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Linking Coping Emotions to IT Events: A Conceptual Framework

Emergent Research Forum (ERF)

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Abstract

Many studies in the IS field have been devoted to the emotional adoption of technology and its impact on the user's selected coping strategy. However, research on which IT events trigger which emotions is seldom reported in existing literature. The purpose of this paper is to develop a conceptual framework that classifies IT events based on the emotions they trigger. Our research will potentially have two contributions. First, we would develop a framework that classifies IT events based on the emotions it triggers, which helps predict users selected coping strategy based on the IT event occurring. Second, by identifying which IT events trigger which emotions, we would extend existing cognitive-based models and help predict and explain the impact of different IT events.

Keywords

emotions, IT adoption, coping strategy, conceptual framework.

Introduction

The importance of digitalization has been growing over the last decade, changing the behavior and performance of people, consumers, businesses, and organizations (Myovella et al., 2020). Digitalization has brought about a significant strategic technology-based change that can provide a competitive advantage to adopting organizations (Yli-Viitala et al., 2020). Digitalization is about introducing digital technologies, and this raises issues regarding how people within the organization adopt or cope with these new technologies introduced by the organization. Successful digital transformation therefore requires not only strategic vision but also good understanding of the technologies to be adopted (Heavin and Power, 2018) and the dynamics of this adoption (Ortiz de Guinea and Webster, 2009).

Different scholars in the information systems (IS) field have studied technology adoption (Venkatesh et al., 2003). Some of these studies focused on emotional adoption and its role in continuous IT use (Bhattacharjee, 2001; Brown et al., 2004; Cenfetelli, 2004). Most of these studies investigated the impact of different types of emotions such as pleasure (Kim et al., 2004), anxiety (Compeau and Higgins, 1995; Todman and Monaghan, 1994; Venkatesh, 2000), and affect (Lankton et al., 2010) on IT use. Other scholars studied the role of emotions in selecting the user coping strategy (Beaudry and Pinsonneault, 2010; Bhattacharjee et al., 2018; Zheng and Montargot, 2020). However, none of these studies has found a link between specific technological features and IT events and the coping emotions triggered.

In this emergent research paper, we present a research framework that can answer the still open call from Beaudry and Pinsonneault (2010) to investigate which technological features trigger emotions. By linking technical features to IT events, we can also identify which IT events trigger which emotions. Our main contribution in this paper is the development of a conceptual framework that classifies technological features and IT events based on the emotions triggered by them. By linking emotions to IT events, our framework would help predict users selected coping strategy based on the IT event occurring. Once completed, our research would extend existing cognitive-based models and help predict and explain the

impact of different IT events. Our research would provide an integrated picture of emotions and their relationships with different IT events and show that specific technological features and IT events trigger a specific type of emotion.

The remainder of this paper is organized as follows. In the next section, we present a literature review on emotions in IS research and state our theoretical lens. Then we introduce our conceptual framework and research plan. After that, we present the potential theoretical and practical contributions. Finally, we conclude the paper by stating how we plan to progress our research.

Emotions in IS Use Research

IT use has been defined as a “behavior (what a user does), cognition (what a user thinks), and/or an affect (what user feels)” (Burton-Jones and Gallivan, 2007). A group of emotions, cognitions, and behaviors happening together represent an IT use pattern (Ortiz de Guinea and Webster, 2013). Emotions are defined as a “mental state of readiness for action that promotes behavioral activation and helps prioritize and organize behaviors in ways that optimize individual adjustments to the demands of the environment” (Beaudry and Pinsonneault, 2010). Emotions arise when an individual perceives an event as important and relevant (Bagozzi et al., 1999).

Scholars agree that emotions play a role in IT adoption and in the continuous use of IT after implementation. As a result, many studies have attempted to identify the impact of specific types of emotions on IT use. Anxiety, defined as the feelings of apprehension that one experiences, is one of the most studied emotions. All studies agree that anxiety has a negative impact on IT use (Todman and Monaghan, 1994), intention to use (Venkatesh et al., 2003), and attitude towards use (Brown et al., 2004). Other emotions proposed to have a negative impact on IT use are anger (Beaudry and Pinsonneault, 2010; Zheng and Montargot, 2020) and fear (Zheng and Montargot, 2020). The range of emotions studied to have a positive impact on IT use is much wider than those studied to have a negative impact. Among these, enjoyment, defined as “the extent to which the activity of using a specific system is perceived to be enjoyable in its own right”, has been found to be positively related to intention to use (Koufaris, 2002) and to perceived ease of use (Venkatesh, 1999; Venkatesh, 2000). Other emotions found to have a positive impact of IT use include flow (Webster et al., 1993), affect (Compeau and Higgins, 1995; Compeau et al., 1999), playfulness (Webster and Martocchio, 1992; Venkatesh, 2000), and excitement and happiness (Beaudry and Pinsonneault, 2010).

In terms of IT events, Ortiz de Guinea and Webster (2013) investigated which IT events trigger which IS use patterns, but not which emotions. They categorized IT events into three different categories: expected IT events, discrepant IT events, and discovery IT events. Expected IT events are ordinary events characterized by a match between the expectations of the user and the performance of the IT (Tyre and Orlikowski, 1994); discrepant IT events are unexpected events that entail a problem, a misunderstanding or a difficulty with the IT being employed (Cenfeteli and Schwarz, 2011; Tyre and Orlikowski, 1994); while discovery IT events are unexpected events characterized by the discovery of new functionality of the technology (Tyre and Orlikowski, 1994). Their findings indicated that different IT events result in different IS use patterns.

The majority of the studies in IS literature focused on the impact of emotions on IT use. In terms of IT events, the few studies that addressed this issue only looked at which use patterns it creates. There is a lack of studies that investigated which technological features and IT events trigger which type of emotions. Our study aims to fill this gap. Understanding which emotions are triggered by which IT events and technological features can allow us to link those to user coping strategies, given that the link between emotions and user coping strategies is already established (Beaudry and Pinsonneault, 2010). By creating a link between IT events/technological features and user coping strategy, we can help predict user coping strategies based on the potential IT event.

Theoretical Lens

In this research, we rely on the coping theory from the psychology literature (Folkman and Lazarus, 1984) as our theoretical framework. The coping theory looks at the processes that individuals use to react to disruptive events that happen in their environment. The introduction of new technology can be viewed as a

disruptive event resulting in changes in the procedures and processes of an organization, and this coping theory presents an appropriate lens to study such an event (Markus and Robey, 1988)

Many studies in the literature that focused on the role of emotions in IT use relied on the coping theory as the theoretical framework (Beaudry and Pinsonneault, 2005; Beaudry and Pinsonneault, 2010; Ortiz de Guinea and Webster, 2013). The coping theory states that individuals use two key subprocesses to cope with disruptive events (Lazarus, 1966). The first subprocess is the event appraisal, where individuals evaluate the relevant event: its consequences, nature, personal importance, and significance (Folkman, 1992). The second subprocess is the coping efforts, where individuals deal with the disruption, they are facing through different actions they take. Individuals during this subprocess rely on a combination of cognitive and behavioral efforts which have been categorized as either emotion-focused, or problem-focused (Beaudry and Pinsonneault, 2005; Folkman, 1992; Stone et al., 1992).

Conceptual Framework

Beaudry and Pinsonneault (2005) present a coping framework of user adaptation strategies outlining four adaptation strategies: benefits maximizing, benefits satisficing, disturbance handling, and self-preservation. If the event was assessed as an opportunity, users choose benefits maximizing or benefits satisficing as an adaptation strategy; if the event was assessed as a threat, users choose disturbance handling or self-preservation as an adaptation strategy (based on the level of control they have).

Another framework (Figure 1) relying on the coping theory and based on the primary and secondary appraisals of an event by Beaudry and Pinsonneault (2010) classified emotions into four categories: achievement emotions (such as happiness, joy, pleasure), challenge emotions (such as excitement, hope, anticipation), deterrence emotions (such as anxiety, fear, worry), and loss emotions (such as anger, dissatisfaction, frustration). If an event was assessed as an opportunity, users would experience challenge or achievements emotions; if the event was assessed as a threat, users would experience deterrence or loss emotions (based on the level of control they have).

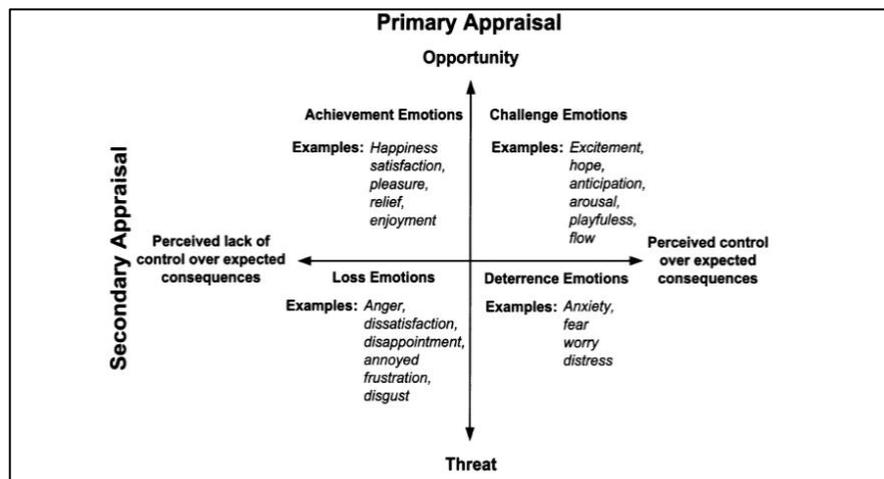


Figure 1: A Framework for Classifying Emotions (Beaudry and Pinsonneault, 2010)

In this paper, we draw on both frameworks developed by Beaudry and Pinsonneault (2005, 2010) to propose a conceptual framework that classifies technological features and different types of IT events based on the emotions that users experience during these IT events or when using these technological features. By identifying which emotions are triggered by which technological features and IT events, we propose that we can link the technological features and IT events to the user’s selected coping strategy, and classify these technological features and IT events with respect to the primary and secondary appraisals.

Our conceptual framework will categorize technological features and IT events based on the emotions they trigger. Based on Beaudry and Pinsonneault (2010) framework for classifying emotions (Figure 1), we provide below in Figure 2, an example of what our conceptual framework could look like. Our current

classification used is only for illustration purposes to clarify how would the framework look like. The final categorization will be the result of the data analysis once performed.

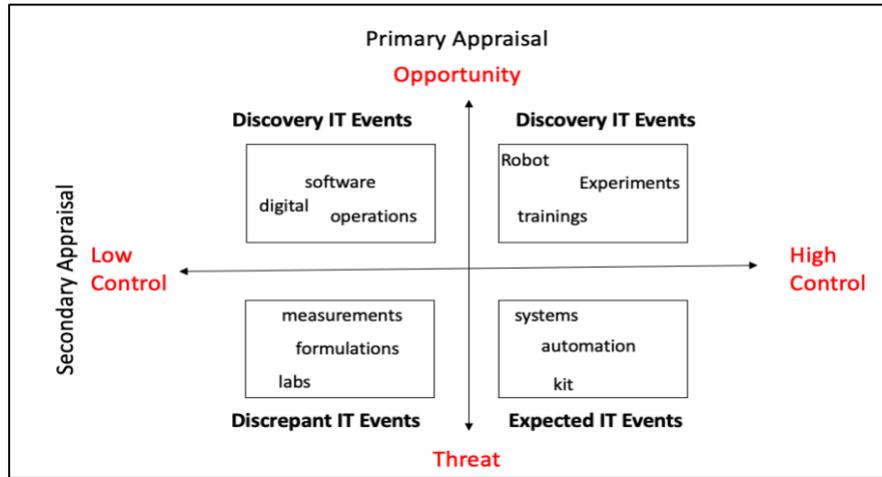


Figure 2: A Conceptual Framework for Classifying Technological Features and IT Events

Research Plan

We plan to follow a case study approach to test our conceptual framework using mixed methods. We will rely on qualitative data to identify different technological features associated with digital technology. We have completed 30 semi-structured interviews, which were done with a focus on a digital transformation of a R&D center of one of the leading fast moving consumer goods (FMCG) companies. The next step would be to develop a survey instrument to collect quantitative data that would allow us to categorize these technological features with respect to IT events (mapping technological features to IT events), and most importantly, to understand which emotions are triggered when using these features.

Potential Contributions

Our main theoretical contribution in this paper is developing a framework that classifies IT events and technological features based on the emotions they trigger, relying on Beaudry and Pinsonneault (2010) framework for classifying emotions, and on Beaudry and Pinsonneault (2005) coping model of user adaptation. By linking emotions to IT events/technological features, our framework helps predict users' selected coping strategies based on the IT event occurring. Second, by identifying which IT events and technological features trigger which type of emotions, our research - once completed - would extend existing cognitive-based models and help predict and explain the impact of different IT events. Our research would provide an integrated picture of emotions and their relationships with different IT events, showing which IT events trigger which type of emotions.

Our main contribution to practice lays on the fact that it would help managers anticipate which emotions will be triggered by a planned IT event. Based on that, managers can attempt to modify the presentation of an IT event so that it is perceived as a specific IT event by employees, which would result in triggering positive emotions. Users would then perceive the event as an opportunity and select coping strategies that would result in higher user acceptance rates.

Conclusion

In this emergent research paper, we provided a literature review on emotions in the IT field and its effect on IT use. We highlighted a research gap referring to the lack of studies that identified which technological features and IT events trigger which type of emotions. We build on previous frameworks to propose a conceptual framework that classifies technological features and IT events based on the emotions they trigger, thus allowing us to predict which coping strategy a user would select based on the technological

feature or IT event they are dealing with. Our future research will focus on collecting and analyzing data that would allow us to test our conceptual framework.

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