What is Information Science? Disciplines and Professions*

We begin by asking what information science is, as an academic discipline and profession. Obviously, and simplistically, it is the science of information. But what does this mean? There are three main answers to this question. One considers information science as being concerned with computing, algorithms and information technologies, a second with information as related to entropy in information theory and information physics, a third with information science as being concerned with information recorded in documents, with meaning and knowledge, and hence as growing from the older disciplines of librarianship and documentation.

This gives us a general idea of the nature of the subject. But there is still scope for much difference in viewpoint as to exactly what the subject comprises. A range of other authors have expressed similarly diverse views as to the best way, in detail, to understand the information science discipline.

Information science is clearly both an academic discipline and an area of professional practice. We will think first about the discipline, although we should note that there have always been some doubts as to what extent it is a real discipline, still less a “true science.” One way to accommodate the wide range of views about, and diverse approaches to, the subject within a coherent framework is to regard information science as a field of study. A field of study is an alternative to “disciplines” based on a unique form of knowledge, such as mathematics or the physical sciences, and to “practical disciplines” based on one of the forms of knowledge but oriented to solving practical problems, such as engineering or medicine. A field of study is focused on a topic or subject of interest, using any of the forms of knowledge — sociological, mathematical, philosophical etc. — which may be helpful in studying it. This is in order to keep the subject within sensible bounds, and also to restrict the focus to recorded information, produced and used by humans. Information science is then understood as:

a multidisciplinary field of study, involving several forms of knowledge,
given coherence by a focus on the central concept of human recorded information

This gives us a conceptual model for information science as an academic discipline. Information science can best be understood as a field of study, with human recorded information as its concern.

Debates about what topics and subjects make up information science, and which of these are its essential “core,” have rumbled on in the literature for many years. They have typically taken two forms: attempts to enumerate the components of information science and attempts to produce “maps,” literal or metaphorical, showing how these parts fit together.

The curriculum for information science education has been much debated over the years; its core has been argued to comprise a variety of topics, including human-computer interaction, information literacy, information management, documentation, library management, knowledge management, information organization, information society studies, bibliometrics, information seeking, and information retrieval.

We have to conclude that this confirms the picture of information science as a broad and diverse discipline, and that it is difficult to point to a small and unambiguous set of topics which comprise it. Although we have so far focused on information science itself, there are other information-related disciplines which link to information science from several different perspectives, and we should consider these. Information science has overlaps with numerous other disciplines and professions. Indeed, because of its status as a meta-discipline, a little like philosophy or education, it can be seen to have links with all other disciplines, since all have some information and knowledge extensions, and hence information scientists may contribute to all.