1993

TUTORIAL 5 COGNITIVE MAPPING: HOW INFORMATION SYSTEMS CAN HELP WITH MESSY PROBLEMS AND QUALITATIVE DATA

Fran Ackermann
University of Strathclyde

TUTORIAL 5

COGNITIVE MAPPING: HOW INFORMATION SYSTEMS CAN HELP WITH MESSY PROBLEMS AND QUALITATIVE DATA

Fran Ackermann
University of Strathclyde

Cognitive Mapping is a technique (with associated software support-COPE) developed to structure and analyze messy, qualitative data, which is frequently experienced when working with the complex problems involved in activities such as strategy development and implementation. It constitutes an important part of the Strategic Options Development Analysis (SODA) methodology which has been used with a large number of decision making groups, at all levels, from within the public and private sector, as a Group Decision Support Systems (GDSS).

The tutorial will begin with an introduction of the SODA methodology and Cognitive Mapping technique by providing some of the theoretical background and rationale to its development. During this stage of the tutorial, attention will be focused on the technique of cognitive mapping, exploring not only how maps are constructed but also how they are analyzed. To achieve this participants will be encouraged to try out a simple example of the technique for themselves in order to get an initial feel for cognitive mapping.

The introduction will be followed by an exploration of some of the research issues that are currently being addressed. These research issues include the role the computer based cognitive maps and methodology can have in helping a group begin to explore each other's ideas, and elaborate their own thinking in order to develop a common group understanding and therefore be able begin to resolve problems with added commitment and consensus.

The group generated models which result from such meetings often provide the basis for a Decision Support System (DSS) where a senior manager can monitor the progress of strategic actions, identify bottlenecks, and evaluate organization's performance. This link between GDSSs and DSSs and back to GDSS will be explored to demonstrate the systemic and dynamic nature of decision making.

Finally, the tutorial will explore the use of cognitive mapping in other IS research applications that involve messy problems and qualitative data.

Throughout the tutorial, examples from interventions using the methodology, technique, and software with organizations will be used to illustrate points.