

Term Paper

Sam Burns

INF384C: Organizing and Providing Access to Information

May 5, 2004

Epistemological and critical studies

Word Count: 2655

Introduction

The purpose of this paper is to evaluate epistemological and case studies, one of Birger Hjørland's (2002) eleven approaches to domain analysis in information science. I begin by reviewing Birger Hjørland's overall contribution to the socio-cognitive or domain analytic movements within library and information science and then analyze in-depth his call for epistemological and case studies among the eleven different approaches for conducting domain analysis. Finally, I assess his findings and offer some questions for further inquiry.

Overview of Domain Analysis

Before diving into Birger Hjørland's approaches to domain analysis, I feel that it is important to understand the theoretical underpinnings of his point of view and to point out just how he came to have the idea in the first place that new approaches were necessary in this field. Regardless of whether or not you accept or reject his position, I think that it is still worthwhile to understand how exactly Hjørland's views fit in with the broader theoretical movements within the library and information sciences. After all, much of his thesis is based on either an addition, revision or rejection (depending on your point of view) of modern thinking in the library and information science field (Hjørland, 2002).

To put it plainly, Birger Hjørland (2002) sees a "problem" in the direction of information science (pg. 257). Unsettled by the cognitive sciences movement, specifically the notions individualism and rationalism of the cognitive views within the information sciences field, Hjørland drew on sociology, hermeneutics, activity theory and epistemology to advance his socio-cognitive or domain-analytic perspective. His work is

representative of a sea change in the library and information science field. In his view, the “cognitivist perspective” in library and information science has fallen short in providing a theoretical framework to explain how individuals interact with information (pg. 257). His chief arguments are that there is too little to show from the empirical studies of individual behavior based primarily on behaviorist and cognitive psychology and there is still no sufficient theoretical grounding or basis used in their research that helps to inform our field. From Hjørland’s perspective, a well-grounded theoretical framework is the hallmark of a mature discipline.

Perhaps the most important distinction that Hjørland (2002) makes in advancing his case for a new approach to library and information science research is that in his view the research produced thus far has focused far too much on the perceived cognitive workings of individuals as opposed to recognizing the influence of the environmental factors in which they exist and the “discourse communities” in which they inform themselves (pg. 258). He writes that:

The dominant traditions in both information science and in behavioural and cognitive sciences have neglected culturally mediating factors in people’s relationship with information and just tried to study generalized persons’ relation to something termed ‘information’. In these traditions people are expected to react to something in a specific, mechanical way without considering the culturally determined meanings and without considering the different goals and values of the meanings and of the documents. (pg. 426)

Hjørland chooses instead to study and analyze these discourse communities for the purpose of seeing “individual knowledge in a historical, cultural, and social

perspective” (pg. 267). His claim is that the “tools, concepts, meaning, information structures, information needs, and relevance criteria are shaped in discourse communities” (pg. 258). When viewed from this perspective, Hjørland believes it will be possible to create an “interdisciplinary foundation for general theories about knowledge organization, information retrieval, and other basic issues in information science” (pg. 268).

Epistemological and critical studies

Epistemological and critical studies are one of eleven approaches to domain analysis outlined by Hjørland. Epistemological studies are about discovering the “assumptions, background knowledge, and theories” that underlie a given paradigm in which an individual is doing something (pg. 438). They examine the explicit or implicit assumptions behind research traditions. Such assumptions are often linked to ontological assumptions concerning the object under study. They represent and are embodied in the analysis of the approaches or paradigms in research fields. Hjørland (2002) believes two important things about epistemologies and critical studies. The first is that he thinks every field of knowledge has “different paradigms, schools or approaches” that can be identified (pg. 439). The second is that he believes that epistemological studies will enable us to create a theoretical framework to explain information behaviors, thus giving information scientists a unique field of study to focus on. This new field, in Hjørland’s view, will be set apart from the requirements of becoming a specialist in a given field and would be in its own right a mature and important discipline.

Because each approach is in some way about setting out to discover the unique and special information use traits and behaviors related to different paradigms, for

Hjørland (2002) epistemological and critical studies are the most basic approach and fundamental to all of the other approaches. Epistemologies by definition are “theories or approaches to knowledge” (pg. 439). They are the inescapable self-evident realities of everyone’s existence in some form or fashion. Therefore, theories of epistemology are the most fundamental theories of relevance in Hjørland’s view, and any theoretical question in information science is in the end based on epistemological assumptions. By studying epistemologies in various knowledge domains, Hjørland believes we can interpret information use patterns among those various domains.

Where the information scientist is concerned, Hjørland (2002) sees epistemologies manifested in such things as the form of a communication structure developed by a group, their understanding of their particular information needs, and their relevance criteria. All of these elements are tied together by their common “theoretical frame” or epistemology. Because this group positioning is so important in how the group’s members understand and contemplate their world, Hjørland argues that these beliefs lie at the very nature of how they will use and value information sources. Hjørland views these studies not just as important for consideration, but indeed as an essential element to any kind of scholarly research embarked upon by those in the information sciences. Moreover, this is why an information scientist’s toolkit would be incomplete if they did not consider such a fundamental part of someone’s outlook or world view. Hjørland succinctly makes the point about the preeminence of epistemological and critical studies when he writes, “It is my claim that this approach to domain analysis is the most basic approach and that all other approaches tend to become superficial if this perspective is not included” (pg. 439).

Evaluating the Approach

Hjørland offers us several examples of authors who have contributed epistemological positions or studies, terms he uses seemingly interchangeably, across a wide-range of disciplines. One such example he uses that has particular relevance to the library and information science field is the work of Ronald E. Day (2001) entitled *The Modern Invention of Information*. In this work, Day sets out to analyze the “social production and history of the term ‘information’” (pg. 1). This work follows the traditions of critical theory, which Day describes as “the deployment of concepts in critical and interruptive relation to the conceptual foundations of commonly accepted practices” (pg. 116). Like Hjørland, his purpose in doing so is to get at what he terms the “foundational questions” and move beyond the other forms of practical research (pg. 116).

Day’s methods for conducting his epistemological study of the term “information” fit with Hjørland’s suggestion that “epistemological studies of knowledge domains are often combined with historical studies” (pg. 439). Indeed, Day’s approach was to examine “texts of three information ages” to try and show how language was used to “construct a social, utopian value for information and helped to raise information and its connotations of factuality and quantitative measure to a privileged, even totalitarian, form of knowledge and discourse” (pg. 2).

So what then can we gather from the work of Day to help inform a practical application of Hjørland’s epistemological and critical studies approach to domain analysis? First off, I believe Hjørland would classify Day’s work as belonging to his third category of epistemological positions, the class related to historicism, hermeneutics

and phenomenology. As for his methods, Day acknowledges that his work is primarily a “rhetorical analysis” focusing “largely on the textual means of information’s historical development”. Although he admits that there are other “social and professional” means through which to “restore a context of literary, social, and historical production to ‘information’”, he opts instead to focus primarily on textual sources (pg. 2-3). He defends this technique by espousing the unique properties of text to “account for the movement of concepts across institutionally defined social networks” (pg. 2)

Day espouses similar views to Hjørland with regard to the prevalence of research that does not take into account more social and environmental factors. Taking a somewhat harsher tone, Day describes the current state of research in the information sciences in the following way.

The unwillingness of research on information to actually attempt to situate a culture of information and communication in terms of interested and powerful social and historical forces is evident by even brief glance in journals in information or information studies or in policy papers...research in information simply shies away from critical engagement, as well as from foundational, qualitative, or materialistic analyses. (pg. 116)

Another example Hjørland offers as an epistemological position or study is Kurt Danziger’s (1990) work entitled, *Constructing the Subject, Historical origins of psychology research*. As the title suggests, this is again a work that Hjørland would probably classify as belonging to the historicism, hermeneutics and phenomenological category of epistemological positions. This example comes from the field of psychology and much like Hjørland’s own *raison d’être* for his domain analysis work, this work too is

largely about advocating a recognition “of the socially constructed” framework of, in this case, psychological knowledge (pg. 2).

Specifically as a reaction against the tendency to represent the historical development of psychology as “a succession of individual contributors who accumulated ‘findings’ on the basis of progressively refined hypotheses and increasingly sophisticated instrumentation”, Danziger lays out an alternative “fundamentally social” historical framework for the field of psychology (pg. 1-2). Like Day, Danziger reexamines the history of the field beginning with the birth of modern psychology in 1879 through an epistemologically focused lens. Unlike Day, Danziger’s approach is not as entirely focused on textual evidence and is instead more of a historical survey of the field. It reads more like a social history of the field and is expressly intended to be guided by the insights to be found within the “contexts of discovery” (pg. 2).

Danziger is perhaps most helpful in informing us to a greater extent of some of the underpinnings of epistemological theory as seen by Hjørland. This work pre-dates much of Hjørland’s domain analysis writings and one can find some clear parallels between the two, particularly in their focus on reexamining a field a field of study in this new epistemological paradigm. For example, Danziger, like Hjørland, commingles the rationalist traditions with his concern of his perceived lack of a context aware discipline.

As long as we limit our conception of psychological research practice to its purely rational aspects, we will be inclined to think of the history of that practice solely in terms of technical progress...However if we refuse to perform this rationalist reduction, we will find that in the history of psychological research practice the

most significant changes were changes in the ends rather than improvements in the means. (pg. 5)

Another similarity is the way in which Danziger employs the phrase “domain of constructions” to convey the concept of the social constructions which serve to create and define activity paradigms (pg. 2). His use of this phrase is very similar to the way that Hjørland describes and defines discourse communities. In the following passage Danziger delineates some examples of the “domain of constructions”.

The sentences in its textbooks, the tables and figures in its research reports, the patterned activity in its laboratories, these are first of all products of human construction...if the world of scientific psychology is a constructed world, then the key to understanding its historical development would seem to lie in those constructive activities that produces it. (pg. 2)

Finally, just as Hjørland helps to inform us of what some of the specific manifestations of an epistemological framework are from a library and information science perspective, so too does Danziger regarding psychological research. In writing about the social dimensions of research activity he specifies certain areas particularly relevant to the epistemological view writing that:

the pattern of social relations among investigators and their subject, the norms of appropriate practice in the relevant research community, the kinds of knowledge interests that prevail at different times and places, and the relations of the research community with the broader social context that sustains it. (pg. 5)

Like Hjørland, Danziger specifies these specific examples of epistemological frameworks and asserts that we can derive meaning from understanding how these things changed due

to various historical, social and environmental factors. I think these are particularly helpful avenues of inquiry for anyone who attempts to engage in any kind of epistemological or critical study.

Conclusions

I think there can be little doubt about the fact that Birger Hjørland presents a convincing argument for Domain Analysis within the information sciences. I think it is also clear that epistemological and critical studies are indeed vital to the other Domain Analysis approaches. Further, I think it is clearly shown by the immense body of research both relating to this approach and the ten others, that his ideas are supported by a body of research that is widely influential and representative of a particular point of view that would be a shame to keep out of any sort of intellectually honest inquiry.

However, even if we accept the ideas of Domain Analysis and in particular, the epistemological and critical approaches, we are still left with numerous questions about how such approaches could actually be implemented for research purposes. For example, most problematic for me is the concept of where exactly a domain boundary begins and ends. For any entity or group, one could conceivably assert any beginning and end point defining a group or community that could be said to be operating as a specific discourse community. Before one could study a particular discourse community, it seems necessary to actually define what we mean by such a community. It seems possible that one could identify an epistemology or discourse community at an individual level or at any broader level beyond that. There seem to exist an almost limitless number of stratifications when assessing the bounds of a particular domain.

I think recognizing the significance of social and environmental factors on a group is one thing, but to evaluate such a relationship and explain its impacts and meanings on the group discourse seems quite another. Hjørland stops short of providing us with a set of tools or even a methodology for conducting such an investigation or inquiry. His work is nonetheless important for its call to arms regarding a new approach, but I think it remains to be seen whether or not these ideas can be put to use in meaningful ways that will enhance our field and deliver on his promises.

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