Organization of Knowledge: An Interpretive Approach

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The paper argues that information science in general and organization of knowledge in particular needs to establish a clear epistemological foundation, which takes into account that the field should be studied as a human science. It is argued that the a definition of knowledge is needed, and suggests that Wittgenstein's concepts of 'form of life' and 'world pictures' could be used as frameworks.

Introduction

The major challenge for information science at the dawn of the millennium is to establish an appropriate epistemological foundation for the field. This paper suggests an interpretive approach to information science in general and more specifically to organization of knowledge.

There has in recent years been a growing dissatisfaction with the dominating philosophy within information science, which—more or less explicit—argues for an approach that establishes the field on an empirical scientific basis. This movement suggests an approach to the field which is based in the humanistic aspects of the field. A few scholars within information science have recently argued for such a reorientation of the approach to the field (Budd 1995; Dick 1995; Cornelius 1996; Hjørland 1997). A humanistic approach entails that focus is shifted towards the interpretive aspects of the collection-organization-retrieval-evaluation process, which typically is used to define the scope of the field.

Epistemological discussions have very often centered around attempts to define the concept of information (Frohmann 1992), which has resulted in an emphasis on artifacts such as indexes, documents and abstracts, at the expense of humans such as authors, indexers, abstractors, and users (Dick 1995). This is the most important change in focus for an interpretive approach. The object of study for the field has to shift focus from

the artifacts used in the collecting-organizing-retrieving-evaluating process to the people in the process. The implication of this is that the field should base its methodology in approach where the human interactions and processes are stressed and less in empirical studies, and other objective approaches. The field should be studied as a human study – a study wherein the pursuit of laws is a pedantic affection (Natoli 1982). The larger methodological framework for a phenomenological approach to the field has been suggested by Benediktsson (Benediktsson 1989).

A humanistic approach to the field might be rejected, since it may tend toward epistemological beliefs which argues a subjective idealism. This paper argues that information science in general and organization of knowledge in particular could be placed in a humanistic tradition without losing meaning. A standpoint that focuses on subjective understandings of the world might not at first seem applicable as basis for organization of knowledge. But the interpretive approach is based in the hermeneutical-phenomenological tradition, which focuses on the social context as the determining factor for meaning.

This paper suggests that Wittgenstein's (1958; 1969) concepts of 'form of life' and 'world pictures' could be used as frameworks for organization of knowledge.

Shifts in Focus for LIS

In a recent article Budd (1995) calls for a clarification of what he calls the "ontology of the library." The ontology of the library is the core of the library's being, the reason for the library's existence. Budd states that the reason and the core of the library's existence is "to collect, organize and provide access to information" (1995, 306). This is a very general description, which is nonetheless valuable in the sense that it clearly and simply states the basics of the field. Budd's definition seems to suggest that *information* is the central concept of the field. However the sentence "to collect, organize and provide access to information" contains *two* notions, namely 1) the *process* of collecting, storing and retrieving and 2) the *object* of the process, namely information.

Earlier approaches have tended to focus on information as the basis of the field, either in the form of documents or as something contained in books and documents. It is the *people* in the process of collecting-storing-retrieving information who should be the focal point of the field, not the object, information. In Kaplan's (1964) definition of the core of the library, users are explicitly present (1964, 296):

> What the library does or is to do depends upon the people for whom the library is doing it. Everything in the library must ultimately be related to its uses, and these uses in turn must ultimately be dependent upon the users. Words do not mean anything, *people* mean thing by words. Information means nothing, but *people* are informed and then take informed action or make informed decisions.

The LIS field must be based on a philosophy which takes into account the people involved in the process. The study of library and information science is the study of *humans* and their relations to libraries, information systems, etc.

Object of Study

In searching for the object of study for the LIS field, it may be useful to discuss the foundation of the field. Miksa (1985) has discussed the overlap between *library science* and *information science*.

Miksa argues that library science grew out of the "sociological methods and thought of the 1920s and 1930s," (1985, 159) which view the library as a social institution. Library science focuses on both internal aspects of libraries such as library organization and management, and external aspects such as service to its patrons and the library's function in society.

Information science grew out of the "communications, behavioral and system science movements following World War II" (Miksa 1985, 159), and its major focus has been the phenomenon of information. Information scientists are interested in the generation, transfer, organization, storage, retrieval and use of information, or in other

words, a communication process. This is of course also the central concern of librarians (Miksa 1985, 160-161):

> That the two disciplines are intimately related may also be seen in the following equation. Organized knowledge transfer, the central concern of information science, always takes place in a social institutional context, whereas social institutions dedicated to providing access to knowledge records, the central concern of library science, always have at their core the process of information transfer. The key to the relationship is, of course, information or knowledge, the stuff at the center of both knowledge transfer and libraries and information agencies as social institutions.

The LIS field's object of study is the human handling of information. Information is in this sense defined as the part of the communication process which informs someone, and somehow yields knowledge to this person.

Information must in this sense be regarded as a subjective construct and not as an objective object, which can be studied from a distance. When information is regarded as a subjective construct, there should be a change of focus for research methods used in LIS (Benediktsson 1989, 226):

> There should be less emphasis on empirical methods, which is only possible if it is acknowledged that information or information needs are not measurable or prescriptive.

Olson (1995) has argued that instead of focusing on qualitative and quantitative research methods focus should be directed toward epistemological and ontological positions.

A field of study which has a subjective construct as its object of study calls for other methods than those used in sciences with 'objective' objects of study. Natoli (1982, 164) has argued that:

> It is my contention that research in librarianship cannot be modeled to any great extent on an objec-

tive approach, not without producing conclusions far removed from the reality of librarianship as readily perceived by every librarian in the field.

Natoli argues that the LIS field must adopt methodologies which do not require an objective object of study. He further argues (1982, 163):

> The goal of research in a human study is to recreate the human condition of the object of study in the mind of the reader by utilizing the reader's natural propensity to both experience and understanding.

Natoli holds that the LIS field should be regarded as a *human science*, and that a human science must use methodologies where the *interpretation* of the object of study becomes clear for the reader.

The LIS field can hence be characterized as a *postmodern human science*, whose focus of study is the communication process involved with the generation, transfer, organization, storage, retrieval and use of information process. In this view new methodologies are needed, as pointed out by Benediktsson (1989, 205):

> Therefore, quantitative statistical methods can be used only in those areas in which the human perception of a situation is not a factor. The presence and validity of human perception is a clear indication of phenomenological-hermeneutical methods.

Since LIS in general and organization of knowledge in particular revolves around human perception and human interpretation, a phenomenological-hermeneutical approach seems reasonable.

Epistemological Commitments

In discussing the representation and organization of knowledge one make some epistemological commitments. These commitments could be made explicitly or, as more common, implicitly. Scholars in the LIS field seldom make their epistemological philosophy clear and explicit.

A small number of scholars within our field have suggested various categories of commitments and discussed their implications.

Svenonius (1997) defines three major approaches to definition:

> *The classic approach.* In which the organization is seen as reflecting descriptive knowledge of essences and as such seen to communicate knowledge about the real world.

> *The nominalist approach.* In which the organization is seen as reflecting nothing but definitions of names of things and events.

> *The linguistic approach.* In which the organization is seen as the usage of the organization.

Svenonius argues that in choosing one of these approaches one is forced to make certain ontological commitments. It is either claimed that we represent and organize the real world as it really is, or that we are only dealing with some arbitrary definitions and mental constructs of the world, or that the organization is a reflection of the usage of the words and the social context in which the words are used.

In a similar attempt, Qvortrup (1993) defines four basic conceptions of information. He argues that the concept could be regarded and defined as:

> Information is a difference in reality, i.e. something existing in the external world;

> Information is a difference which makes a difference, i.e. a difference in reality which causes a mental difference;

> Information is a difference which finds a difference, i.e. a conceptual difference which finds or which is confirmed by something in the outer world, and lastly

> Information as a cognitive difference which brings forth an idea about an external world.

Qvortrup's aim is to set the stage for a fundamental discussion of the ways in which the core problems of the information science field

can be approached. The major distinction in his approaches is the determining factor which has the final influence on the production of information. It could be argued that this is the construction of the external world, the individual mental constructions, or that it is the social setting of the interaction between the information bearing object and the person perceiving the information.

Qvortrup argues that the latter social constructivistic approach is the most sensible. In such an approach information is something that humans make up from, or find in the external world, e.g. in documents.

Hjerppe (1994) has provided a definition of documents which relies on the social context as the determining factor for the meaning of the document. He says "a document is something that contains/carries a text, a text is something that can be read, reading is an acquired skill, the meaning of a text is a social construct" (Hjerppe 1994). Hjerppe here argues that documents generate individual subjective constructs of meaning; the meaning of a document depends on the reader of the document. This could imply that any interpretation of a document could be as good as any other, which would generate tremendous problems for classification and indexing. Hjerppe argues that the meaning of a document have two components, namely a private and a public meaning. Beghtol (1986) has argued likewise, and suggested that documents contain aboutness and meaning, where the former is relative stable and alike for all readers, and the latter is determined by individual preferences. These conceptions are based on a tradition within LIS which originate back to Fairthorne's arguments (Fairthorne 1969). Fairthorne argued that aboutness consists of two components; extentional aboutness and intentional aboutness.

Such a distinction between public and private meaning is only possible to keep at a theoretical level. In the actual determination of the subject matter of documents, it is not possible to distinguish between the information which is private and the information which is public. To the indexer or classifier it is simply meaning or knowledge.

It is here claimed that this knowledge is closely tied to the social praxis and context in which it is used.

Knowledge in a Wittgensteinian View

Wittgenstein was in his book *On Certainty* (1969) much concerned with the concept of knowledge. It should be noted that most of the discussion in *On Certainty* also can be found in his better known work, *Philosophical Investigations* (1958), and that claims such as "Wittgenstein defined...", "according to Wittgenstein...", etc. are stated with some reservations. A large part of Wittgenstein's work is formed as discussions between himself and some imaginary person, and statements about various ideas tend to change in form over time.

Wittgenstein argued that to understand a statement is be part of a praxis. The fact that humans constitute discourse communities in which it is possible to communicate fairly well, rests on the premise that humans—through a good amount of conscious and unconscious training—learn to use words in the same manner. Wittgenstein compares the use of words to the use of tools. There are various uses of a hammer – but somehow we have agreed on the few correct ways a hammer could be used. The functions of words are as diverse as the functions of tools. The meanings of words are defined in *language games*. As such, words (and language) are not defined by what they refer to, or signify, but by their use.

Wittgenstein named these discourse communities, where words are used and defined, 'forms of life'. To speak a language is part of an activity; what we do besides using language cannot be separated from our use of language. Judgments of right and wrong, true and false, and meaning in general is based in these forms of life. It is within these forms of life that meaning is determined–that it is judged whether or not a language game is understood correctly. The same could be said to be true for organization of knowledge. Any judgment of the organization, representation and use of knowledge rests in a form of life.

In *On Certainty* much of the discussion revolves around what it is possible to *know* and how it is possible to claim to *know* something. Wittgenstein argued that the claim to *know something*, only makes sense within a certain unquestioned context. This context is called a 'world picture'. World pictures are not something that we can acquire or change or replace as it pleases us. World pictures are funda-

mental to the way we understand the world, hence also to the way we organize and represent knowledge. A world picture is a system or structure of—explicit and implicit—assumptions about the world, which is not easily removed or changed. Four points can be made which defines the concept of world pictures:

1.   Our world picture is closely related to our praxis.

2.   Our world picture rest neither on empirical knowledge nor on verifications of hypotheses.

3.   Our world picture is not easily changed due to empirical information which contradicts our world picture.

4.   A shift in world picture will be similar to a conversion—a fundamental change in the view of the world.

The upshot of this is that we regard our world pictures as true and correct, but whether they correlate with reality is beyond discussion. Since our world pictures are such fundamental parts of our approach to the world, an investigation and discussion of them is not possible. Because the world picture it self would form the basis for such an investigation. Thus, a discussion of how to organize and represent knowledge is limited and shaped by our world pictures. If we wanted to explore whether a particular organization of knowledge where correct or true, we would not have any thing to hold the organization against.

Even though this sounds like relativism, that is not Wittgenstein's mission. He argues that we must have the openness and ability to understand others' world pictures, and to judge their world pictures. Suppose someone claims to know that Canada is a member of the European Union, we would know that the person is wrong. We would have knowledge which the person does not have and we would know this. Wittgenstein's way out of relativism is a call to common sense. Common sense is something which is shaped in language games. He is back at the social context.

Therefore, as individual as the concept of world pictures may sound they are in fact relatively stable. They are shaped through language games and as such part of a social praxis, and consequently more or less alike for all human beings in a particular social praxis.

Concluding Discussion

The major challenge for information science at the dawn of the millennium is to formulate an appropriate epistemological foundation for the field. It has here been argued that such a foundation for the field should be based in a humanistic oriented approach, where the people in the collection-organization-retrieval-evaluation process are in focus. It was further argued that the social praxis is the determining factor for meaning, information and knowledge. Lastly it was argued that Wittgenstein's concepts of form of life and world pictures could be used as frameworks to study the field.

Such an approach to the field focuses on the interpretative aspects of the collection-organization-retrieval-evaluation process, and hence could be named an interpretive approach.

The implications for the organization of knowledge in such an approach is that the immense focus on being as *user-oriented* as possible change meaning. To be user oriented generally means to be able to organize and represent knowledge as closely as possible to the users' way of thinking; in other words, to organize knowledge according to the users' world pictures. But, if Wittgenstein's argumentation is followed, this would clearly be impossible and to attempt to do so would be absurd.

It must be made clear that organization and representation of knowledge takes place within a particular social praxis. This praxis is the determining factor for the organization and representation. We would also expect that if the principles for the organization and representation are made clear and explicit, the organization and representation would be relatively stable over time.

Therefore, the users of a particular information service must attempt to understand the form of life and world picture which shaped that service. The responsibility for the best search results isthe users, the responsibility for the best organization and representation of knowledge is the information service.

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