Collaboration Technology Adoption: Is It Me or Them?

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ABSTRACT

This article investigates technology readiness and social influence in the context of collaboration technology acceptance. The authors also explore these factors in terms of their impact on technology appropriation and repurposing to go beyond classical adoption research focused on initial acceptance of technology. The authors find that social influence is a dominant factor in the context of individuals’ acceptance of collaboration technologies, outperforming technology readiness and classical adoption measures. Based on an exploratory PLS study conducted among student users of a collaboration technology, this study is among the first to explore and conceptualize the role of social influence and technology readiness in technology acceptance. This is a particularly valuable advance for studying collaboration technologies because individuals’ use of these technologies is shaped in social interaction and through personal psychological dispositions. This helps managers to successfully introduce collaboration technologies, a key tool for enabling workplace and customer engagement innovation.

KEYWORDS

Collaboration Technology, Personal Network Exposure, Technology Acceptance, Technology Adoption, Technology Readiness

1. INTRODUCTION

The portfolio of technology used to support communication or collaboration within organizations is changing rapidly. Today, an organizations’ employees are increasingly used to web 2.0 technologies in private life, which could help to make the implementation of corporate web 2.0 technologies more successful and help realize the anticipated business benefits (Andriole, 2010; Orlikowski, 2000, Raeth & Mueller, 2012). But the increasing familiarity with new technologies might also lead to new challenges for organizations introducing new IT. For instance, their team members’ capacity and competence to use IT might differ strongly, thus making uniform introduction and training strategies challenging or even ineffective.

Such differences in individuals’ capacity to use a new technology is particularly relevant in the context of collaboration technology. Here, the social influence among different users is of particular importance because all collaboration technologies are designed to be used together with other group members and not by any one individual alone (Brown et al., 2010; Sarker & Valacich, 2010). Nonetheless, as Eckhardt et al. (2010) state, the influence of social environments on technology usage is still not sufficiently examined, and research on the adoption of online collaboration technology is particularly scarce (Brown, Dennis, and Venkatesh, 2010; Kane and Fichman, 2009). While several

DOI: 10.4018/IJTD.2018070102

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technology acceptance models have been tested and validated in various meta-analyses (Dwivedi, Rana, Chen, & Williams, 2011; Mathieson, 1991; Sheppard, Hartwick, and Warshaw, 1988; Taylor and Todd, 1995), the disintegrated use of additional external variables for extending the core frameworks has been sharply criticized (Benbasat and Barki, 2007).

To help advance our understanding of adoption of collaboration technology, we analyze the meaning of social influence and individual technology readiness on collaboration technology usage. Following the discussions about necessary re-adjustments of the dependent variable of technology usage (Bagozzi, 2007; Burton-Jones & Straub, 2006), we explore the effect of social influence and technology readiness on actual collaboration technology use and on appropriation and repurposing efforts.

To approach this research objective, we draw on the Technology Readiness Index (TRI) (Parasuraman, 2000) and propose to integrate the construct of social influence (Bagozzi, 2007; Benbasat & Barki, 2007). Such a combination of concepts bears high potential to advance technology acceptance research as it will advance our understanding of inter-personal differences in technology acceptance. In particular, we study the impact of individual predisposition (psychological level) by examining the technology readiness and social predisposition (socio-psychological level) by accounting for social influence. In line with recent developments in the context of information systems (IS) research, we go beyond mere usage intentions and explore actual system use. Additionally, in acknowledgement of the criticism that technology adoption research is dead (Venkatesh, Davis, & Morris, 2007) and the call for new theory (Benbasat & Barki, 2007), we furthermore propose a research model that accounts for users appropriating and repurposing well-known technologies in a new usage environment. This goes beyond the traditional approach to explain the adoption of one specific technology in a certain environment by particularly accounting for individuals’ post-adoption behaviors.

In sum, our work provides the following contributions: (1) From a theoretical perspective we extend previous research by integrating online collaboration technology into adoption research and using social influence and technology readiness as antecedents. (2) From a methodological perspective the research uses an extended technology acceptance model conceptualizing actual system usage and usage of alternative technologies as dependent variables. (3) From a practical perspective our research examines the meaning of individuals’ prior private technology usage experience to organizational IT strategies.

The paper is structured as follows. Firstly, we shortly provide the theoretical background on technology adoption, collaboration technology, and appropriation and repurposing research. Secondly, we present our research design, data collection and analysis methods. Thirdly, we present and discuss our empirical findings and implications for theory and practice. A final conclusion summarizes the paper.

2. THEORETICAL BACKGROUND

In this section, we present an overview of extant technology adoption theory. We explain social influence and technology readiness as extensions to fit prevalent technology adoption research and to adapt it to collaboration technologies. In effect, we propose a Technology Acceptance Model for Collaboration Technology.

2.1. Collaboration Technology Adoption

A very early definition of collaboration technology describes it as “computer-based systems that support groups of people engaged in a common task (or goal) and that provide an interface to a shared environment” (Ellis, Gibbs, & Rein, 1991: 40). These technologies allow communication in groups, collaboration on a shared space, and coordination of groups, actions, and resources (Ellis et al., 1991; Fuks, Raposo, Gerosa, & Lucena, 2005).
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