

From the Social to the Individual and Back: The Cognitive Materialist Interpretation of Boundary Objects and Its Implications for Knowledge Organization

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A perennial question in the field of knowledge organization (KO) is how to conceptualize the creation of classifications and indexing systems so as to take into account the different constituencies involved in their design, implementation, and use. One conceptualization that has proven particularly robust is that of classifications as “boundary objects” (e.g., Albrechtsen & Jacob 1998). Formulated by sociologist of science Susan Leigh Star and developed in a number of studies (e.g., Star & Griesemer 1989; Bowker & Star 1999), the theoretical construct of boundary objects models how a given object, be it abstract or physical, is used by members of different communities of interest to coordinate action. In this model, each community of interest attaches its own meaning to the object in question: what makes the object a boundary object is that its properties are stable enough to ensure some overlap among different communities’ meanings, yet plastic enough to accommodate the significant differences between them. Boundary objects function as a site for translating meanings and negotiating differences among communities of interest: they allow these communities to align their activities in light of their respective interests and so make collaborative action possible.

A salient feature of the boundary objects model is its focus on social collectivities as units of analysis: the boundary object is conceptualized as mediating between different communities. This is a strength of the model, for it makes it complementary to other methodologically collectivist approaches current in KO such as domain analysis. However, the collectivist focus of the boundary objects model has certain limitations. The most serious of these is its tendency to treat communities of interest as a “black box”, so eliding the possibility that different members of a single community might vary in their interpretation of a boundary object. Such a move permits a researcher to study how the meaning of a boundary object is constituted and negotiated *across* different communities of interest; however, it offers no resources for conceptualizing how this meaning is constituted and negotiated *within* a single community of interest.

The goal of this paper is to extend the boundary objects model by unlocking the black box of social collectivity. We propose to do this in light of a new analytic framework: Cognitive Materialism. Cognitive Materialism recognizes the existence of social collectivities and domains; however, it does not insist on reifying them into ultimate units of analysis but provides a mechanism for analyzing them into yet smaller units of analysis, down to the level of the individuals who compose a single community of interest. This approach, which seeks to bridge the gap between methodological collectivism and individualism, can provide KO researchers with a powerful conceptual tool for studying, at a high level of analytic granularity, how the members of a single community of interest come to constitute and negotiate the meaning of what will eventually become a boundary object. In this paper, we demonstrate the analytic utility of the Cognitive Materialist approach by conducting a case study of the KO term “facet”: we show that this semantically unstable term has served as a boundary object that mediates between individual theorists within the KO community as well as mediating between the KO community and other communities of interest (cf. La Barre 2004). We argue that considerable “categorical work” (Bowker & Star 1999, 310) must be done to stabilize the meaning of a boundary object within single communities of interest as well as to mediate meanings between different communities of interest. Only in this way can boundary objects fully transcend both the cognitive boundaries between individuals and the socio-epistemological boundaries between communities of interest.

References

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