Discussion on Article 3:
Kelly’s Contribution to Information Systems

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This article considers the use of repertory grids and a particular form of cognitive mapping for exploring the dynamic complexities of organizational and information systems, and as such provides further evidence for the adoption of these techniques when considering the impact of information technology.

Through using both of these techniques (which have a common basis in George Kelly’s work on personal construct theory), the researchers have demonstrated how beneficial a transitional object can be when reviewing the introduction and ongoing usage and development of any system (information systems just being one particular type). The power of the dialectic as a means of surfacing previously unconsciously held knowledge and concerns in a structured and therefore more accessible format not only assists in helping participants have more knowledge of their views (reflecting what Karl Weick noted when he stated, “how do I know what I think until I hear what I say”), but also provides a negotiative device for different constituencies (i.e., developers, users, managers) to share meaning, develop a common language, and work toward agreeing on a way forward that is mutually acceptable.

One of the really interesting aspects of the article is in its application of repertory grid analysis (RGA), using it as a means of facilitating the conversation and learning rather than using the traditionally analytic format. The talkback process provides a powerful way of engaging the participant in the data (and therefore to some extent, the analysis) and thus not only potentially increases the validity of the results (through reduction in bias), but also enhances the understanding and learning process. Following this, the use of three talkbacks — representing different points of time — adds to the richness through the ability to review stakeholder positions and responses dynamically. However, more insights into how the participants viewed this process and what new insights emerged would have added to the article’s contribution.

The application of mapping, while being more traditional in its use (many of the benefits posited here apply to the many other applications of mapping; see Ackermann & Eden, 2004, for a view on where mapping has been used), has only relatively recently been applied in the area of information systems and is demonstrating that it is an apposite research method (for an example, see the recent book by
Narayanan & Armstrong, 2005). The role of moving up and down the chains of argument to elicit values and goals along with issues, assertions, and concerns helps tease out the subconscious knowledge and views enabling them to be explored and managed.

One concern that does emerge from the case-study application, however, is the authors’ apparent deviation from the coding formalisms (the authors note that they are adopting Eden’s form of cognitive mapping). For example, the nodes are not action oriented and some of the links do not seem to be obviously causal. Moreover, the implications of producing the maps from a transcript rather than producing them live are not considered. Typically, Eden and his colleagues create the map during the interview, capitalising upon the interviewees’ interest in the unusual data-collection process to provide a useful opportunity to validate the resultant material and familiarise them with the mapping technique. In addition, statements that are not linked up can be further explored, areas can be elaborated, and other omissions can be rectified. This deviation, along with the use of “stripping” the maps so that they focus only on the commonalities may weaken the article’s contribution.

Finally, the notion of the superconstruct both fascinates and puzzles. Although the authors discuss this concept in relation to RGA, they do not provide enough detail for the reader to be able to capture exactly what is meant. Unfortunately, the concept is not addressed after the cognitive-mapping consideration. Some more explanation of a superconstruct through examples, perhaps, would help further the article’s message.

Overall, the article is well written, provides a clear argument for using both repertory grids and cognitive mapping as research tools when examining the impact of information technology on organizations, and reveals some interesting new developments.

REFERENCES


Fran Ackermann is professor of management science at Strathclyde University, Scotland. Her research interests focus upon the role that group decision support systems and cause mapping (a qualitative modelling technique) can play in supporting the development and implementation of strategy and in risk assessment and forensic modelling. She is also keenly interested in how decisions are made and managers operate within a complex and changing business world. She has wide experience with both public and private organizations from a consultancy/action research basis. She has written widely in the areas of strategy, operational research and information systems, and is the author of three books. She is on the editorial board of three journals and has been invited to speak at MIT, Georgia State University, Curtin University, Perth, Western Australia, Tilburg University, The Netherlands as well as being an affiliate professor at Bordeaux Business School.