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## **Chapter XVII**

# **Towards a Sociopragmatic- Constructivist Understanding of Information Systems**

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### **ABSTRACT**

*Contemporary understanding of information systems (IS) is flawed by fundamental problems in information systems research and practice. In this chapter, we claim that philosophical presuppositions have a great influence on our understanding of IS. Reflecting on the modernism-postmodernism debate and its methodological consequences for IS research, we derive the need for a paradigmatic foundation of IS research. Referring to Kuhn's concept of "paradigm," we develop a framework for the conceptualization of "paradigms of inquiry." We use the notion of "model," which we believe to be pivotal for the understanding of IS, to illustrate the implications of the adoption of a "paradigm of inquiry." In response to a criticism of both the positivist and the*

*radical-constructivist paradigms, we develop a paradigm called “sociopragmatic constructivism” (SPC). Presupposing that human inquiry relies on social contextualization, common practice and cultural history, we propose an agenda for upcoming IS research grounded in SPC.*

## INTRODUCTION

Recurring failures in the development of information systems (IS) (Boustred, 1997), the persistence of the “software crisis” (Gibbs, 1994; Naur & Randell, 1969), as well as the “productivity paradoxon” (Attewell, 1994; Brynjolfsson, 1993; Strassmann, 1997) indicate that information systems research (ISR) — in spite of all progress made at the methodic level — did not proceed very far in developing a methodological foundation for the understanding of these problems. Their persistence gives rise to the question of the appropriateness of today’s presuppositions in IS research and practice, and provides a practical motivation for engaging in more fundamental, methodological reflections. Consequently, these exceed today’s known boundaries of ISR, and extend to disciplines like philosophy of science, anthropology, sociology, and psychology.

Furthermore, a review of the publications in major outlets of the ISR community makes quite obvious that methodological considerations as well as underlying philosophical presuppositions are rarely explicated. This (prevailing) negligence of philosophical considerations has severe consequences for IS research *and* practice. As Collier (1994) states:

*“a good part of the answer to the question ‘why philosophy?’ is that the alternative to philosophy is not no philosophy, but bad philosophy. The ‘unphilosophical’ person has an unconscious philosophy, which they apply in their practice — whether of science or politics or daily life” (p. 17).*

In the early days of ISR, Gorn (1958) writes to the editor-in-chief of the *Communications of the ACM* (CACM) that “philosophy has served some of its most important functions to the world of communication in the society by [...] critical evaluations of the fundamental concepts of the arts and sciences.” He concludes the “general subject matter of the letters-to-the-editor department should include, then, the philosophy of computing” (p. 2). As can be observed in editions of the CACM ever since, Gorn’s idea did not result in much change yet.

As a reason for this lack of transdisciplinarity in ISR, McFarlan (1984) states:

*“...many IS researchers, although they possess strong technological skills, lack the tools and perspectives necessary for cross-disciplinary work. Further, even if they have such skills, IS scholars are often not intellectually inclined to undertake these complex studies” (p. 2).*

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