

# Free research paper on information science

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Information science is that branch of science concerned with the storage and reclamation of information with the aim that it can be useful at a time in the future. Over time, the art of information collection and storage has evolved to be the scientific field that we know of today. It has become a professional discipline.

## 2. A multitude of information sciences?

Information science is a broad term used to describe various disciplines concerned with the management of information. A good example is Information technology (IT) which is concerned with the use of electronic means to store, retrieve and manipulate data. It largely makes use of the computer for this purpose. The physical sciences - Physics in particular, also boasts of several concepts that can be said to be related to information sciences. All these point to the fact that information science as a concept can take on various connotations in different disciplines. Its meaning would depend on the circumstance in which it is being used.

## 3. Definitions of Information Science

In light of the above submissions, one would realize that it might be a herculean task trying to give a specific meaning to Information science. Several definitions have been used to describe this concept. Some of them would be exposted below.

the American heritage science dictionary defines information science as " the scientific study of classification, storage, and retrieval of recorded knowledge." it goes on to liken information science as that science that deals with the development of ways of classifying information, like in form of a library card catalog or the use of digital means to store information in form

of an archive in order to retrieve specific information at a later date. It also goes on to describe it as involving the appraisal of historical means of storing information, such as papyrus, microfiche and paper.

The world English dictionary put this information succinctly when it defined information science as " the science of collection, evaluation and dissemination of information, often employing computers. This definition implies that information science can still be practiced even without the use of computers.

Information science was defined in 1968 as a " scientific discipline that investigates the properties and behavior of information, the forces governing its flow and the ways of processing this information for easy accessibility and usability". It goes on to elaborate on this by describing information science as the body of knowledge relating to sourcing, collecting, organizing, storing, retrieving, interpreting, transmitting, transforming and utilizing information. This definition is all encompassing and gives a broad definition to information science, not limiting its scope to the use of computers but including the use of both natural and artificial systems.

#### 4. History

Information science as a field of study emerged post Second World War. It did so along with some other disciplines, among which was also Computer Science. It emerged concurrently with the increasing pace of scientific and technological advances which commenced at the turn of the 20th century. The development of the field can actually be traced to Vannevar Bush, who wrote an article about the growing need for the establishment of a system

for categorizing, storing and retrieval of information. He made this submission in view of the increasing complexity keeping track of the exponential growth of technical and scientific information, vividly described as information explosion. Bush suggested that the emerging field of computing and information technology can be used to combat this problem. This period onward can be described as the period of modern day information science. With this in mind, all the history of information science before this period qualifies as the early period of information science. Information science history in this period was studied retrospectively, i. e. after the real emergence of the field as a science.

The pre- information science history dates back to the history of man. Man has always been involved in the collection, manipulation, recording, classification and dissemination of information from time immemorial. However, in terms of a formal institution, information science can be said to have emerged in 1655 with the publication of the first issue of Philosophical Transactions which is widely acclaimed to be the first scientific journal. This journal was published by the London Royal Society. This trend continued with the publishing of other Journals throughout the 18th century. The Library Company of Philadelphia was established by Sir Benjamin Franklin in 1731. It was the also a first, being the first library not being owned by the government.

The acclaimed first medical journal was also published in 1736 in Paris, named Academie de Chirurgia. The 18th century also boasts of the beginning of mass printing with the use of lithography.

Information science started taking shape as a discrete entity, different from

other disciplines in the 19th century with the invention of the punch card system by Joseph Marie in 1801. This system could be described as the use of memory storage in the storage of patterns. It was a huge step in information science. Also, giant strides continued to be made with the development of the " difference machine" and later on, the " analytical machine" by Charles Cabbage.

It should be noted that all these inventions were not made in the field of information science as a subject or field of study. Rather, these inventions are best described as methods that can be likened to the application of information science. This is because at times, there was no field of science that can be aptly described as information science. As stated earlier, this history is one in retrospect. Other backgrounds to the evolution of information science include the invention of an analogue computer by Lord Kelvin in 1872 that could predict the tides.

The organization of scholarly literature marked the beginning of modern day information science. Also, the evolution of information science continued with the emergence of the concept of documentation science in the 19th century. Scholars in this field underscored the importance of utilizing technology in organizing and storing information. Otlet and Lafontaine predicted that technical innovations and globalization will play a pivotal role in the creation of the " information society". Otlet developed the Universal Decimal classification which is the foremost indexing system for academic fields in bibliography.

In the last 50 years, the journey to the present day information science has been accelerated with the development of digital means for managing

information. Information has been better organized in libraries with the development of digital libraries that can be accessed by individuals from their personal computers, anywhere in the world. As a result of the growing accessibility of the internet to many computer users in the world

## 5. Topics in Information Science

there is a lot of controversy over what is information science and what is not, several disciplines have been identified that lay some form of claim to information science. Some of them are archival science, communication studies, computer science, documentation science, informatics, information management, information systems research and internet studies to mention just a few.

One thing is common to these various disciplines though, and that is the fact that all these disciplines. A lot other disciplines which has not been mentioned here all contribute in a way or the other to the development of information science. They are all needed in one form or the other to successfully manage, store, manipulate and retrieve information.

## 6. Research

As of today, many educational institutions offer information science as a course of study at both undergraduate and post graduate levels. Information science scholars are also found in other fields such as law, library science, sociology, law, and communication and computer science.

## 7. Conclusion

Information science is a field of science currently in evolution. It is still an interdisciplinary field whose role is not yet clearly defined. From its history, it can be deduced that various scholars and professionals from different fields

of science has actually contributed to the field we now refer to today as information science. I am of the opinion that this trend would continue, even in future. As time goes on, the definition, scope and function of information science would continue until all and sundry come to a logical conclusion on what information science, as a field, should be like

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