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

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during the initial adoption and eventual day-
to-day use of an ICT system.

After the whole research project was fin-
ished, 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 com-
munication 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 pos-
sible 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 adop-
tion 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,

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 us-
bers perceive in the self-determined adoption
and use of an ICT system?

There are several descriptions of and mod-
els 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 alterna-
tive 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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