

Using social networks analysis (SNA) to understand transformations in SES

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Part of panel: How can a dynamic social network perspective contribute to improved understanding of transformations in SES?

How can systems, which have become locked in an undesirable state (with apparent negative outcomes for ecosystems and humans who depend on them), be transformed to embark upon more sustainable trajectories? Work on transformations in social-ecological systems (SES) has begun to explore these issues. This body of work has been dominated by a systems perspective, with analyses of how agents and organizations have both utilized and tried to affect system dynamics to change unsustainable trajectories. The primary focus in much of this work has been on the role of change agents, often referred to as institutional entrepreneurs, and the strategies they employ to affect change in a system. Social networks and leadership issues have been identified as key components of the change process but a detailed exploration of how networks change and develop, and the role of change agents in this process, remains unexplored. In this presentation we will show how this work on transformations in social-ecological systems can be enhanced by incorporating a dynamic social network perspective from the field of social network analysis. The change agents described in transformation literature often work to affect the broader values and perceptions of people in a system. The underlying process at work in such cases is social influence. The field of social network analysis has developed sophisticated models and tools to study how ideas and behaviors spread and how networks change over time. We will illustrate how such methods can be combined with ideas of transformations of SES by using some conceptual examples. This presentation serves as a conceptual and theoretical link to merge the two bodies of literature explored in this panel.