Qualitative Methods in IS Research

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INTRODUCTION

As information technologies have evolved, so too has our understanding of the information systems that employ them. A significant part of this evolving understanding is the role of the human contexts within which information systems are situated. This, in turn, has led to the need for appropriate methods of studying information systems in their context of use. Just as decisions about information systems need to be considered within their contexts of use, so also do choices about the appropriate research methodologies to employ for studying them. Increasingly, qualitative methods are chosen as an appropriate method for studying contextual aspects of information systems development, use and impact.

Qualitative research refers to research methods that engage in the interpretation of words and images rather than the calculation of numbers. These methods include: ethnography, case study, action research, interviews, and text analysis (i.e., conversation analysis, discourse analysis, and hermeneutics). Qualitative research can be theory-driven in much the same way as quantitative analysis. However, it can also employ grounded theory techniques in order to develop theory (Glaser & Strauss, 1967).

Following some early uses of qualitative methods in the 1980s (e.g., Benbasat et al., 1987; Kaplan & Duchon, 1988; Lee, 1989; Mumford et al., 1985), there has been a significant growth in the use of qualitative methods for information systems research since the 1990s (e.g., Journal of Information Technology, 1998; Lee et al., 1997; MIS Quarterly, 1999, 2000; Nissen et al., 1991; Trauth, 2001).

Accompanying the increased use of qualitative methods for IS research has been a discussion of various methodological issues. Among the key aspects of this dialogue are discussions about the suitability of qualitative methods for various types of research and issues arising from a particular type of qualitative methods: interpretive methods. This article presents a reflection on some these discussions in the form of a consideration of five factors that can influence the choice of qualitative (particularly interpretive) methods for information systems research.

FACTORS INFLUENCING THE DECISION

The Research Problem

The research problem, what one wants to learn, should determine how one goes about learning it. Heaton (1998) chose observation, interview and document analysis to examine the social construction of computer-supported cooperative work in two different cultures in order to learn how the meaning of “culture” was reflected in the design of systems. Trauth (2000) used ethnographic methods to explore the influence of socio-cultural factors on the development of a nation’s information economy. Bentley et al.’s (1992) ethnographic study of the work practices of air traffic controllers informed their design of an interface to an air traffic control database. Walsham and Sahay (1999) conducted extensive interviews to gain an in-depth understanding of the implementation of geographical information systems for administrative applications in India. Phillips (1998) employed public discourse analysis to reveal the way in which concerns about anonymity, surveillance, and privacy are integrated into public understanding of a consumer payment system.

The Epistemological Lens

Orlikowski and Baroudi (1991) considered the influence of the epistemological lens – positivist, interpretive or critical – on the conduct of IS research. While there is some positivist, qualitative IS research (e.g., Lee 1989), most qualitative IS research is either interpretive or critical because of the assumption that “our knowledge of reality is a social construction by human actors” that precludes obtaining objective, value-free data (Walsham, 1995, p. 376). The interpretive epistemology has also spawned IS research employing hermeneutic methods (e.g., Boland, 1985, 1991, and Trauth & Jessup, 2000). Ngwenyama and Lee (1997) used the critical lens to examine information richness theory.

The Uncertainty Surrounding the Phenomenon

According to Galliers and Land (1987), the added complexity from including relations with people and organizations in a view of information systems introduces greater imprecision
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