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# Technology Affordances and IT Identity

*Research Idea*

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## **Abstract**

*The study attempts to understand the impact of technology affordances on identifying the self with technology (IT identity). Furthermore, it seeks to understand the role of experiences in mediating the relationship between technology affordances and IT identity. To answer our research questions, we will conduct a cross-sectional survey.*

**Keywords:** IT affordances, IT identity, enterprise social media.

# IT Affordances and IT Identity

## Research Idea

### Introduction

In IS research, the concept of IT affordances is used to refer to “an action potential, that is, to what an individual or organization with a particular purpose can do with a technology or information system” (Majchrzak & Markus, 2012). The Affordances concept provides a rich approach to understand the impact of technology on individual behavior. It facilitates conceptualization of individuals’ perceptions and IT use based on the relationship between technology features and individual’s goals and purposes. Technology affordances is identified as a promising means for understanding how technology is embedded and routinized into everyday behavior (Faraj & Azad, 2012).

According to Carter and Grover (2015) ubiquitous computing and embedded technology into daily life leads to identifying the self with technology. IT identity, as they term it, is defined as “the extent to which an individual views use of an IT as integral to his or her sense of self” (p. 932). Malleable technology such as social media is more likely to be considered an integral part of the sense of self. It provides unprecedented important affordances that can be incorporated into the self-concept and present a ‘better’ self. Social media at the workplace provides a context that is more fluid, with various new capabilities can be included after its implementation (Lyytinen & Yoo, 2002; Yoo, Boland Jr, Lyytinen, & Majchrzak, 2012). This type of technology can be modified to fit individuals’ needs and purposes (Castells, 1996), consequently, creates potentials and new opportunities for personal innovations (Holtzblatt & Tierney, 2011; Treem & Leonardi, 2013).

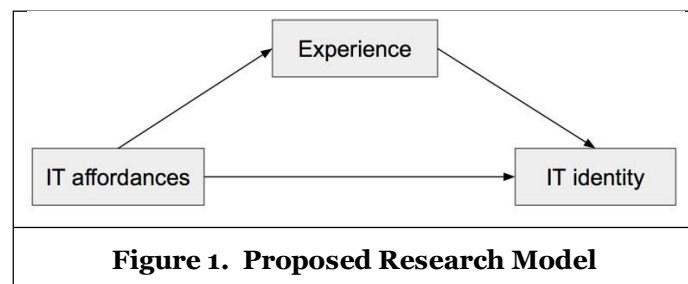
Given the nature of affordances, researchers are increasingly adopted this approach for studying IT adoption and use (Cabiddu, Carlo, & Piccoli, 2014). Scholarly works have recently used this approach to review literature on enterprise social media (ESM) and show how the perceived affordances reshape individual’s behavior (Treem & Leonardi, 2013), enhance team processes and effectiveness (Ng, Leonardi, & Contractor, 2017), increase the level of engagement in knowledge conversations among workers (Majchrzak, Faraj, Kane and Azad, 2013). Literature has not considered the impact of IT affordances on IT identity. Therefore, this paper attempts to provide a plausible theoretical explanation of the impact IT affordances on identifying the self with social media at the workplace.

On the other hand, prior experiences and knowledge with technology impact individuals’ perceptions (Norman, 2013). Many studies, such as Abhari, Xiao, and Davidson (2018), have found that past experiences influence the relationship between technology affordances and users’ activities. Accordingly, we propose that prior experiences and knowledge moderate the relationship between technology affordances and IT identity.

Therefore, this study seeks to answer two research questions: What is the impact of technology affordances on IT identity? and to what degree experiences mediate the relationship between IT affordances and IT identity?

### Theoretical Background and Research Model

To answer our research questions, we developed a theoretical research model (Figure 1).



## **IT Identity**

Carter and Grover (2015) introduce IT identity theory and they define it as “the extent to which an individual views use of an IT as integral to his or her sense of self” (p. 932). The strength of identification with an IT is reflected by three dimensions: emotional energy, relatedness, and dependence (Carter & Grover, 2015). Much of studies have investigated the impact of IT identity on individuals’ behavior. For instance, You and Robert (2017) find that attributing a special meaning to the EPA robot promotes team work performance. Alahmad, Pierce, Carter, Robert’s (2018) results show that identifying the self with social media at the workplace positively impacts job performance and satisfaction.

However, little is known about the antecedents and determinants of IT identity. Our study adopts technology affordances approach to argue how the perceived potential actions of an IT determines the degree of identifying the self with technology.

## **Technology Affordances**

Gibson (1979) defined affordance as “an action possibility available in the environment” (McGrenere & Ho, 2000, p. 1). According to Gibson, affordances exist independent of perceptions and do not change as the needs and desires of individuals change. Some of affordances can be perceived immediately with little effort and some of them is perceived over time.

## **Enterprise social media (ESM) affordances**

Researchers have argued that affordances approach is a context-specific (Faraj & Azad, 2012; Strong et al., 2014; Malhotra & Majchrzak, 2012). The context of our study will be ESM. It is a social media platform developed to enable internal social interaction among workers within the organization. ESM mimics in features and functionality public social media networking sites (Leonardi, Huysman, & Steinfield, 2013).

Treem and Leonardi (2013) identified four affordances that emerge from ESM use at the workplace: editability, association, visibility, and persistence. These affordances act like capabilities that can be incorporated into the self-concept. We will argue that individuals who highly perceive ESM affordances are continuously seeking the opportunity to incorporate these affordances into their self-concept which in turn foster IT identity.

## **Prior experiences**

Prior experiences with IT impacts individuals’ perceptions (Norman, 2013). A study conducted by Abhari et al. (2018) find that experiences influence the relationship between online platform affordances and innovation activities. Our paper will argue that experience mediates the relationship between IT affordances and IT identity, such that individuals who have successful experiences with social media are more likely to strongly identify themselves with it.

## **Method**

We will conduct a survey to answer the research questions. To measure perceived IT affordances, we will use items from Rice et al. (2017). The scale comprises affordances of various organizational communication technologies such as conferencing, texting, and social media. In our study we will choose only four affordances: visibility, editability, association, persistence. These affordances have been commonly argued in the ESM literature. To measure IT identity, we will use six items of IT identity developed by (Carter, 2013). Experiences will be measured by seven items from Igbaria and Iivari (1995).

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