QUALITY OF RESEARCH: A COMMANDMENT AND NOT A COMPROMISE

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Library and Information science research in India has completed half a century mark. However several issues related to research need to be addressed to. Quantitatively there is enormous growth but qualitatively much needs to be done. Admissions and Evaluation are to be made more stringent. Areas of research need identification and focus. Here, an attempt has been made to provide an over view of LIS education as a backdrop to LIS research out put in the field of Librarianship. It traces the origin and growth of LIS research programmes since S.R.Ranganathan. It provides data on the quantitative out put of LIS Ph.D theses and major areas covered from 2001-2007. List out some of the problems and emphases on what needs to be done to bring in quantitative and qualitative parity.

Introduction

The **Library** to which Library and Information Science (LIS) education has to cater to, is increasingly becoming complex. Changing social priorities and developments in Information Communication Technologies (ICT) are driving the emergence of a **new library** concept. This will have to be organized in a new way to deliver new services. The educationists in LIS have felt the need for restructuring of LIS curriculum to meet the demands of digital librarian and digital libraries, as the traditional LIS graduates are not be able to cope up with the challenges of ICT. Today LIS education not only includes the library specific subject but it also has extended its frontiers to subjects like computer application, statistics, information science, management studies, operation research, etc. With the changing scenario, modern librarianship has become a challenging profession with a diversity of opportunities and challenges for LIS professionals.

India being branded a developing country is implementing a plethora of economic development and poverty reduction programmes and the development of rural sector is being given high priority. Access to information and technology is necessary too for the advancement of individuals. Dearth of information and inadequate access to information in the disadvantaged communities can be answered by the librarians/Information professionals. Not only the provision of information but the application of information to empower people has to be promoted by information professionals.

LIS Education in India

Professional Education in LIS in India is a century old and centered in universities. The foundation of LIS education in India dates back to 1911, when W.A. Bordan (1853-1931), an American disciple of Melvil Dewey, for the first time started a short-term training program in Library Science at Baroda, under the patronage of Maharaja Sayajirao Gaekwad. Four years later in 1915, another American student of Dewey, Asa Don Dickinson (1876-1960), the then librarian of Punjab University, Lahore (now in Pakistan) started three months apprentice – training program for working librarians (Satija, 1993). Before independence, there were only five Universities (Andhra, Banaras, Bombay, Calcutta, and Madras(Now Chennai)) offering the Diploma in Library Science. A large number of Colleges, Universities, Associations and learned societies started after independence. And the need for qualified Library Science personnel was realized to manage their libraries. Dr. S. R. Ranganathan started a certificate course at Madras Library Association in 1929, which was taken over by the University of Madras. And in 1937 the course was converted into P.G. Diploma in Library Science. A Full-fledged Department of Library Science was started in the University of Delhi in 1946 with P.G. Diploma in Library Science and later changed over to Master of Library

Science (M.LIB.Sc). After 1950's, a large number of schools were established to provide different levels of LIS training programs from Diploma to Post Graduation to Doctoral level. At present there are two national institutes, namely the Document Research and Training Centre (DRTC) at Bangalore and NISCAIR (National Institute of Science Communication and Information Resources) formerly, Indian National Scientific Documentation Centre (INSDOC) at New Delhi, concentrating on training professionals for special, industrial and corporate libraries and information centers (Oriented towards Science and Technology). Many regional associations offer certificate courses in LIS, of a few months' duration, and women Polytechnics offering Diploma in LIS to train Para professionals. Major stakeholders in LIS education are Universities: The Masters degree in LIS is a two year long structured programme after 10+2+3 years of education in any discipline. Some universities have two separate programmes like one year BLISc degree, and one year Master's degree program, some have two years integrated MLISc program of 4 semesters. Indeed, the syllabi in these courses are quite modernized/ current and have many optional papers/courses available for students to specialize, mainly to cater to the contemporary demands

Other important stakeholders/promoters of LIS education are Distance Education Institutions. They provide training to large number of students and working professionals in the form of counseling and award degrees at different levels like BLISc, MLISc, M.Phil, and even Ph.D. degrees are awarded without proper infrastructural facilities.

Two Universities, BHU at Varanasi and Utkal University at Bhubaneswar offer D.Litt. Programs in LIS. So far, only one D.Litt. degree has been awarded in India since 1992 by Utkal University to Dr. B. D. Shukla. (Kumar, 1998)

University faculty has to perform three important functions, teaching, research and service and consultation, which has remained weak in India, in spite of many newly established university-industry linkage programmes. (Mitra, 1997).

LIS Research in India

Research is a creative activity aiming at realizing insights, whether it is Science and Technology or Arts/Social Sciences. It arises out of curiosity or sheer necessity. It is a systematic inquiry by objective methods. Novelty is at the heart of this activity and objectivity is the basic rule. Research is universal and democratic, not individualistic, subjective. Discovery and dissemination of new ideas/ knowledge has always been the source of excitement and offers unimaginable social benefit to the society. The rapid advances and spectacular achievements in many fields of human endeavor in the 20^{th} century and after is only due to the results of extensive organized activity called 'Research'

The aim of any research is to solve some of the practical problems or to know the unknown. It is the only way to constantly add to the fund of reliable knowledge – knowledge which is considered as power. Human beings are inborn curious beings and power seekers. The innate curiosity to know the unknown and control the surroundings for survival and to make life comfortable in the society has led to continued research. Library and information science is not an exception. From information on clay tablets to electronic form of information is the result of such curious activity called research.

There is always a horizon in research. Every profession puts its best brains to do research. Researchers are always on the forefront of profession and impact on the new directions and dimensions. (Satija, 1999). S.R. Ranganathan firmly believed that research is necessary for well being of humanity and peaceful co-existence of nations (Ranganathan, 1957). Investment in research yields rich dividends. Planned and highly organized research has become the order of the day. Every government dedicated to democracy and social welfare not only encourages research but also funds it adequately without undue interference regarding the results. In the information society research has

acquired a new space and dimension, researchers are the creators and information professionals are the facilitators of an information society. Research results (True) always help in the growth of intellect, solving professional problems, sharing of new information and improvement of professional traits and accumulation of new knowledge.

The fast changing environment fueled by technology has caused a paradigm shift in the library and information science profession. While the traditional roles of the library and information professionals in providing access to information continues to be important, the responsibilities of this group have extended beyond providing just access to helping in utilizing information in the right context at the right time. But now the libraries have to provide information in all forms, at all time and at all places. To realize the end research is inevitable.

Doctoral research/ degrees were a very stringent program up till 1980's. A very few people opted because of the rigorous procedures and standards. Later standards and procedures started melting down with proliferation of a number of educational institutions and autonomy of these institutions. Realistically speaking Ph.D. programs have become an extended training program in acquiring attitude and learning the tools and methodology of research.

The root of LIS research in general is a century old. India in particular has half a century history starting from 1950's. The credit for the formal institution of doctoral degree program in LIS in India goes undeniably to Dr. S.R. Ranganathan. In 1951 he started doctoral program at the University of Delhi surmounting too many difficulties. The first Ph.D. degree was awarded in 1957 to Dr. D.B Krishna Rao for his work on Faceted Classification for Agriculture under the supervision of Dr. S.R. Ranganathan. In 1962 S.R. Ranganathan started Documentation Research and Training Center at ISI, Bangalore, and Ph.D. program was not started due to technical reasons. The second Ph.D degree in LIS was awarded in 1977 under the supervision of J.S Sharma, at Chandigarh after a gap of two decades. Thereafter there was no looking back. Many universities started Ph.D. programs mostly with individual efforts and enthusiasm.

However Ph.D degrees awarded to LIS professionals from other disciplines-first Ph.D was awarded to a librarian (Mr. Munindranath Basu) in 1950 from University of Calcutta for his work on Museum method and the process of cleaning and preservation/library preservation.

Today, 65 Universities in India are providing facilities for Ph.D Program. Half a century research activities in LIS in India reveal that from 1950 to 1999 there were about 367 Ph.D degrees awarded to LIS professionals. Of which 30 were in other disciplines and remaining were in LIS. Major aspects of research are related to University libraries, Information Services, Library Profession, library history, Classification, Cataloguing, library education, library personnel, user education, library automation, special libraries and IT. Library Classification and Indexing were major areas of research during 70's and 80's, but during 90's and 2000 aspects related to subjects like Information Science, IT, Bibliometric Studies have gained more emphasis. From 2001- 2007 there were more than 310 doctoral degrees awarded from 63 universities in 20 states in India. Karnataka State in particular has had 50 doctoral degrees being awarded during 2001-07 from six universities under the supervision of 13 research guides/teachers in LIS.

Liberalization of LIS Research:

There are no checks and balance on the emergence of LIS schools and Ph.D. programs. Any LIS school started with a faculty having Ph.D. degree starts Ph.D. program too. A teacher /Librarian with Ph.D. degree are eligible to become Research Supervisor of Ph.D. program in many universities. Upto mid 1990's there was a condition in most of the universities that a teacher to be eligible to guide or supervise a Ph.D. program need have put in 5 years of service after obtaining Ph.D. degree with continued research. That condition is relaxed now. The whole range of activities in the

area of research has intrinsically embedded with the semblance of general education. Apparently, quality is the biggest casualty.

First fifty years of research in LIS from 1950-2000 is a very slow and steady pace of growth. From 2000 onwards Ph.D. programs have been introduced and expanded mindlessly. As a result, there has been a doctoral boon, a spectacular rise in Ph.D. awarding Universities and awardees. This is because UGC (India) prescribed conditions for faculty employment and promotions to higher positions have prompted many library professionals to acquire Ph.D. degrees, though many may not have the aptitude and the intrinsic ability to do research, which resulted in not only deterioration in the quality/standards of research, but have been deliberately ignored?

Teaching is the primary compulsive and urgent duty to be performed by university teachers. Students expect their teachers to give them time and personal attention, and there is always an appreciation for good teaching. But the rewards lie in the research and publication activity. And teachers are driven to the passivity of guiding doctoral research instead of pursuing post-doctoral work. The UGC's preconditions for faculty employment and promotions – the cut off date of December 1992 later extended to 1993 for obtaining the Ph.D. degree to get an exemption from the National Entrance Test (UGC-NET) for teaching and non teaching jobs at undergraduate levels (Colleges) and post graduate levels (Universities) has done irreparable damage to research standards.

Research guides/Supervisors and adjudicators have become obligingly compromising and resulted in hundreds of theses being submitted to different universities (in general), Library and Information science did not lag behind in the race. This period may be characterized as an era of academic liberalization. This liberal attitude on the part of apex bodies governing the academic standards is being appropriated at different levels only at a high cost of quality. Following table proves it:

Table 1. Number of Ph.D. awarded from 1950 to 2007

Period	No. of Ph.D. awarded
1950-59	02
1960-69	03
1970-79	08
1980-89	98
1990-2000	266
2001-2007	310+

First forty years of research in LIS (1950-90) yielded only 111 theses, but later from 1991-2007, 616 theses have been awarded with Ph.D. degrees, in addition to many hundreds of M.Phil. Degrees. In Karnataka alone from 2001-2007, 50 doctoral degrees have been awarded.

In productivity of research degrees Karnataka State has taken the lead, overtaking Punjab University, Chandigarh, which led up to the mid 1980's. (Satija, 1999). Following table shows number of Ph.D's in Karnataka and India during 2001-2007. Areas of research covered during 2001-07 in Karnataka and India are as follows:

Table 2. LIS Research in Karnataka during 2001-2007

Area of Research	Ph.D. awarded (%)
IT Related	26
University/Academic Libraries	24
HR related	12
User study/ Behavior	10
Classification	06
Bibliometrics	06
Marketing	04
Special Libraries	04
LIS Profession	02
Service for women	02
Information Sources	02
Comparative study	02

Table 3. LIS Research in India during 2001-2007

Area of Research	Ph.D. awarded (%)
IT Related	23
User Studies	19
Kinds of Libraries	15
Management Aspects	09
Bibliometrics	09
Evaluation	06
LIS Education	04
Marketing	03
Service to Challenged	03
Hindi	04
Information Sources	02
Information Processing	03

Quality in LIS Research

Quantity of research is easier to assess than quality. What is most easily quantified is not research per se but the number. The evidence is fragmentary, but it appears that the quantity of published research has been increasing. Evaluation of the quality of research is based on two sets of criteria: one has to do with the conduct of research - its underlying logic and methodology, and the validity and longevity of conclusions. And the other has to do with the topic of research: does it address questions that are useful, interesting and important?

Most of the methodologies are fairly new to LIS. One reason may be that the number of journals has increased faster than the number of good research articles, so that lesser quality articles are being published. Another methodological problem is the unusual preponderance of practitioners' publications. The plurality of authors is academic librarians/ librarians at special libraries mostly without doctorates, majority of them rely on descriptive statistics.

The reason for such increased production / involvement in research is due to pressure on practitioners to publish/ perish logic to gain promotions, either they have to publish/ conduct research/ guide research. Most of the studies are, a single, short-term problem, what, how, who, when and where and are limited to single library/ geographical area at a point of time. And studies are repli-

cated many a time, very minimum cross-library comparisons. Most of studies are strictly limited to current library practices rendering them obsolete rapidly.

Admission Requirements

Admission criteria for Ph.D program should be on sound principles. A teacher in a university department plays multiple roles- as teacher, a counselor, part of administration, a researcher and supervisor for Ph.D. students (not in one area but many areas of specialization) (not in one university where he/she is employed, but in many universities within the state and outside in some cases)). This has resulted in large number of doctoral students graduating with sub-standard research results as well as creating the problem of under employment. A good research is one that always provides solution to contemporary problems/ answer to the questions.

The role of LIS research is to provide a framework for the library and information profession which

- Articulates the function of this discipline (information science) and library and information profession in the society.
- Helps to identify the position of this discipline in the context of intellectual endeavors.
- Helps to provide direction, parameters, guidance and values for the practicing information professionals. (Information Transfer, Ubiquitous nature of Information)

LIS research must take a holistic approach to problems and cross discipline boundaries in its search for understanding.

Library and Information Science has gained popularity slowly, but not highly recognized as professions like Medicine or Engineering. LIS departments expect enrollment of 'Good' students, but more often than not, have to be satisfied with the 'leftovers'. To convert this leftovers position to most sought after position, LIS faculty have to restructure themselves from all rounder to specific subject specializations/fields accepting the challenges of change. Every area in LIS needs to be looked at from IT orientation.

Entry requirement for research in LIS in India is less stringent. To gain admission to Ph.D. or M.Phil., in most of the Indian Universities, the requirement is a Post Graduate degree in LIS with 55% of marks in aggregate.

There are two streams of enrollment to Ph.D program: one full time research with or without fellowship either by UGC or University; and part time research for working professionals (Librarians /Teachers). In some Universities like University of Kerala and Jawaharlal Nehru University, provision is for full time research only.

Relevance of Research

In developing countries like India, there could not be a dearth of research problems to be investigated, but there seems to be a lack of perception to visualize and identify valid problems for research. A cursory glance of the topics researched on will reveal that the topics chosen do not have a problem or hypothesis, but mere state of the art reports or description of the existing conditions. The popular areas are University Libraries and their services, special libraries and their services, user behavior in special libraries, academic libraries, Information systems, collection organization, library history, and case studies of different types of libraries, library resources, and LIS education, etc. Evaluation of documents selection, procurement, cataloguing, library management (both material and human resource) are least popular topic, though they are practical and relevant to present day needs, as huge amount of money is being spent on collection and HR. The basic research is the

most neglected area, which has been endorsed by other doctoral surveys. (Lahiri, 1996; Varalakshmi, 1994)

There is a need to revive research in traditional areas like classification, indexing etc in the light of information technology, globalization of information services, information networks and digital/virtual library environments.

Further the curriculum development committee in library and information science (CDC), 1992 constituted by UGC has emphasized briefly the importance of research and listed some areas for research. It has demanded uncompromisingly a clear declaration from Ph.D. candidates that the 'work is based on the discovery of new facts by the candidates or new relations of facts…. and how the work tends to the general advancement of knowledge' (UGC, 1992). Research in LIS has an important role to play towards creation of new knowledge and solutions to problems faced by practicing librarians, information scientists and other library professionals. Incidentally, these activities will also enable the programmes in LIS schools.

There are three ways of carrying out research activities; one is in the form of dissertation work at P.G. level (MLISc) (Preliminary), at M.Phil. (Middle) and another at Ph.D. level (Advanced). Though formal research was very slow in the early days (1950-80), it gradually accelerated and the output is increasing. But research reports are not easily available to scholars who are pursuing their research because many libraries do not acquire them systematically, at least the titles could be compiled as it is published in weekly University News of the Association of Indian Universities, New Delhi. This is a major source to keep track of Ph.D. degrees awarded by Indian Universities, to avoid duplication. Many projects are on the way like Vidyanidhi.

Problems of Research in India

The status of contemporary research in LIS is examined and reviewed by a number of academicians and identified some of the problems:

Lack of theoretical background; lack of science and technology background, lack of language support (English); absence of model in research results; absence of appropriate 'sampling procedure'; maximum use of statistical techniques without proper justifications; simple presentation of data in terms of percentages; selection of any tool of western origin without considering adaptability; improper questionnaires- lack of proper supervising capability; irrelevant, unproductive, substandard topics; and number of research workers with different areas of work under one supervisor (Subject specialization replaced by expert in all fields).

The need for continued research activity in LIS can be visualized on three reasons:

1. Educational - need for advanced study in the field of LIS;
2. Critical – approach to librarianship;
3. Symbolic – growing profession.

Many questions have been raised by many researchers in the professional literature. There is a need for introspection in LIS research. Few simple/basic questions are to be answered like

- What qualifies LIS research?
- Is it any type of investigation conducted by LIS professionals?
- Must the investigation focus solely on matters related to libraries, library users and containers of information such as books, databases, etc?
- Should it be cross-disciplinary/interdisciplinary?
- Should it be based on theory?
- Should the theory fit a particular paradigm?

? Should research have quantifiable data?
? Is new idea or discovery a requisite?
? Is something needed to be proved? Etc.

The wide world of LIS research has been in a continuous change ever since it started. Since then researchers have involved in bibliographic compilations, history of libraries, library co-operation, and information seeking behavior. Library automation, networked information retrieval, networked learning, digital libraries, information over load now open archives, open source software, etc. Most of the studies (>50%) have made use of survey method of research and questionnaires are the major collection tools (supplemented by case study method).

There is gradual progress in the methodology and the subjects of research. But there is very little to hold the studies together and is partly due to shifting of focus of the research, i.e. switching according to situations. Another proposition is the lack of cohesion, which is fairly obvious. There are very few areas in which continuous research over a period of time has tackled specific problem or sought an understanding of particular phenomena, for instance IR.

With such huge quantum of research projects, what is required?

1. Standardization of tools and methods.
2. LIS Schools with specialization.
3. Individuals with specialization.
4. Co-ordination and cooperation among LIS schools and libraries.
5. Research should be problem based and results should be implemented.

The reason for lack of cohesion and connectivity may be mainly due to lack of single object of research in LIS. Of course Information is the concept, LIS research deals with, but information is a concept that takes different forms at different integrated levels. (Document, Message...).

Another reason for lack of cohesion is inadequate use of research results by other researchers. Research results are hardly used by working librarians in solving their professional problems. Conversely there is no precedent of a library inviting a library school to do research on the problem confronting them (Satija, 1998). Instead, professionals go for temporary or ad hoc solutions for their practical problems. Even the researchers consult a teacher or a fellow researcher for a topic of research rather than a practitioner. (Prytherch, 1997). Now Forums (mailing lists) have become media for enlisting topics for research, e.g. NMLIS by Prof. Laxman Rao of Osmania University, Hyderabad, Andhra Pradesh.

Professionals have been talking, writing and conferencing about library education and research in India. The literature on library education and research is enormous though repetitive and inflated many a time. The blame is wholly put on the financial crunch and lack of infrastructure. In addition, other blame needs to be lack of collective, effective efforts to safeguard the standards.

Conclusion

Thus, research has been distanced from reality or a theoretical exercise at the best. Doubting the value of research in information science, Keren in 1984 suggested that 'it would be worthwhile to find out how much of it has really contributed to our body of knowledge and to the methods used by practitioners'. This suggestion is relevant even today. There is no dearth of ideas or research proposals to be investigated in LIS in India, but there is no constructive, co-operative step taken to uphold the standards. Research is an essential part of practice and teaching and in an applied field like LIS, research is particularly important to the future of libraries, information access and publish-

ing. Research should be need based/related to existing problems and aim at providing solutions. Evaluations should be made more stringent to uphold the standards.

There is continued restructuring / revision of curriculum at all levels of education, but have failed to apply the critical approach/ evaluations to the framed structures. Too much of money, human resource and valuable time are being spent on research related activities. But there is no evidence to prove that all the research results have aided in growth of the society. In other words there is no meaningful effort being put to relate the LIS research findings to social development. Many factors like historical and cultural factors in the society at large, which have exerted and continue to exert great influence over the libraries as an institution, have not been perceived in a proper perspective.

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