Self-Determined Adoption of an ICT System in a Work Organization

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ABSTRACT

This interpretive single case study examines the process and implications of the self-determined adoption of an internet-based meeting system in a global company. Self-determination theory and structuration theory are used as theoretical lenses to understand the adoption and use of an ICT system. The data were collected using qualitative semi-structured interviews with eleven system users and analyzed using a content analysis approach. The research shows that the self-determined adoption of ICT systems has benefits like user motivation and satisfaction. Problems in such adoption relate to users’ experiencing uncertainty regarding the organizational legitimation of the system and support for its use. Employees and organizations are likely to benefit from self-determined adoption because it promotes employees’ motivation and initiative-taking. However, a shared understanding of self-determination and organizational support for it are required.

Keywords: Implementation of ICT Systems, Institutional Change, Interpretive Single Case Study, Self-Determination, Structuration Theory, User Adoption

INTRODUCTION

The implementation of Information and Communication Technology (ICT) systems is often described as a predetermined and controlled process. This paper documents an ICT system implementation process of a very different sort; we had an unexpected opportunity to study implementation as an organic and decentralized process. This opportunity came up while we were conducting a preliminary study for a research project focusing on the user and organizational factors and outcomes in ICT system adoptions. As appropriate in a preliminary study, we used exploratory interview questions that allowed the interviewees to broadly describe their experiences of why and how an ICT system was put into use, what problems and benefits the system brought along with it, how the system was used in the company, how the system assisted learning at work, and what kind of user support was available. An important interest area was the emergent learning processes, both

DOI: 10.4018/joeuc.2010100103
during the initial adoption and eventual day-to-day use of an ICT system.

After the whole research project was finished, one observation from this preliminary study remained unexplained. In this particular implementation process, addressing the adoption of an internet-based meeting system, most interviewees expressed satisfaction with the way the system was introduced, and they stated that the system was adopted successfully and in good spirits. According to the literature, such smooth adoption processes are rare, and the adoption of an ICT system often causes problems, especially in terms of user resistance (Adams, Berner, & Wyatt, 2004; Chen & Lou, 2002; Jiang, Muhanna & Klein, 2000; Klaus, Wingreen, & Blanton, 2007; Nunamaker, 1997; Orlikowski, 1993). This led us to explore further this successful adoption process in which the users interviewed expressed their willingness to use the system.

These explorations indicated that the users voluntarily adopted the internet-based meeting system and their interests guided its adoption and use. There was little organizational communication concerning the system, and many actually learned about the system from a peer. Each user was allowed to decide freely whether to use the system or not, and also to decide the purpose of its use. In short, the organization provided an ICT system for its employees and provided some information on different possible reasons for utilizing it, but allowed the users to decide if the system was beneficial for their work and whether or not to utilize it. Because of these characteristics of the adoption process, we started to call it self-determined adoption. Self-determined ICT system adoption thus means a process in which the system users decide on whether and how to adopt the system; the users also coordinate their own learning processes during the adoption in terms of learning strategies, resources, and situations. They also assess and control the outcomes of the adoption process and experience themselves as autonomous in the process (cf., Deci & Ryan, 2000; Knowles, 1975).

We therefore had in our hands a special single case of a self-determined ICT system adoption process that left the users satisfied with the system and motivated to use it. To describe this self-determined adoption process analytically and more formally, we articulated two new research questions and completely reanalyzed the data set (see Hinds, Vogel, & Clarke-Steffen, 1997; Thorne, 1994) to respond to two questions:

1) How does the self-determined adoption of an ICT system proceed?
2) What possibilities and problems do the users perceive in the self-determined adoption and use of an ICT system?

There are several descriptions of and models for the introduction and adoption of ICT systems in the literature. Most often, the models depict an implementation process proceeding step by step from the scanning of organizational needs to a full and effective use of technology in daily practices (see e.g., Cooper & Zmud, 1990; Kwon & Zmud, 1987; see also Orlikowski & Hofman, 1997, for the critique and an alternative view to change). This is the prevailing view of an ICT implementation process. However, the initial analysis of our case indicated that the adoption process in question could not be described as such a predetermined step-by-step process: an alternative theoretical framework was needed to capture the dynamics of the case. We found that the insights of Barley and Tolbert (1997), DeSanctis and Poole (1994), and Giddens (1984) concerning structuration theory and institutional change resonated in our case. Therefore, we decided to use their approaches as preliminary theoretical concepts (cf., Yin, 2003a) when describing our case.

A further element of theory relevant to our case was the autonomy or self-determination of the system users. An opportunity for self-determination, or autonomous regulation of one’s activities, has a powerful impact on an individual’s behavior and development (Deci & Ryan, 2000; Knowles, 1975). Having rec-
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