

Interdisciplinarity and Classification: A Response to Hjørland

Let me first thank Birger Hjørland (2008) for his careful and constructive response to my paper (Szostak 2008). We agree that it is important to clarify the differences in our approaches to classification. I am particularly pleased to note that he appreciates the potential value of the sort of interdisciplinary system of classification that I have advocated. We could indeed then observe which sort of classification scholars found most useful.

Hjørland does not appreciate why the literature on interdisciplinarity should inform information science in much the same way that the literature of science studies does. Yet interdisciplinarians must believe that different scholarly conversations are not incommensurate but rather can be integrated. This must imply some sort of common basis for understanding; this in turn can potentially support a non-discipline-based system of document classification (see the Leon manifesto, <http://www.iskoi.org/ilc/leon.htm>).

Hjørland doubts that a non-disciplinary classification can be pursued pragmatically. However the key to the pragmatic approach is an appreciation that classifications should be designed with user needs in mind. And interdisciplinary scholarship is crippled by disciplinary classifications. Can such a classification be pursued pragmatically? Hjørland is correct that recent scholarship has shown that we cannot define (all) phenomena in a completely objective fashion. But this does not mean that we need embrace complete subjectivity either. This point Hjørland appreciates – when he concurs that inductive and deductive approaches can usefully be combined, and when he recognizes that chemical elements lend themselves to a fairly objective classification. But his argument that we cannot be both interdisciplinary and pragmatic in classification rests on a false dichotomy between objective and subjective definitions. Interdisciplinarians believe that we can achieve enough commonality of definition for cross-disciplinary understanding. A pragmatic approach need not and should not leap to the conclusion that such commonalities in definition are impossible. A pragmatic approach should instead investigate the degree of divergence in definition, and also whether there are strategies for classification that would cope with such disagreements as do exist. As we shall see, within the classification I propose the sorts of differences across academic communities that Hjørland stresses can be captured through coding both relationships between phenomena and theories and methods applied.

It is then an empirical question as to whether one can combine pragmatism and interdisciplinarity. In practice, most natural phenomena can be defined in terms of their natural essence, and most human phenomena in terms of their primary function. Of course, scholarly opinion on essence or function may evolve through time, as in the case of Pluto cited by Hjørland, but such changes are rare – certainly far rarer than the changes in favored theory that would force the complete overhaul of the (primarily) inductively grounded classifications recommended by Hjørland.

Hjørland and I agree on a potentially controversial point: that scholarly concepts should refer to particular phenomena, theories, or methods, or components thereof. Unlike Hjørland, I believe that we can define most if not all phenomena in a largely theory-independent fashion. Theories differ more in terms of how they think a phenomenon behaves than what it is. This is again an empirical question. But Hjørland's own examples are suggestive. Woodworkers, orchardists, and artists do not and need not

disagree about the natural essence of a cherry tree in order to identify quite different arguments about its influence on human life. Pharmacologists can and do agree with chemists on the structural essence of chemicals, but focus on how these affect various biological functions.

Hjørland's analysis supports several key elements of the proposed interdisciplinary classification. If works were coded in terms of causal link (or other relationships between phenomena), then the concerns of chemists with particular chemical reactions would be readily distinguished from the concerns of pharmacologists; yet one could easily access related work by the other. Nevertheless, scholars might also wish to search by type of theory and method applied in a particular work (see especially his points #8 and 9). Distinctions across approaches to mental disorders can also potentially be captured through classifying works with respect to causal links and/or theory types. I would have appreciated some clarification from Hjørland on how scholars will be able to compare the results of works applying different theories and/or methods if it is thought (incorrectly) that the entire classification system needs to be changed when guiding theories are altered. Scholarly understanding likely progresses best (if it is thought that such a thing is possible) when theories are tested against each other (ideally with recourse to multiple methods); a classification system should facilitate rather than obscure this process.

As noted above, I am glad to see that Hjørland recognizes the value of using both induction and deduction in classification. It is a simple point but once the door is opened to some sort of deductive structure then it becomes much less likely that inductively-ascertained definitions of phenomena will differ so much that a universal classification is infeasible.

Though Hjørland argues throughout his paper that classifications should change as scholarship changes, he supports the present practice of disciplinary-based classification on the grounds that this has seemed to work well in the past. As interdisciplinary scholarship increases in relative importance, this argument fails. Again it is noteworthy that by coding works in terms of relationships between phenomena (and theories and methods applied), the search needs of both disciplinary and interdisciplinary scholars would be better served by the universal system of classification I recommended than by present systems of classification that fail to distinguish works in these ways. And yes if we wish as societies to really cope with complex social problems like inner city poverty we need to be able to look at those problems with a 'child-like' appreciation of their complexity rather than address them through a series of incompatible discipline-based reforms.

Hjørland and I have now carefully identified competing visions of the classificatory enterprise. I have suggested more than once above that our differences can only be fully evaluated empirically. Both the feasibility and utility of these competing visions can only be evaluated in use. The Integrative Level Classification at www.iskoi/ilc pursues the sort of classification I have urged; that enterprise suggests that such a project is both feasible and potentially useful.