Keynote Address Extended Abstract:

The Dynamism and Stability of Classification in Information Ecologies--Problems and Possibilities

Information ecologies are socio-technical environments or networks that involve a diversity of actors, activities, technologies and information. Following Nardi and O'Day, information ecologies are self-organizing systems that evolve through the relations, roles and practices of their participating units. Information ecologies are localised in the sense that they constitute a particular context for the activities that they support. Yet, their units can also be distributed on a more global scale. Examples of information ecologies that are local and simultaneously distributed comprise electronic libraries and computer-supported work environments that support co-operation and knowledge sharing for particular communities or domains. Within information ecologies, classification schemes function as information infrastructures that may either facilitate or constrain the activities of communication, co-operation and production.

The Keynote Address proposes that in order to achieve the highest possible facilitation of the activities and evolution of information ecologies, classification schemes must be ecological. This implies that ecological classification schemes are designed to be used within a particular context or environment. The design of ecological classification schemes involves empirical analysis of the stable or invariant structures of a particular domain and of the information needs of the actors in the domain. Such schemes are modest in the sense that they do not strive for universality across domains. Neither do they strive to exhaust the totality of concepts and structures of their domains. This is due to the dynamic and unpredictable evolution of concepts within a domain, the changes in the division of labor and work practices and the changing socio-political constraints from external environments. The aim of ecological classification schemes is to make visible the invariant structures or recurrent themes of actors' practices, organization and information needs. The articulation and identification of recurrent themes involve articulation of background knowledge, or 'tacit knowledge', in the domains. Further, the themes are identified from a critical assessment of more explicit knowledge such as already existing standard schemes, or existing paradigms and norms for communication, co-operation and knowledge sharing within the domain. In order to illustrate the approach to the design of ecological schemes, two example case studies are introduced and discussed. The background paper for this discussion is "Ecological Work Based Classification Schemes", published in the present ISKO6 Proceedings volume.

In order to frame the proposal for ecological scheme design within recent theory of knowledge and classification, the Keynote Address mobilises a number of important contributions from social theory, philosophy of science and information science. Contributions include Star's social theory of classifications as infrastructures and boundary objects, Law's socio-semiotic theory of classifications as entanglements of different perspectives or modes of ordering, and Haraway's philosophy of situated knowledge. Implications are drawn for the role of classification systems as facilitators versus barriers to the activities and evolution of information ecologies. Further, the requirements and ideas for
future classification research, proposed by Svenonius in her Keynote Address to the 5th International Study Conference on Classification Research in Toronto, 1991, are mobilised together with recent contributions by, or instance, Beghtol, Kwasnik and Jacob. The presentation concludes with some philosophical and practical implications for future debates within Information Science on the dynamic socio-technical role and agency of classification schemes in information ecologies.

References


