Chapter 3
Postmodernism, Interpretivism, and Formal Ontologies

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ABSTRACT

This chapter investigates the relationship between postmodernism, interpretivism, and formal ontologies, which are widely used in Information Systems (IS). Interpretivism has many postmodernist traits. It acknowledges that the world is diverse and that knowledge is contextual, ever-changing, and emergent. The acceptance of the idea of more than one reality and multiple understandings is part and parcel of postmodernism. Interpretivism is, therefore, characterized as a postmodern research philosophy. To demonstrate this philosophical premise more concretely, the creation of the logical structure of formal ontologies is sketched as an example of typical interpretivist and postmodernist activity in IS.

INTRODUCTION

Humanities aspects and approaches are present and embedded in various branches of information and communication technology (ICT). One outstanding example is the increase in research on and use of "ontologies" in Information Systems (IS). This chapter investigates interpretivism as a postmodern research philosophy, as well as the problematic association between the philosophical concept of ontology and the notion of formal ontologies as it is used and researched in IS. The

chapter's objective is to show that both formal ontologies and the interpretivist paradigm used to create them show very clear postmodernist traits.[1]

Although the term ontology has been borrowed by Information Systems from philosophy, it has been given a slightly different meaning. The concept has been pluralised, but the two uses of the word are still historically and logically related. The author believes that the shift – from singular to plural – was made possible by the postmodern era that we live in. Like reality, knowledge and understanding have become fluid. Software development, too, did not escape the philosophical shift from modernism to postmodernism. Indeed,

one may also regard the creation of information systems ontologies in a positive way as the endeavour of academics to embrace the multifaceted nature of reality by representing subsets of it. On the other hand, the danger of formal ontologies is that, although they are meant to mirror and capture reality, ontology-based software could create hyperrealities that become more real than reality because it is typical of postmodernism that real life phenomena are replaced by representations.

This chapter is a purely conceptual study and no empirical methodologies are used (cf. Klein & Myers, 1999, p. 70 for a seminal paper using a purely conceptual approach). The central premise is that, although the singular and plural terms are used differently, they are still semantically related, and that postmodernism underpins the divergence in meaning. Using a qualitative approach, the chapter reflects on the intimate relationship between postmodernism, interpretivism, ICT, and formal ontologies.

After the concepts of postmodernism and interpretivism are defined and discussed, general postmodernist traits in IS and IS research are discussed. Formal ontologies are then explored as the epitome of postmodernism in this field. The chapter concludes with a critical discussion of the understanding and use of ontologies, highlighting some ironies and paradoxes, as well as dangers and opportunities.

BACKGROUND ON POSTMODERNISM AND INTERPRETIVISM

Postmodernism: A Survey of the Paradigm

Origins

The idea of multiple realities and parallel or divergent understandings is essential to postmodernist thinking. Critical theory and postmodernism both "draw attention to the social, historical, or political construction of knowledge, people, and social relations" (Mitev, 2006, p. 316). It is typical of the postmodern era that our concept of reality and knowledge is ever-changing (Tarnas, 1991, p. 395). Not only is our understanding of the world ambiguous and pluralistic, but the world itself is open and created by people: "Reality is not a solid, self-contained given but a fluid, unfolding process, an 'open universe,' continually affected and molded by one's actions and beliefs" (Tarnas, 1991, p. 396).

Since reality is not regarded as a single, concrete and objective phenomenon, postmodernists also reject an ontological priority and allow alternative readings in making sense of the world (Mitev, 2006, p. 321). Like reality, knowledge and understanding have become fluid. It is not possible to "grasp and articulate a foundational Reality" (Tarnas, 1991, p. 400). "Any alleged comprehensive, coherent outlook is at best no more than a temporarily useful fiction masking chaos, at worst an oppressive fiction masking relationships of power, violence, and subordination" (Tarnas, 1991, p. 401).

According to Harrison (2004, p. 165), postmodernism describes the current cultural and societal condition to which one could react in different ways; however, it is not a philosophical position that one could decide to accept or reject. Postmodernism may even be regarded as a new stratum in human civilisation (Siraj and Ullah, 2007, p. 1).

Postmodernism is everywhere around us, in literature, music, cinema and television (Sim, 2001a). Easthope (2001, p. 17) refers to examples in art in which the difference between the real and the apparent is cancelled, a typical example of the ambivalence inherent in postmodernism. In architecture, postmodernism comes to the fore in a "pluralistic admixture of styles" (Easthope, 2001, p. 18). In politics, groupings are fluid forming "micropolitical alliances" to promote individual issues, thus defying the traditional idea of political

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