Deliberate Bias in Knowledge Organization?

Abstract
“Bias” is normally understood as a negatively loaded word, as something to be avoided or minimized, for example, in statistics or in knowledge organization. Recently Melanie Feinberg suggested, however, that “if we cannot eliminate bias, then we should instead attempt to be more responsible about it and explicitly decide on and defend the perspectives represented in information systems”. This view is linked to related views: That knowledge organization is too much concerned with information retrieval and too much described in the mode of scientific discovery, as opposed to the mode of artifact design: “From the literary warrant of Hulme to the terminological warrant of the Classification Research Group (CRG), to Hjørland’s domain analysis, the classificationist seems like one who documents and compiles, and not one who actively shapes design.”

This paper examines these claims, which may be understood as questions about subjectivity and objectivity in classification and about positivism versus pragmatism in research. Is KO an objective and neutral activity? Can it be? Should it be? A dominant view has been that knowledge and KO should be understood as a passive reflection of an external order. This has been termed the mirror metaphor of knowledge and is related to empiricism and positivism. The opposite view — which is in accordance with both Feinberg and Hjørland — states that knowledge organization should be functional and thus reflecting given goals, purposes and values. It is related to pragmatism in philosophy.

Introduction
Melanie Feinberg has recently suggested some important principles in the theory of knowledge organization (KO). Her main suggestions are 1) That knowledge organization should be seen as a process of active construction rather than as passive discovery (Feinberg 2007a) 2) that a knowledge domain is not a single entity identified by expert consensus, but that information system designers should describe and defend the criteria by which they construct a domain. Her prize-winning paper (2007b) contains the following conclusion:

I have argued that Hjørland’s description of domain analysis seems to imply the concept of a single domain per subject area, structured by a common set of principles (specifically epistemological underpinnings), with a reliance on expert opinion to evaluate the stability of the approaches are seen as undergirding each domain. This single-domain approach thus appears to rely on assumptions that may not hold true in all situations and that constitute a form of unacknowledged bias. A single domain necessitates ill-defined domain boundaries (which presents additional problems due to multidisciplinarity) and is inevitably incomplete, while lacking the requirement to explicitly justify what the domain includes and how it is structured. In contrast, recognition of multiple domains for a single subject area requires that an information system designer describe and defend the criteria by which a domain is constructed. Her prize-winning paper (2007b) contains the following conclusion:

The present paper contains arguments that the views of Hjørland and Feinberg are basically in agreement rather than in conflict with each other as suggested by Feinberg. Furthermore it seeks to clarify some issues in the domain analytic position.

Describing and classifying domains of knowledge
What is psychology? What is archeology? What is a domain? It is hard to deny, for example, that Sigmund Freud and B. F. Skinner are famous names in the history of psychol-
ogy. However, their understanding of what psychology is was very different. One could possibly argue that their conception of psychology was so different that they excluded each other from the domain: Skinner accepted only observable stimuli and reactions and their precise measurements as belonging to the field of psychology, whereas Freud saw such studies as providing trivial information with no real importance, for which reason he constructed psychoanalysis as a separate field. Yet we consider them both parts of the history of psychology. Gjerløff (1999) writes that before 1830 history and archaeology were considered one discipline, but between 1830 and 1890 an understanding was developed which separated them. This self-understanding is connected with a certain view of what historical sources and archaeological sources are and how they are interpreted. Gjerløff argues that this understanding is problematic and the two fields need to be better integrated and have a broader understanding of the concept of sources. It may thus be argued that the understanding of archeology as a discipline separated from history is just a historical construction which has served some interests, perhaps first and foremost some professional interests among professors and museum directors. We may agree or disagree with Gjerløff’s point of view. If we agree, it has important consequences for how knowledge in the fields of archeology and history should be organized. On the other hand, if one librarian agrees with Gjerløff and the rest of society still finds that those two fields are distinct and different, should this librarian just disregard all other opinions? Is description and classification just based on individual opinion? Is any opinion as good as any other? If this last question is the case, then any kind of KO is as good as any other, implying that the field of KO is without a methodological basis.

It is important to realize that disciplines are dynamic and theory dependent. They are also dependent on social power structures, first and foremost in the form of financial support. Toulmin (1972) differentiates between the content-knowledge of a science and the institutional aspects of science, such as the professional forums. He suggests that science is generally continuous because either the content or the institution will remain stable while the other changes. In response then the first will adapt, in an iterative process of constant change and constant stability. There is continuity because each generation is always taught by the preceding generation of scientists and also because the research questions in which a community is interested are predicated on the current concepts they hold, even when the results of such research might indicate that changes are needed to better adapt the concepts in response to other concepts or other facts about nature. Toulmin’s differentiation between content-knowledge and institutional aspects corresponds to Hjørland & Hartel’s (2003) ontological versus social dimension of a domain.

To describe the history of a field is a creative and constructive process. Consider the field of Knowledge Organization. On the one hand we have a field which is in some ways “given”. We have, for example, this ISKO conference. In other ways, however, each of us construes the field. Some among us work from the perspective of knowledge management, some from the perspective of facet-analysis, some from the perspective of bibliometrics and so on. Each course on KO, each textbook, each history of the field and each classification scheme describes and classifies the field according to the perspective of the author or designer. Feinberg is certainly right: Knowledge organization should be seen as a process of active construction rather than as passive discovery. Anybody concerned with the field of knowledge organization should describe and defend the criteria by which they construe this domain. Researchers in KO are not working on a different project compared to the people doing indexing, classification and organization of the literature of
the domain. Inside the domain, however, many different perspectives compete with each other. Each researcher as well as classificationist will always be biased and subjective, e.g. towards a bibliometric or facet-analytic understanding. This leads us to the question of the role of subject specialists in KO.

The Role of experts in Knowledge Organization

Subject knowledge is required in order to do a qualified job in KO. People who are not familiar with discourses in the domain to be organized are not equally qualified to construe the field. Above we considered Knowledge Organization as an example of a domain. Any researcher in this field has a perspective, which may be more or less in agreement with the perspective of other researchers. As indicated above many different perspectives seem to compete today in this domain. These competing perspectives may be differently distributed among, for example, researchers and indexers. However, both groups try to contribute to the fruitful development of the field based on their knowledge and job tasks. To make choices among different perspectives presupposes knowledge about these perspectives. This point seems to be in conflict with what Feinberg finds:

This identification of experts being closer to “truth” than laypeople seems also to imply that, even in cases of debate among experts, the dominant or majority view is typically the one that “follows the general rule” and thus is more “valid.” (Feinberg 2007b)

The view that knowledge organization should be based on the consensus or dominant view among experts was expressed by Henry Bliss (1929), it is not a view expressed by Hjørland anywhere. On the opposite, for example, Hjørland (1997, p. 172) quoted Søren Kierkegaard:

The truth is always in the minority; and the minority is always stronger than the majority, because the minority is ordinarily composed of those who do actually have an opinion, whereas the strength of the majority is illusory, composed of the crowd which has no opinion—and which therefore the next minute (when it becomes apparent that the minority was the stronger) embraces the opinion of the minority, that is, the opinion becomes rubbish by having statistics and the whole crowd on its side, while truth is again a new minority.

As far as truth is concerned, the same thing happens to this awkward monster, the majority, the public etc. as we say happens to the person traveling for his health: he always arrives one station too late. (The Journals of Søren Kierkegaard X(3) A 652, in 1850)

Feinberg’s attribution of the majority view among experts to the domain analytic theory of Hjørland is thus simply mistaken. Hjørland is therefore much closer to Feinberg’s own position than what appears from her papers: Hjørland also encourages information specialists to form their own opinion and to contribute activity in the design of knowledge organizing systems. The most important difference seems to be that Feinberg assumes that this can be done without participating in or relating to the discourses in the domain, without proper subject knowledge. Feinberg draws on the feminist scholar Donna Haraway to be discussed below. However Haraway as well as Hjørland do not put themselves outside scientific and scholarly research. It is important to realize that contributions to the production, use and organization of knowledge cannot be made from neutral positions, outside the struggle within domains. The organization of knowledge is part of the struggle within fields to contribute to the development of those fields. There has been and still is a strong ideological tendency within librarianship to disengage the field from discourses in the fields being organized. This (positivist) tendency may be the most important blocking for the advancement of LIS as a scholarly field.
The point of view of Domain Analysis is that subject knowledge is necessary, but not sufficient. Information specialists need other kinds of knowledge about a domain compared to what ordinary subject specialists typically do. This is further described in Hjørland (2002). Ørom (2003) is a contribution to a domain analysis of arts studies. Librarians and information specialists who have read and understood this paper should clearly be better qualified to organize and retrieve knowledge in this domain compared to people which do not possess this knowledge.

The “family” of pragmatic philosophies

Feinberg bases her view on the feminist epistemology of Donna Haraway (1988), but remains critical to Hjørland’s “realism”. This is strange since the last is developed on the same kinds of thinking as that of Haraway (and Sandra Harding, among others). These feminist epistemologists are “realists” in the same sense as Hjørland: “a no-nonsense commitment to faithful accounts of a “real” world” (Haraway 1998, p. 579). According to Code (1998) the main contribution of feminism to epistemology has been to move the question ‘Whose knowledge are we talking about?’ to a central place in epistemological inquiry. In this respect feminism is related to anthropological studies and critical epistemologies such as critical theory, all of which have demonstrated the limitations in traditional epistemologies as depending on the world-view of white, Western men from upper social classes. The implication of this view is that feminist epistemologists are producing conceptions of knowledge that are specifically contextualized and situated and of socially responsible epistemic agency and thus related to hermeneutic and pragmatic philosophies. Many feminists retain a realist commitment to empirical evidence, while denying that facts or experiences can be taken at face value. The term “standpoint epistemology” is used by some feminists to underline that an epistemological position cannot be neutral, and therefore simple honesty demands that researchers should explicate the goals and values that guide their investigations.

Harding attempts to reconstruct the veritable norm of ‘objectivity.’ She seeks to replace the ‘weak objectivity’ of the male-dominated scientific world — a pseudo-objectivity riddled with value-laden theories, political biases, domineering interests, commodified research, and blinkered ethical vision — with the ‘strong objectivity’ that comes only from a ‘robust reflexivity’ attained through a rigorous self-scrutiny of one’s socio-epistemological starting point. Harding notes that the very concept of ‘value-free knowledge’ is oxymoronic since the goal of being disinterested is an interest in itself, and it allows science to separate fact from value and abrogate responsibility for its actions. Since ‘value-free’ theories are impossible, Harding argues, one might as well acknowledge the values that inform one’s research, be it to make money or to improve the lives of the sick, and debate their comparative validity, and struggle to have science informed by progressive interests. (Best 1998)

Olson (2002) from a feminist position realized that “The names we give things colour the ways we perceive them. Those in a position to name hold the power to construct others’ perceptions and realities”. Recently Furner (2007) suggested “A Critical Race-Theoretic Perspective” in KO. This may be considered part of the same “family” of epistemologies as the pragmatic, critical and feminist perspectives. They are all very fruitful. However, there is a need to concentrate on what they have in common, what principles of Knowledge Organization they imply, and which other families of KO they are opposed to. In this way we could possibly avoid making unnecessary divides between us and instead cooperate in improving the knowledge base of our field.

Another important issue is to generalize the epistemological basis of KO. The perspectives presented in this section may seem relevant for a better representation of religions,
sexes, races, cultures and social classes in KO. But are they also relevant for the hard sciences? How should we organize, for example, nations, animals, diseases, chemicals and stars? What kind of epistemological questions are at play in such cases? We have much too little research on such principles. In all these cases there is a fundamental conflict between “positivist” and “pragmatic” views: Positivism may be understood as the view that knowledge and KO should be understood as a passive reflection of an external order. This has been termed the mirror metaphor of knowledge. The opposite view is that knowledge organization should be functional and thus reflecting given goals, purposes and values. But is it really possible to argue that scientific phenomena should be classified according to human interests rather than objective structures discovered by science? We will now turn to this question.

**Degrees of freedom in organizing knowledge**

In the Danish classification system “DK5” the Virgin Islands are classified as part of “Denmark” (46.5) even though they were sold to the USA in 1916! This can be seen as a “bias”, but it may be a well considered bias in that the users of the system will primarily be interested in these islands because of their former relations to Denmark (Danish books are written on these former Danish possession for a Danish audience). According to pragmatic theory, concepts are defined by pragmatic criteria by different kinds of interests. Nobody cared, for example, about how far into the sea a country has jurisdiction until interests such as fishery and potential extraction of resources made this relevant. Any application of concepts and any KO thus have to consider which definitions and semantic relations are purposeful in the given context. This point of view is contrary to the widespread ideal within LIS to standardize meanings.

Information services exist in order to support some kind of goals and values. Medical libraries have, at least implicitly, the goal of contributing to health. This is the same goal as medical science has. There should thus be no conflict between the way diseases are classified by medical libraries and by medical researchers. There is a danger, of course, that a given social group, say medical researchers or librarians do not serve the users’ goals the best possible way, but tend to serve their own interests. In that case, of course, libraries may choose to include “alternative” medical views. In doing so, however, they are in reality involved in an epistemological struggle about what is proper medical knowledge. In such a struggle information specialists may find allied views within the medical community, within other disciplines and within different kinds of movements, including patients’ organizations and feminist groups. Information scientists do not invent their own criteria from scratch. To a very large extent they relate to points of view already available in the literature. Our working hypothesis should be that different “paradigms” exist in every field of knowledge and that each paradigm serves different goals and interests, for which reason their identification and exploration have the highest priority for Information Science.

**Conclusion**

This paper has demonstrated that there is a basic correspondence between the views put forward by Feinberg and by Hjørland. Both views are based on epistemological arguments, and both views are connected to the same family of epistemological positions. What seems most urgent is to apply these epistemologies to specific domains. We now have a few adequate domain analytic works in the humanities and social sciences. We need much more investigation, especially the examining of these principles in the sciences.
References


