

# Education for Information: Historical Root and Future Prospects

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**Abstract** - Information is one of the important and vital gradients in modern days. Education for information is available in several academic unit and establishment which including universities, engineering colleges, polytechnic, General Colleges and in ITI. Information and its important bring several level of degree like Bachelor, Masters, Diploma, Certificate and so on. Information Field or Information Education is includes Information Studies, Information Science, Knowledge Management, Information Systems and so on. However over the time these information fields are incorporated with several IT and Computing gradients and thus also known as Applied Computing/IT field. This paper illustrated details of Information Education; including common nomenclature, historical background and future prospects.

**Keywords:** Education, Information, Historical Background, IT, Information Science, Information Systems, Computer Science, Informatics, Information-Value, Information Science and Technology [IST]

organization, processing, management, dissemination of information [01, 03, 20]. The values of information activity lead the cause of the development of education programme. Information Education are those which are actually responsible for the information processing and management. The most and earlier Information Education was treated as Information Studies. However, indirectly the field Library Science is treated as oldest Information Education Field. The development and growth of several knowledge gradients related to information in Library Studies/ Science/ Librarianship ultimately responsible for the development of field Information Studies. However, in between development of Information Studies and Library Science one another Information Field evolved i.e. Documentation. Later on it is named as Documentation Studies/ Science. Information Studies than incorporated with several technologies and computing gradients and ultimately known as Information Science [15, 16, 16]. Thus, Information Science is included both Information Foundations, Computer Science, IT and Cognitive Science for better Information practice.

## I. INTRODUCTION

Information Education or Studies or Information is treated as one of the important and valuable education systems for information activities which include collection, selection,

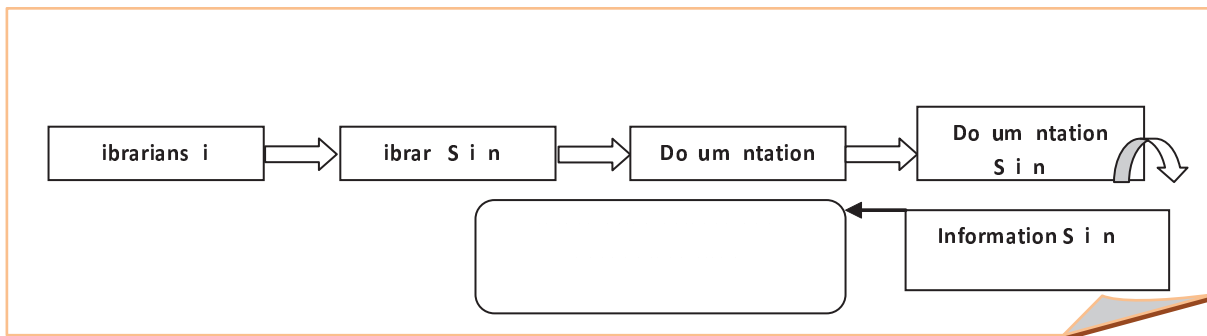


Fig. 1 Showing Changing nomenclature of Information Field

## II. OBJECTIVES

The main aim and objective of this study is includes, but not limited to:-

1. To learn basic about information and its role and need for Information Field;
2. To know basic about Information Education; its basic characteristics and features;
3. To learn about information related degrees and their evolution in 1800's to till date;
4. To learn about the modern nomenclature of some information field and their need in modern societies, business, health and other domain or places.

## III. INFORMATION EDUCATION

Information Education is includes the study, training, educational programme related to information; directly or indirectly. Information Education is responsible for the several information jobs which include Information Transfer Cycle [ITC] and information channel creation. Initially Information Education is serve information solution but before that it completes some other task which includes information collection, selection, organization, processing, management and dissemination [20, 21, 25]. However, today Information Management many ways managed by the IT and Computing thus, Information Education is also responsible for technological solution. Commonly Information Education

is treated as Information Science, Information Studies, Information Systems, Documentation Studies, Information Management and so on.

***A.Nomenclatures of Information Education in early stages to modern stages.***

Earlier Information as an educational field was absent; though several tools, techniques, principles are used to

manage information and similar resources. During the last of 1800's some expert and information manager think that about Information Management, Document and Book Management from the angle of scientific study, mechanism and procedure as ultimately as an educational programme or study. This in 1876, Melvil Dewey launched a partial information management programme called 'Librarianship'.

TABLE I SHOWING THE CORE INFORMATION RELATED PROGRAMMES AND THEIR AVAILABILITY IN INDIA

University/ Institutes	Availability of Bachelor Degree	Availability of Masters Degree	Availability of PhD Degree
BIT Mesra, Jharkhand	No	Yes, MSc-IS	Yes, PhD-IS
IEM,WB, WBUT	No	Yes, MSc-IS	In Process
Techno India,Saltlake, WB	No	Yes, MSc-IS	In Process
KITM, Buniadpur, WB	No	Yes, MSc-IS	No Planning
DATM, Jalpaiguri, WB	No	Yes, MSc-IS	No Planning
Techno India, Hooghly, WB	No	Yes, MSc-IS	In Process
DSMS- Durgapur, WB	No	Yes, MSc-IS	In Process
Dr. BC Roy Engg. College, Durgapur, WB	No	Yes, MSc-IS	In Process
DLIS, Madras University,TN	No	Yes, MSc-IS run from 2003-07	Yes, now back In LIS
ISiM, Mysore University,KN	No PGD is available	Yes MTech-ISM (higher than MSc)	Yes In Information Sciences
SRM University,TN	Yes, Related BSc-ISM	No	In University Faculty; not with Information Science nomenclature
MCIS, Manipal University,KN	No	Yes, MSc-IS	In University Faculty.
DDE, Kurukhstra University, Haryana	Yes, Related- Bachelor in Information & Management	No	No

This training programme was offered as Certificate Programme in collaboration with American Library Association [ALA]. This programme was based on traditional tools and techniques responsible for the book, document management. The programme includes cataloguing, classification, indexing, abstracting and other traditional tools and principles responsible for the book and library management. However, the growing production of several documents such as Journal, Atlas, Article, other documents and E-Material like Microfilm, Micro Fitch lead the development of another information related domain known as Documentation. However, the Documentation and its

development lead the new nomenclature ‘Documentation Studies’; which was responsible for document collection, selection, organization, processing and management. During the late of 1960’s it was renamed as ‘Documentation Science’ in most of US based universities. In some universities both Librarianship and Documentation was centered to offer as study programme due to their importance in the respective field. Both, Librarianship [And later known nomenclature *Library Studies, Library Science and Documentation*] and Documentation Studies are offered in the faculty of Arts/ Social Science/ Humanities in most of the universities around the world.

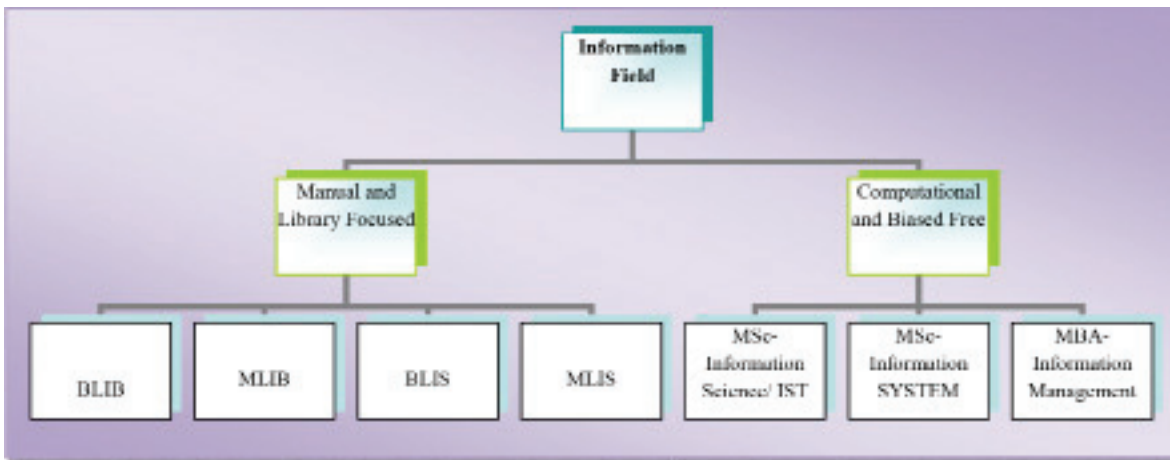


Fig. 2- Showing two dimension of Information Field

The explosion of information and knowledge lead the cause of a new domain called Information Management and in some cases knowledge management. Information and Knowledge Management is responsible for the healthy and sophisticated knowledge and document management. In Information Management, apart from information/knowledge related gradients and management studies, Information Technology and Computing play an important role. Information Management professionals are employed in the organization and general enterprises as it includes Business and Organizational Studies. While traditional information foundation such as information centre, documentation centre, data centre, libraries, information analysis centre and similar are basically served by the Information Studies, Documentation Science, and Librarianship skilled professionals. Information Management in most of the Universities is available on MSc-Information Management and BBA/MBA-Information/Knowledge Management. In Information Management,

information is viewed in Management and organizational context. Documentation viewed as Document; including Documentary and non documentary.

Though, after the development of Librarianship, Library Studies, Library Science, and Information Management; another important domain evolved which is still treated as flagship programme in information field i.e. Information Science [IS]. Information Science is an interdisciplinary field responsible for information and side by side technological solutions. the information solution is includes information collection, selection, organization, processing and management and broadly information processing and management which technological solution are indirectly related with information and knowledge which includes Database Management, Multimedia Technology, Web Systems and Technology, Communication and Networking Technology, Information Retrieval Technology and so on.

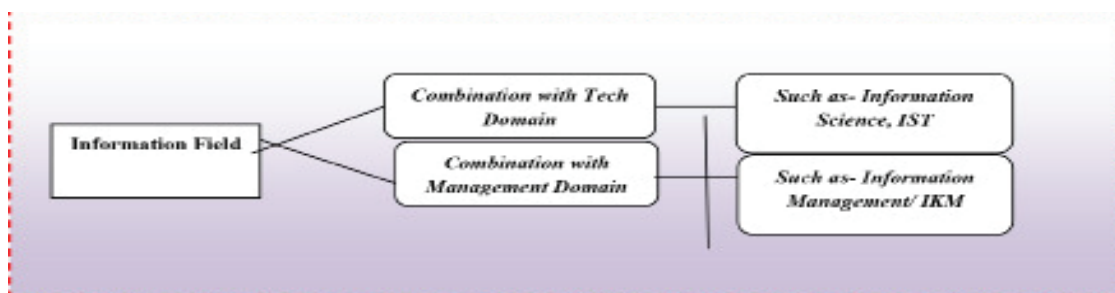


Fig. 3 The Two dimension of Information field

Information Science and its interaction with computing and engineering fundamentals bring Information Science as Applied Science domain which has healthy and sophisticated communication with the societies and humanities than that of IT or Computing. Information Science and its professionals are always try to interact Information Science to various places which including Education Sector, Business and Commerce Field, Health and Hospital Administration, Bio Science and Technology, Social Work and so on. The flagship Information Science programme is MS/MSc-Information Science. In USA, MSc-Information Science also ultimately used as MSc-Information Technology; due to its deeper and healthy connection with computing and IT Systems.

Another information related but management and technology connected programme is Information Systems; which is very much popular in USA instead of Information Science. Information Systems programme is responsible for the information solution for the organizational purposes. It is act kind as Business Informatics [24, 25, 26]. Information Systems as helps in management, to take decision and complex situation thus it is also known as Management Information Systems [MIS]. In India Information programmes are available in only universities with common nomenclature and discipline as Library Science, Library and Information Science [*nearly 300+ universities*]. However, only 6-7 institute offer Information Science degree and 3 institutes offer Information Systems. Information Management is offered only 3-4 institutes in India. Virtually, Information Programmes are changes rapidly due to IT and Computing advancement and its interaction in Information Programmes.

TABLE II SHOWING INDIAN HIGHER EDUCATIONAL INSTITUTES AT A GLANCE

Universities/ Higher Educational Institutions	In Numbers	Location
Central Universities	44	Pan India with 28 States and UT
State Universities	304	Pan India with 28 States and UT
State Private Universities	165	Except some states and UT
Deemed Universities	130	Except some states and UT
Indian Institute of Technology [IITs]	16	Bhubaneswar, Chennai, Delhi, Gandhinagar, Guwahati, Hyderabad, Indore, Jodhpur, Kanpur, Kharagpur, Mandi, Mumbai, Patna, Ropar, Roorkee and Varanasi
National Institute of Technology [NITs]	30	Agartala, Allahabad, Arunachal Pradesh, Bhopal, Calicut, Delhi, Durgapur, Goa, Puducherry, Hamirpur, Jaipur, Manipur, Meghalaya, Mizoram, Nagaland, Jalandhar, Jamshedpur, Kurukshetra, Nagpur, Patna, Raipur, Rourkela, Sikkim, Silchar, Srinagar, Surat, Karnataka, Tiruchirappalli, Uttarakhand, Warangal
Indian Institute of Management [IIMs]	13	Calcutta, Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Shillong, Rohtak, Ranchi, Raipur, Tiruchirappalli, Udaipur, Kashipur
Indian Institute of Science Education and Research [IISERs]	05	
Other Central Funded Higher Educational Cum Research Institutes	Approximately 150+	Pan India with 28 States and UT

### ***B.New Age Information Degree: Existing, Emerging and Possible***

Today Information programme and degree are not only deals with information or knowledge or similar facet [06, 22, 28]. Earlier, knowledge organization tools played an important role for Information practice. But advancement of Information Technology brings so many new field and discipline in Information Field. Today specialization in Information programme gained popularity around the world. Information Science programme such as following gain popularity:-

- MSc- Information Science [HCI];
- MSc-Information Science [Usability Engineering];
- MSc-Information Science [DBMS];
- MSc-Information Science [Information Architecture].

However, today several academic units merged together and established a new big academic unit/ school called- I-School or Information School [30, 24]. The department such as IT, Computing, Management, Information Science, Information Studies, Cognitive Studies merged and after interdisciplinary information programme; which are now a days treated as most popular due to the main motto of the course i.e. ‘Information-Technology-People/Community/Society’ Interaction and intersection. It is possible to offer some more specialized courses which is depicted in figure 4:-

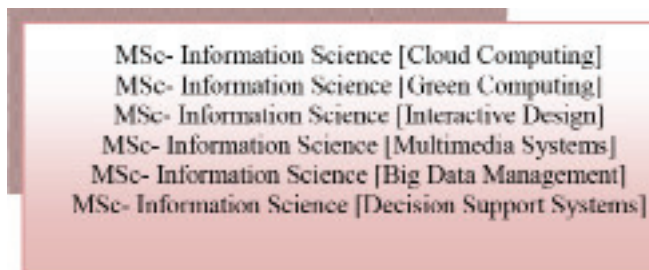


Fig. 4 Depicted specialized courses which in Information Science

### **IV.FINDINGS**

1. The most oldest programme is librarianship as far as information field is concerned;
2. Information Science is the most popular programme available in I-Schools around the world;
3. Information Schools or I-Schools made a separate consortium called I-Schools Caucus believes and promoting ‘Information-Technology-People/Community/Society’ Interaction and intersection;
4. Information Programme still mistakenly treated as Humanities or Social Science field; but many universities introduce information programme in Science faculty due to interaction of IT and Computing, Management in the course gradients.

### **V.CONCLUSION**

Information is power. Information is wealth many ways. Information is driving force for many organizations such as Health, Medical, Education, Government, and Society and so on[22, 23]. Information Programmes are actually right solution for the information utilization and decision support in many cases. As information is responsible for the research thus it is also responsible for the development; whether social or economical or technical. Information Programmes are gaining popularity around the world. Role of IT and Computing in information field lead the Information Programmes offer in IT or Computing department or vice versa which is a good symptom for overall and complete interdisciplinary knowledge development.

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