Chapter II
Adapting the Structurationist View of Technology for Studies at the Community/Societal Levels

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ABSTRACT

The multilevel framework proposed in this chapter is particularly useful for research involving complex and multilevel interactions (i.e., interactions involving individuals, groups, organizations and networks at the community, regional or societal levels). The framework is influenced by three theoretical perspectives. The core foundation comes from the structurationist view of technology, a stream of research characterized by the application of structuration theory to information systems (IS) research and notably influenced by researchers like Orlikowski (2000) and Walsham (2002). In order to extend the framework to encompass research at the community/societal levels, concepts from social shaping of technology and from contextualism have been integrated. Beyond sharing a number of ontological and epistemological assumptions, these three streams of thinking have been combined because each of them offers particular concepts that are of great value for the kind of studies the authors wish to put forward: investigating the influence of information and communication technology (ICT) from a structurationist standpoint at levels that go beyond the organizational one.

INTRODUCTION

Understanding the influence of *information and communication technology (*ICT) in social life is complex, no matter what lens is adopted to study it. In the information systems (IS) field of research, a range of different social theories have been borrowed and adapted in order to gain insight into the interaction of ICT (its design, adoption, implementation and use) and people at different levels (individual, group, organizational and macro). We found institutional theory (Avgerou, 2000), structuration theory (Barley, 1986), critical social theory (Doolin, 1998; Yetin, 2006), actor network theory (Sarker et al, 2006), social construction of technology (Williams, 1997) and symbolic interactionism (Gopal & Prasad, 2000) to be among the most influential social theories applied in IS research.

A number of recent papers have outlined the particular importance of one of these social theories in IS research: structuration theory. Although structuration theory is not specific to IS, but is rather a general social theory, it has been argued it is used in IS research more than in other areas of organizational research (Pozzebon & Pinsonneault, 2005). In a recent and comprehensive review, Jones and Karsten (2008) noted that structuration theory has been cited substantively in more than 330 IS papers to date, including conceptual and empirical studies. What's more, the contribution and potential of structuration theory in general, and more particularly of the structurationist view of technology, for gaining insights on ICT phenomena, is widely accepted.

In this paper, we propose a multilevel framework that extends the structurationist view of technology to investigate the adoption, implementation and use of ICT at the community/societal levels. In line with Burton-Jones and Gallivan (2007), we apply the term multilevel to refer to a type of framework that entails more than one level of conceptualization and analysis. However, where we differ from the latter authors is regarding the ontological stance. While they place multilevel research within an organization science perspective that adopts a functionalist, positivist and variance-oriented stance (p. 3), we place our multilevel framework within a constructivist tradition that views any social research as processual and *inherently multilevel*.

We also argue that most studies that use the structurationist view depict technology as reinforcing or transforming the institutional properties *of organizations*, i.e., that can be associated with research at the organizational level. Jones and Karsten (2008) highlight such a limitation and identify opportunities for future structurationist IS research to address the relationship between ICT and people in broader contexts than just the specific organizational setting. Greater effort should be made to "broaden the scope of IS research from its traditional focus on phenomena associated with computer-based information systems at the individual, group, and organizational levels, to address the broader institutional and social developments in which IS are increasingly implicated" (Jones & Karsten, 2008, pp. 150).

The organizational level of analysis has hitherto dominated discussion not only in IS but, to a large extent, in management research which arguably correlates with the power held by corporations that occupy a privileged place in the economic world. Nonetheless, t*he importance of studies at the community/societal level is rising, as researchers worldwide become more aware that, as* a society, we will be incapable of dealing with important issues such as social welfare, social equity and sustainability if we continue to focus merely on doing what we are currently doing more efficiently, research included. New forms of social and economic relations as well as new ways of balancing human needs and natural resources are likely to emerge. These needs transcend those organizational problems that IS researchers have traditionally focussed on: productivity, performance, risk, satisfaction and other constructs related to the impact of IT at the organizational or inter-

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