CB service or product to ensure that quality standards are met. It covers review, measurement, comparison with standard, feedback and ongoing assessments in CB and implementation. QA examines and seeks to improve the processes used to create the end service or product.

The QA framework consists of six quality standards viz.

- ❖ **Relevance:** The extent to which the program activities are consistent with programme objectives. It checks whether we are doing right things.
- ❖ **Quality of contents:** The extent to which programme gives state of art knowledge and practice; whether design and sequencing of the programme contents are liable to achieve impact; whether contents are accurate, Are the contents consistent with local needs and easy to understand.
- ❖ **Effectiveness:** The extent to which objectives are likely to achieve and how we will be able to know it.
- ❖ **Efficiency:** The extent to which resources (human, financial, and time) devoted to the programme are proportionate with the

objectives of the programme. Whether our actions are cost effective.

- ❖ **Impact:** Extent to which programme will have sustainable impact. Whether we are contributing to achieve objectives of the programme.
- ❖ **Sustainability:** The extent to which the benefits of programme are likely to continue. Whether capacity has been implanted in the change processes on an ongoing basis.

These standards can be applied to four stages of capacity development:

- ❖ **PLAN:** development of a programme;
- ❖ **DO:** Implementation of the programme;
- ❖ **CHECK:** Monitoring and evaluation of the programme; and
- ❖ **ACT:** Integration of lessons learned in successive programmes.

These four stages are corresponding to four quality assessment phases viz.

- ❖ **Quality at entry (Plan):** assessment conducted at the initial design of the programme. It evaluates how well programme needs and assessment are identified, whether proper approach was selected and the programme will be implemented, monitored and evaluated.
- ❖ **Quality at implementation (Do):** Assessment is conducted at the time of implementation. It examines programme being conducted is on the right track, whether implementation process has come across any difficulties.
- ❖ **Quality at exit (Check):** It assesses what has been achieved in terms of outputs and outcomes of programme.

- ❖ Feedback between Quality at entry and quality at exit (Act): assessment conducted during the design of the next programme. Based on the results of the previous programmes, the changes are incorporated in the design of next programme. (Clear, 2014)

LIS Education

Education is an important aspect of human achievement, which enables the person to utilize its potentials as an output in its field of career. Information world is changing rapidly. New skills are needed. We need to identify new areas that can benefit from our skills and move into them. We have to ensure LIS education programmes include instructions in information architecture, KM, archives, record keeping, digital library management, digital preservation etc. to name a few, which will keep information professionals relevant and valuable.

Core competencies should be integrated in LIS education, viz. analysis, processing, description, interoperability, visualization and preservation of data. These competencies will help to prepare highly skilled information professionals, who will be able to work in libraries, archives, museums as well as government & business organizations.

The recent developments - learning management software tools such as A tutor, Claroline, Dokeos, Moodle, Sakai etc. and use of web 2.0 components such as Blogs, RSS, Wikis, Social Networking Sites etc. in the library and information centers are forcing the educators to use this media in imparting education. The rapid changes in technology have caused the need for skilled manpower to run modern libraries and to transform existing libraries. This has

made advance training necessary for highly automated libraries.

NKC (2005, p.31), has suggested that as soon as possible the manpower requirements of the country in the area of LIS management, and take necessary steps to meet the country's requirement through LIS education and training. To keep the LIS sector abreast of latest developments, necessary encouragement should be given to research after evaluating the research status in the field. Establishing a well equipped institute for advanced training and research in LIS and services would provide the necessary impetus to this task.

As the discipline LIS is concerned with information/knowledge, organization and dissemination is of great importance to knowledge society. For our, our professional and our institutional survival, the LIS schools at national and international level should take necessary steps for introducing the new courses in the form of either as core or elective papers by identifying areas for LIS education.

Based on the skills and competencies to be developed they can be divided into core papers or electives. For some of the courses post graduate diploma or certificate courses can be framed along with their syllabi e.g. The electives like entrepreneurship in LIS, marketing and promotion etc. can be introduced as electives, while management, information literacy etc. can be covered as core papers at post graduate degree level. Short term courses either of three weeks to 6 months duration can be introduced like website design and development, image making, etc. Some of the areas can be covered either as research project or research at Ph.D. level. The courses as well as syllabi should be revised from time to time whenever the need

arises. Apart from this continuing education programmes can be organized by the schools in LIS education.

The challenges faced by educators for LIS profession are pedagogical, curriculum, finance, infrastructure, economic and political. These should be solved by local leaders.

Conclusion

For the survival of our profession, our organization and ourselves it is necessary to forecast what and how changes will take place and how to grab them by developing our competencies and skills. LIS being a noble profession, it is necessary to cover the area of professional code of ethics, which can help in solving professional problems. Proper planning for regular LIS courses as well as CB programmes is necessary for successful implementation as well as maintaining quality of the programmes these courses need to be revised from time to time to keep them dynamic.

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