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Learning systems and communities of practice for environmental decision making

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Learning systems and communities of practice for environmental decision making

Thesis submitted for the degree of Doctor of Philosophy

in systems, learning and environmental decision making.

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Abstract

This thesis explores learning for environmental decision making (EDM), from the viewpoints of what and who provide necessary support, and how and why practitioners engage in learning for EDM.

Learning systems and *communities of practice (CoPs)* are the two main concepts used to frame and interpret the research. The empirical focus is on the experiences of practitioners involved in a UK-based Masters level course and a European research project, from a 'learning for EDM' perspective. The study draws on a range of learning and systems theories and is informed by analysis of discourses of environmental and social learning. Conducting two main inquiries – one course-based, the other project-based – proved to be an effective way of researching in the multi-organisational contexts that are characteristic of EDM.

Commonalities are identified among different individuals' professional and personal learning for EDM and means of support. Leverage points are recognised where future support might usefully be deployed and design for learning focused. Three models of learning systems are developed to help explore dynamic processes of learning. These are (i) a model of interdependent levels of change (ii) an extension of Vickers' appreciative systems model and (iii) trajectory diagrams. A theoretical framework for systemic analysis of learning for EDM is also proposed, including a generic form.

The study reveals the importance of the direct study of learners' perspectives, the incremental nature of social learning over time and that engagement with environmental issues is mediated by transformations that are socially negotiated. Both learning systems and CoPs perspectives highlight the interconnections and relationships of importance to learning for EDM. They also provide a means for considering practices and practitioners as a duality. The thesis concludes that both learning systems and CoPs offer 'know-how' that is required to support learning for EDM in future.