Chapter VII

Analysis by Long Walk: Some Approaches to the Synthesis of Multiple Sources of Evidence

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INTRODUCTION

Through this chapter I make two contributions. First, I provide both conceptual guidance and practical advice for information systems (IS) scholars who are involved in multi-method research, with a particular focus on conducting multi-method analysis. Second, and as a means to achieve the first contribution, I detail some of the principal components of multi-method research. Multi-method research is based on the premise that analysis of separate and dissimilar data sets drawn on the same phenomena will provide a richer picture of the events and/or issues than will any single method. While valued by many IS scholars, multi-method-based research to study the roles of information and communication technologies (ICT) in social organization is under-explored as a set of coherent techniques. In response I put forth a set of observations that arise from my own multi-method research experi-

ences (see Guinan, Cooprider and Sawyer, 1997; Sawyer, Farber and Spillers, 1997; Sawyer, 2000b; Crowston, Sawyer and Wigand, 2001).

For this chapter multi-method means a combination of data-collection approaches, such as survey collection and field work, drawn on the same phenomena (Sawyer, 2000b; Brewer and Hunter, 1989). By analysis I mean the process of discerning findings from data. As context for this discussion I draw on my ongoing research into organizational computing infrastructure changes and enterprise resource package (ERP) installations (see Sawyer, forthcoming, 2000a, 2000b; Sawyer and Gibbons, 2000; Sawyer and Southwick, 1996, 1997). My discussion on multi-method research reflects the idiosyncratic blend of concepts, personal preferences and contextual circumstances through which an interpretive researcher sees the world. However, many of the issues I raise may be equally viable for IS scholars with different epistemologies than mine.

A multi-method approach to research on the uses of ICTs involves several data-collection techniques organized to provide multiple but dissimilar data sets regarding the same phenomena. By dissimilar I mean that they include different forms of data. For example, using participant observation and laboratory experiments is one way to conduct multi-method research (see Sproull and Kiesler, 1991). The observational data is typically textual and open ended, relatively unstructured and context dependent. Data derived from the experiments is typically de-contextualized, numerical and highly structured.

Multi-method research is typically done by drawing on data-collection methods that accommodate each other's limitations (Jick, 1979; Gable, 1994; Gallivan, 1997). For example, Sproull and Kiesler (1991) used the observational data to provide insight into the context and the experimental data to provide insight into observed behaviors. Further, both the conceptual bases and data collection techniques help to shape the phenomena of interest. So, there are many ways to conduct multi-method research (Brewer and Hunter, 1989). Here I focus on "multi-method fieldwork": blending fieldwork with surveys, as this is what I most often do in my research. My conceptual bases are rooted in social theory (see Sica, 1998), and this combination of methods and theory leads me towards different questions than would someone who draws on psychology and combines fieldwork with experiments (see Sproull and Kiesler, 1991).

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