

From *Documentation* to *Information Science and Technology [IST]*: Philosophical and Technological Changes- A Conceptual Study

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Abstract

Documentation is an important practicing and knowledge field responsible for Document and similar tools development, designing and management. Documentation is classified as two types Active Documentation and Passive Documentation. Documentation is commonly treated as Documentation Science and in some countries as Documentation Studies. Documentation Science is useful in Document Management and Organization in the Institutions, Establishments, Enterprises and other foundation. The advancement of technology; particularly IT and computing changes entire dimension of Documentation and evolved as Information Field; mainly Information Studies/ Information Science. The paper is talks about Documentation; its need and role. Paper specially finds out main changes of information field from Documentation age to IT and Computing age. Paper also describe about changing Philosophical and Technological Changes of the field.

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Introduction

Information is one of the important name in today's age. It is treated as many ways like as wealth, money, power and so on. Information Science is an interdisciplinary field incorporated with so many disciplines such as humanities and social science, engineering and technology, management and commerce and so on. Information Science is called as Science as Sciences. Information Science and Documentation Science-The aim and objective of both field are more or less same i.e. Knowledge Management. However, style, approach and view to manage Knowledge regarding the field are different. Information Science and Documentation Science are responsible for Information and Knowledge collection, organization and dissemination depending upon such tools, techniques; many ways.

Objectives

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

- To learn basic about Information Science and Documentation; including their aim and objective;
- To find out changes in Information Science and Documentation for IT and similar tools development;
- To view Documentation as a Science and Information Science as Multidisciplinary field;
- To learn basic about tools and technologies uses in Information Science and its main differences with Documentation Science;
- To view Information Science and Documentation Science from philosophical and technological point of view;
- To find out future trends of Information Science at a glance.

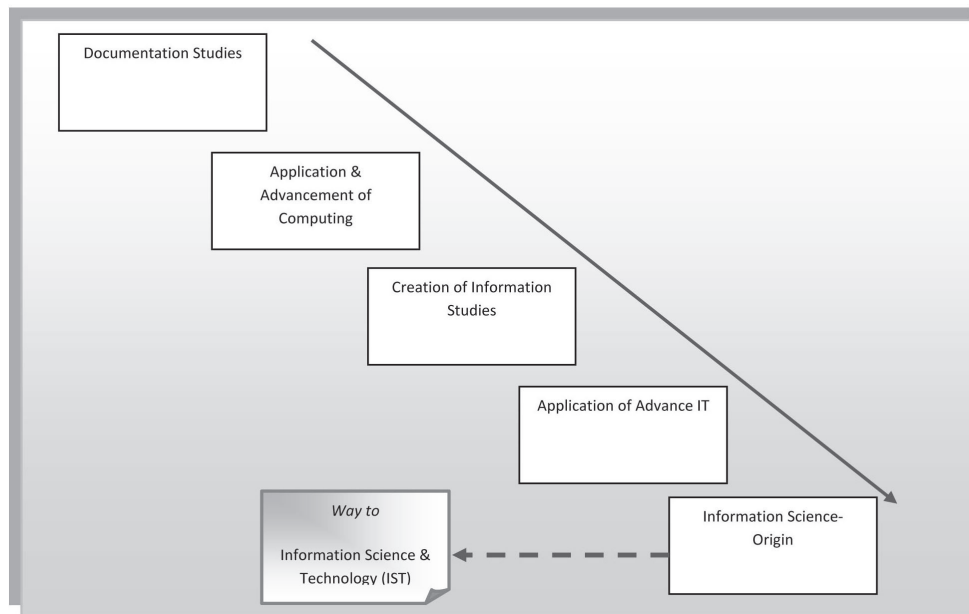


Fig. 1: The Growing Trend of Information Centric & Technology Depended Subject/ Nomenclature

Documentation and Documentation Science

Documentation is the art and Science of document related activities; such as document collection, selection, organization, management and dissemination lead a new nomenclature i.e. Documentation Science, however the concept and nomenclature as 'Documentation' still popular in some of the French Speaking areas and that correspondence to Information Science in general. The field Documentation Science was founded by two French brother Paul Otlet [1868-1944] and Henri La Fontaine [1854-1943]. Actually according to review of literature it is found that, in some French Speaking countries, there are differences in Documentation, Librarianship and Information Science.

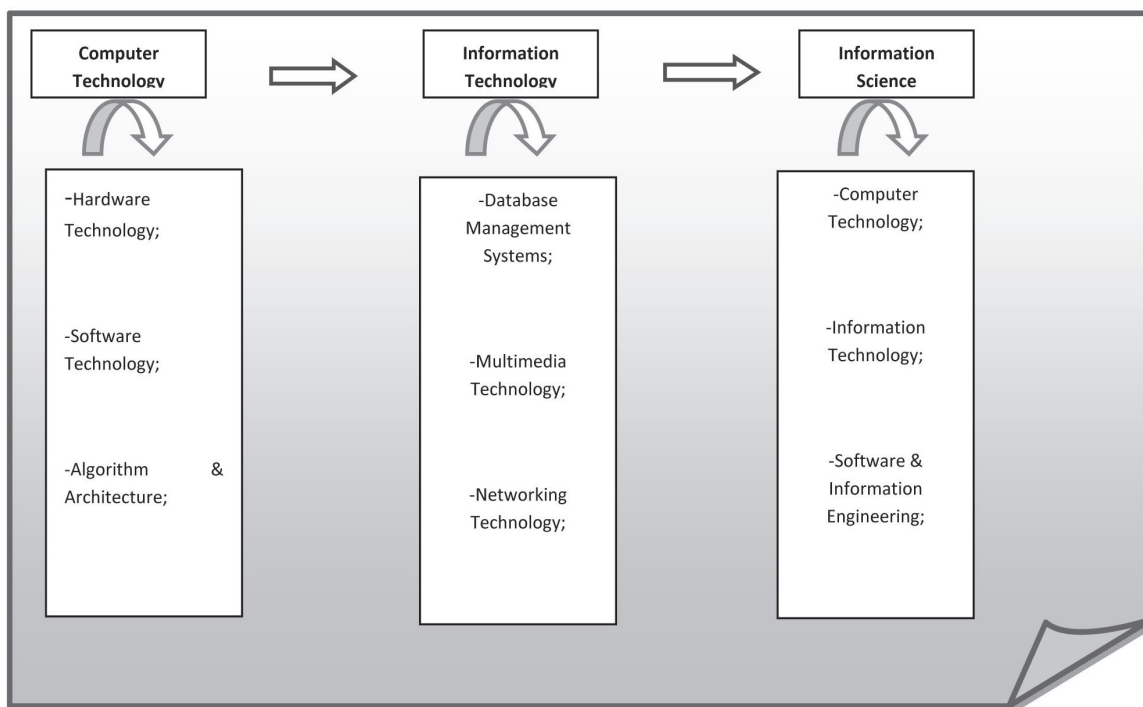


Fig. 2: The Broad Spectrum of Information Science including its Bigger Gradients

These are treated as different nomenclature and as profession still in these countries. In French Speaking and some Countries different establishment and foundation are there with name of Documentation Centre, Libraries and Information Centre; thus the professional of such establishment treat as different dealings. The personal employed at these different kinds of institutions has different educational background. However in recent years the difference between libraries, documentation centre, information centre have, become less clear. Documentation is actually document handling job and professional engage such activities called as Documentalist. Practically the concept of document is much more matches with Documentation Science and Library Science; where several tools and techniques are used to manage document of several types, kinds and sizes. Though recent years use of IT in Document Management changes the entire domain of Documentation Science with a advance knowledge domain.

Information Science and its origin

Documentation and Information Science have so many difference and similarities. Actually both the field are responsible for Knowledge Management; directly and indirectly. Information Science is a Science of Science incorporated with so many field such as Information Technology, Computer Science, Library Science, Management Science and so on. Information Science is responsible for information collection, selection, organization, processing, management and dissemination with manual or computational tools and technologies; where as Information Studies and Documentation Studies are most of the times uses manual knowledge organizational tools and techniques. Practically recent years Forhmann [2004], Furner [2004], Konrad [2007] considered Documentation as much more concentrated with Library Science and Information Science with information. However, it is important to note that, most of information scientists' claims that,

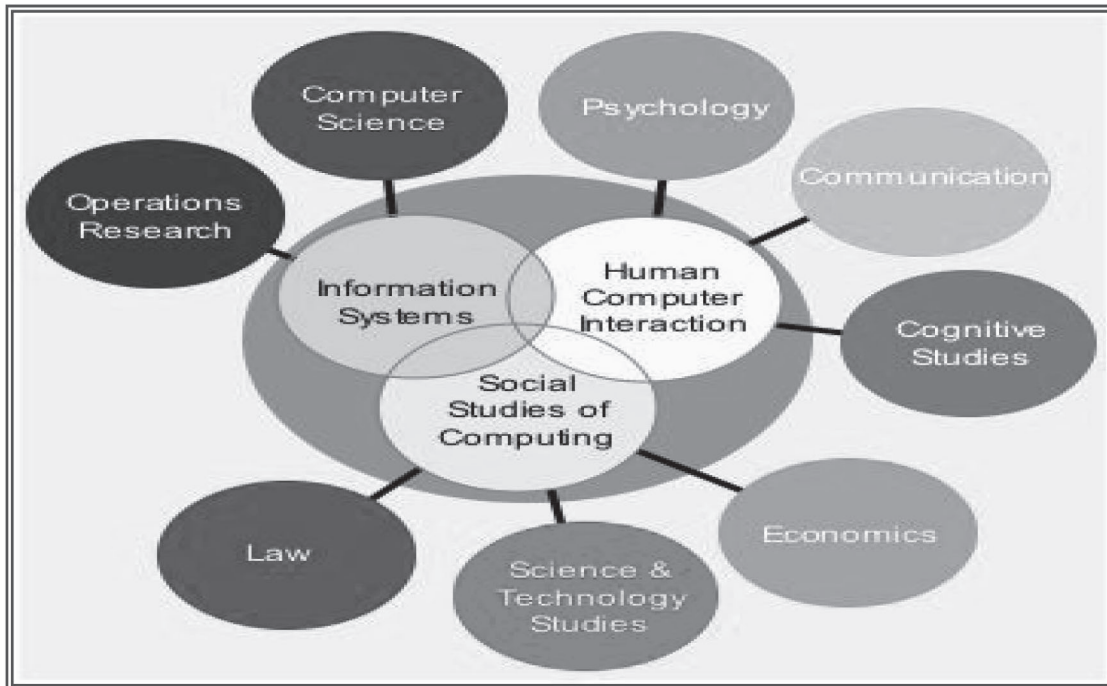


Fig. 3: Shows the Interdisciplinary broader connection of Information Science [35]

Information Science though come from Documentation Science, but the advancement of IT and computing changes entire dimension of Information Science and today treated as advance Applied Science domain dedicated to information processing and management.

Though some claim that, Documentation field generally changed its name to Information Science in 1968, but some uses of the term Documentation still exists and there have been efforts to reintroduce the term Documentation as a field of study.

Documentation Science and Information Science: Different Philosophical view and Technological Equipments

Documentation Science is much smaller than that of Information Science many ways. First of all, Documentation Science is deals with 'Document' and where as Information Science is with Information; so as far as scope and periphery is concerned, Information Science is bigger.

- Information Science is a discipline of discipline and having nature of Social Science, Management Science, Technologies and Engineering related domain; where as Documentation Science mainly integrates with Humanities [Library Science] and Management Science [Document Management]. Practically the tools and techniques also different in these field, Documentation Science is mainly deals with some manual techniques such as indexing, abstracting, cataloguing, classification to identify, collect, select and manage Document and similar one.

- However, recently Document Science also uses some tools and Computational weapon and these are automated indexing, automated abstracting, automated cataloguing, and automated classification for Document Management. Here Documentation Science uses some strategy as Library Science uses for Book Management in Libraries. The only difference is in Place of work or working area. Documentation Science mainly practices in offices and organizations where as Library Science mainly practices in knowledge foundation such as Libraries, Information Centers and similar one. Documentation and Information Science matches their aim on 'Information'.
- Formann [2004] discusses how the idea of information as the subject sought, processed, communicated and synthesized sets the stage for a Paradox of Scientific Literature by simultaneously supporting and undermining its significant for research front work.
- Actually it was the tendency since 1968 [when the term Information Science originated] i.e. use of information instead of documentation. Since then so many changes we may find out on Documentation and Information Science. In 1968, American Documentation Institute changes its official name as American Society of Information Science. In Europe a special section in the libraries are initiated called 'Documentation Unit'. Where as in USA name of Information Unit was used. Since then several departments, academics was established on Documentation. For example, in 1996 University of Tromso in Norway started a department called 'Documentation Studies'. In 2002 the Document Academic was established by SIMS, University of California, Berkley.
- Though Latin root and Green origin Information still treated as most powerful and useful domain deals with knowledge management. Information Science deals with separate view and idea for Information Management. It uses so many computational tools and techniques for Information Management such as:
 - Database;
 - Search Engine;
 - Communication Networks;
 - Multimedia Based Image Processing Systems;
 - Image Retrieval and so on.
- However, Information Science changes its name to Information Science and Technology; due to advancement of technologies and tools such as:-
 - Networking Technologies;
 - Multimedia Technologies;
 - Communication Technologies;
 - Database Technologies;
 - Computing Technologies and so on.
- The advancement of IT and computing in Information Science changes entire information processing and management; which includes information collection, selection, organization, processing, management and dissemination and so on. The newer tools and technologies such as Cloud Computing,

Usability Engineering, Green Informatics, Big Data Management changes entire domain of Information Science.

However, one thing is common in Information Science i.e. it mainly responsible for the Information Management and interacts with Document Management too. Information Science is responsible for interaction of Information-Technology-People; where as Documentation is only responsible for Document Management and similar task. More over, Information Science is an Applied Science domain and close to Engineering domain with close communication with Management Studies.

Findings

- Documentation Science, Information Science, Library Science are all deals with Information and Knowledge Management but uses separate tools and strategies for management;
- Documentation Science, Library Science manly treated as Humanities domain where as Information Science mainly treated as Science and Technology domain;
- ‘Documentation’ the term mainly popular in Europe where as Information mainly popular in USA and western countries.

Suggestion

- Information Science and Documentation need to interact for better Information Management and Knowledge Management research;
- ‘Information Schools’ may be established and there both Documentation and Information Science may be offered;
- Automated Techniques and Advance Technologies need to be included in Documentation for better advances in Documentation Studies.

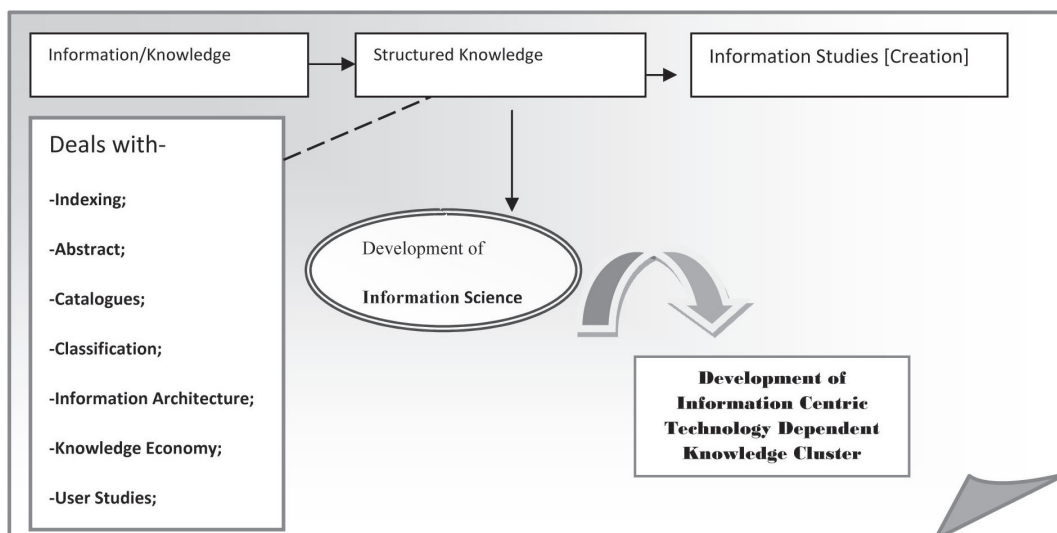


Fig. 4: The nature of Information Studies emphasizing origin of Information Science (IS)

Conclusion

Information was readily deployed in empiricist philosophy because it seemed to describe the mechanics of sensation: objects in the world inform the senses. Documentation Science and Information Science both are important name for better Information Infrastructure building. Some technologies such as Networking, Multimedia, Cloud Computing, Usability Engineering, HCI are really important name of few which are doing well for better Information Management many ways. Similarly, academics are also doing well for integration of several knowledge domains in Information Science curriculum and makes IST for better Information-Technology-Community/People interaction.

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