Information Science and Related Domain and Contemporary Features at a Glance

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Abstract - Information Science is an important domain of interdisciplinary cluster. This domain is a combination of Science, technology, management science, humanities and social science gradients. Information Science, virtually most valuable domain in this age of information, as this domain helps in Information Infrastructure building. There are so many domain very close with Information Science but has significant differences. The close fields are Information Technology, Computer Science, Information and Communication Technology and some other field which are indirect connection with Information Science are- Software Engineering, Computer Engineering, Electronics and Communication Engineering and so on. all these domain directly and indirectly helps in information processing and management and this treated as important gradients and stakeholder of Information Science domain. This paper is talks about Information Science; its need and value including characteristics. Paper also discusses the characteristics of Information Science and its related fields.

Keywords: Information, Information Science, Information Technology, Information Field, Knowledge Management, Digital Divide, Information Divide, Computing, Information Infrastructure, Information Society, Academic Degree, Universities

I.INTRODUCTION

Information Science is an interdisciplinary field of fields combining so many information and technology related domain such as Information Technology, Computer Science, Computer Engineering, Software Engineering, Management Science, Library Science, and Information Studies and so on[06, 09]. Information Science is mainly responsible for information activities; such as collection, selection, organization, processing, management, dissemination of information. Information Science initially treated as domain of Social Science and Humanities nature and mainly practiced in information related foundation such as Information Centre, Documentation Centre, Data Centre and obviously Libraries and Community Information Centre. Information Science is responsible for healthy and sophisticated Information Infrastructure building for almost all type of organization and institutions regardless of its size and nature. Today private organizations, MNC's are the largest stakeholder of Information Science practice. The healthy Decision Making proceeds and keep organization up to date and efficient in general work and hence the business and it's grow is also assists by the Information Science practice. And in many cases, it is treated as domain for Knowledge Economy building [13].
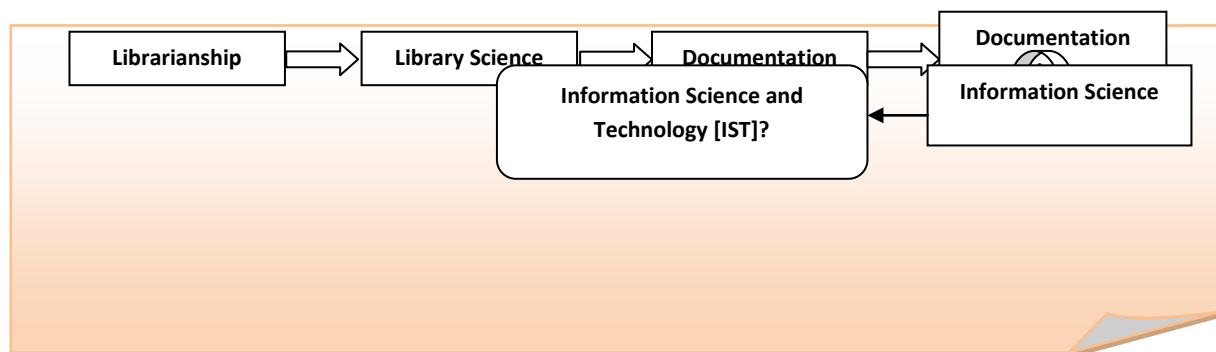

Fig. 1 Showing Changing nomenclature of Information Field

II.OBJECTIVES

The main aim and objective of this study is includes but not limited to as follows.

1. To know basic about Information Science and its basic nature and characteristics in brief manner;
2. To know about Information Science and its need and value and utilization in contemporary scenario;

3. To learn basic about Information Science and its related domain and discipline;
4. To know basic differences of Information Science and allied domain;
5. To learn about running and popular courses of Information Science and related domain;
6. To learn about the changing scenario of information field.

III.INFORMATION SCIENCE AND ITS UTILIZATION

As Information Science is a domain of information; hence it is useful in several information activities such as information collection, selection, organization, processing, management and dissemination. Hence it is responsible for information transfer cycle and information processing and management [20, 21].

Information is prime mover of the society and organization and almost all type of organization these days; directly and indirectly. Information Science helps in general official activities of the organization and help in better service delivery, product design and delivery, modification and so on depending upon need. Information Science play an important role in information foundation which is treated as main domain for establishment such as data centre, libraries, documentation centre, information centre, information systems, information networks and so on[23].

The need of information and document management in other creates some new possible interdisciplinary domain. Chemical data, information and documentation creates a new domain –Chemical Information Science/ Chemo Informatics; Medical data, information and document management in health organization and medical establishment creates the domain –Medical Information Science and hence this way some more domain such as Geo Information Science, Quantum Information Science, Music Informatics/ Information Science and so on. Hence the general organization, special domain/field dealing organization's development ultimately helps in Societal Development [08, 14].
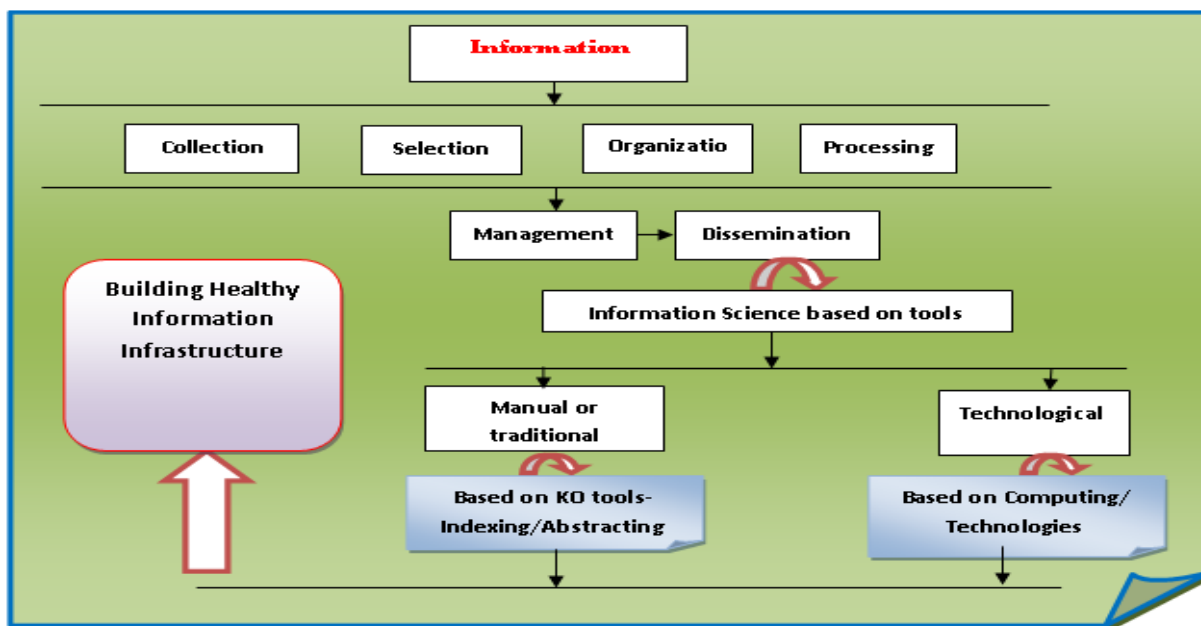

Fig. 2 Showing Role of Information Science including its types

Ultimately Information Science is helpful in healthy public Information Infrastructure building. Community Information Centre and Services are also main tool for the public information system building. And thus it will be helpful in removing Information Divide. Information Divide is an important concern in today's age which is deals with information disparities in society and country, institute to institute, people to people. The development of Information divide and information literacy helps in awareness building and Information Society building and hence it will be helpful in Community Information System building. The development of education and literacy promotes the Digital Divide too. In our society some people are using so many electronic gadget and equipments such as TV, Computer , Internet, mobile, laptop and so on and some people are detach with such service and tools and this creates Information Divide and Digital Divide.

Hence, ultimately Information Science helps better information and knowledge management and help in following dealing.

a. Activities of information foundations;
b. Building Public Information System and Infrastructure;
c. Helps to build Information Society and Knowledge Economy;

d. Building Organizational Information and technological infrastructure;
e. Building Knowledge Grid and Networks.

IV.INFORMATION SCIENCE IN ACADEMICS: DIFFERENT VIEW AND PERCEPTION

Information Science and its related field are Computer Science, Computer Engineering, Information Technology, Library Science, Software Engineering, Communication Engineering, and so on[04, 06]. Following are some definition and meaning of these fields and these information will help to know the exact situation and condition of Information Science.

Information Technology is a field for information processing and management only with the technologies and also needed for Information Technology product such as database, network system, web system, telecom system, multimedia systems.
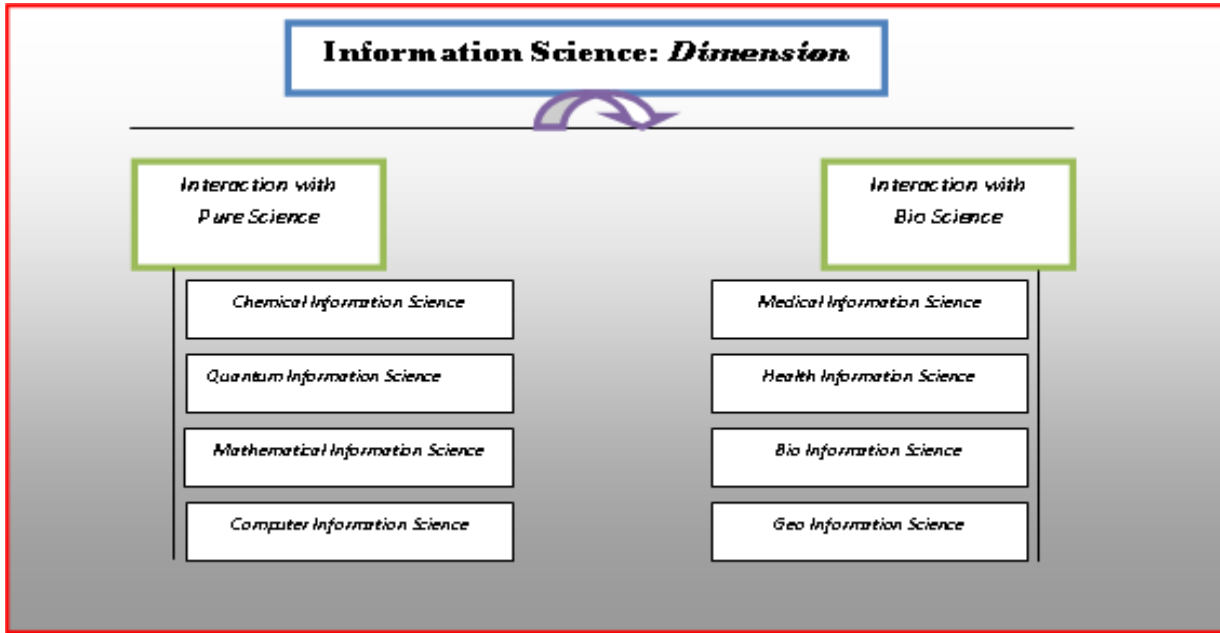

Fig. 3 Depicted creation of some more domain of Information Science focused with Bio Science or Pure Science
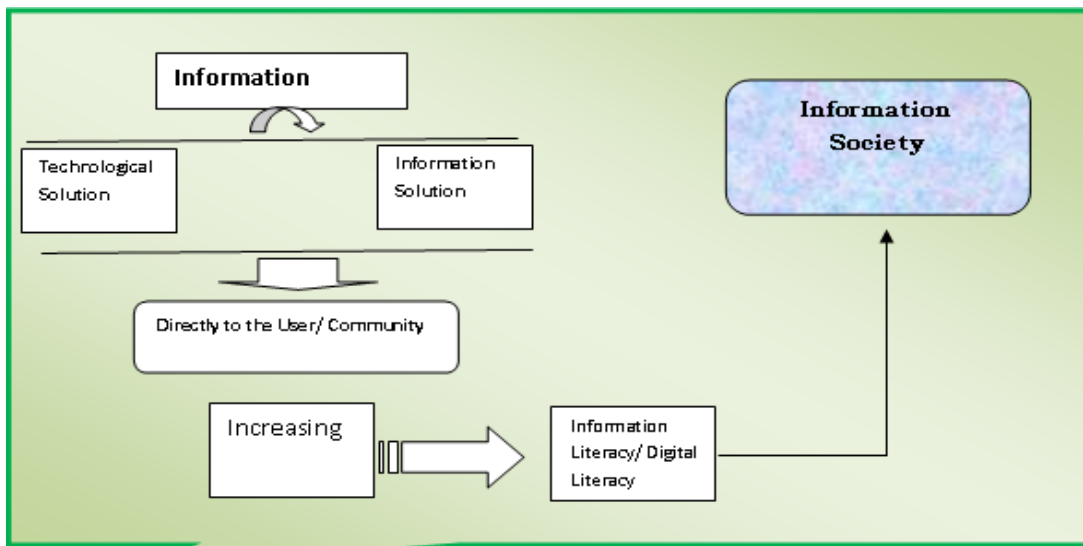

Fig. 4 showing general role of Information Science for Social development through social computing

Computer Science is a Pure Science domain responsible for computer algorithm, software and hardware studies and it's mainly theoretical in nature rather than fully practical computing training.Computer Engineering is mainly responsible for computer device design and development. Computer Engineering is closely related with Software Engineering and Hardware Engineering. Computer Engineering is a study about device and system design with time need and requirement. Library Science is helpful in library activities, it is a study and practice field of library and similar knowledge foundation with back up of the knowledge organization tool such as catalogues, classification, indexing, abstracting and so on. Software Engineering is a domain of software development, modification, and redesign and business process recycling and so on. In Software Engineering students learn how to design a particular software and depending upon organization need. Communication Engineering is a domain which is helpful in communication among the objects with the helpful technologies and mainly networking and satellite technologies. Communication Engineering and some gradients of Electronics creates a separate domain called Electronics and Communication Engineering.

V.FINDINGS

1. Information Science is most important interdisciplinary domain and responsible for healthy information infrastructure building powered by the technology;
2. Information Science and related with both manual as well as computational knowledge organization and management; where as other information related domain are only deals with computational information system activities;
3. In India, the common information programmes are LIS and comes with BLIS, MLIS and Information Science with MSc degree;
4. Recently the integration of Information Science with higher computing and IT results a new nomenclature of Information Science as like, Information Science and Technology [IST], Information Science and Engineering [ISE], Information Science and Computing [ISC] around the world;
5. In India, LIS programmes are offered in near about 300+ institutes where as Information Science programmes are offered in only around 10 institutions.

VI.CONCLUSION

Information Science is changing rapidly, information is prime mover of the society and needed in almost all the organization and institutions and hence, today Information Science associated with so many new tools and technologies such as cloud computing, green computing, HCI and usability engineering and so on. Thus the traditional Information Science nature is changes rapidly [06, 09]. Though, still we can see some basic differences between Information Science with other related information domain

is that, Information Science is deals with information as well as technologies; where as other domain are fully deals with technologies. Information Science deals with some information fundamentals such as Knowledge Organization, Knowledge Economy, Information Society and some allied topic but these gradients are absent in IT/CSE/Communication Engineering , Software Engineering related programme.

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