WHEN TECHNOLOGY MEETS HUMAN DESIRES

Abstract

Adopting an alternative, yet complimentary view to the traditional, performance-based task/technology fit perspective, we examine the post-adoption of social network sites (SNS) by extending the concept of IT desirability as a central predictor of SNS continuous-use. We conceptualize SNS desirability as reflecting the affective relationship individuals experience with SNS, an approach that emphasizes both the IT and the individual as two social actors whose characteristics jointly determine the emotional outcome of their interactions.

Based on the 16 basic desires of Sensitivity theory we explore individual differences to uncover intrinsic motives that can explain SNS continuous-use. We hypothesize that SNS desirability is influenced by the compatibility between individuals’ basic desires and the capability of an SNS to satisfy them. This individual-SNS fit is then hypothesized to influence SNS continuous-use through the construct of desirability. Subsequently, these hypotheses will be empirically assessed in the context of several popular SNSs.

Keywords: Individual characteristics/individual differences, Post-Adoption, Hedonic product, Social networks, Individual/Technology Fit
Introduction

Technology acceptance is a central research topic in the IS literature (Benbasat and Zmud 2003; Sidorova et al. 2008), and its main decisions, adoption and post-adoption, have been often investigated via a variety of theories and models. While technology acceptance researchers originally focused their efforts on initial adoption decisions, more recently, post-adoption behaviors have been attracting increasing interest; mainly motivated by the major impact these behaviors have on IS success (Jasperson et al. 2005; Limayem et al. 2007).

Aligned with adoption research, most post-adoption theories have remained centered around IS use, depicted as a fundamentally intentional and conscious decision that is based on rational evaluations of perceptions and beliefs (Bhattacherjee 2001; Venkatesh et al. 2008). Nonetheless, past research has also shown that such intentional decisions are also influenced by affective and emotional responses to technology use (Agarwal and Karahanna 2000; Kim et al. 2007; Zhang et al. 2006). With that in mind, many affect-centric post-adoption studies have highlighted the role of positive/negative emotions and examined their role in IS use by essentially following a cognitive evaluation scheme of threats and control levels, and triggered by IT-related events (Beaudry and Pinsonneault 2005, 2010). Yet, individuals can also experience complex emotional bonds with certain technologies, triggered by the individuals themselves, and such bonds have been argued to strongly influence their future technology related behaviors (Cheikh-Ammar and Barki 2012). Moreover, recent research has suggested that individuals frequently establish affectionate relationships with specific technologies, sometimes even reaching the form of love (Lindstrom 2011), which can also influence their post adoption behaviors. Consistent with this view, IT Desirability was recently suggested as a relevant construct that reflects the passionate relationship individuals can experience with some IT, shaping their post-adoption continuous use decisions (Cheikh-Ammar and Barki 2012), typically in the context of hedonic IS (Van der Heijden 2004) and experiential computing (Yoo 2010). As such, this paper further examines the construct of IT Desirability within the post-adoption frame to uncover factors that can influence its occurrence and intensity in the specific context of social network sites.

IT desirability, a passionate relationship between an individual and a specific IT, in this case a social network site, is based on the interaction (or series of interactions) between the two parties seen as social actors (Al-Natour and Benbasat 2009). The characteristics of each are thought to shape their emotional relationship which in turn is expected to influence post-adoption outcomes. This view sheds light not only on the characteristics of the social network site, but also on the importance of individual differences in the formation of such passionate relationships. That is, individual differences are expected to play an important role in the way users experience a social network site, which will then affect their experienced desirability. More specifically, it is expected that different individuals, who have different personalities, goals and desires, will interact differently with a given social network site and will form different dyadic beliefs related to it (Al-Natour and Benbasat 2009), which will lead to divergent impacts on their post-adoption behaviors. The relevance of individual differences have been noted in the IS literature and their significance has been highlighted throughout the years (Devaraj et al. 2008). For example, individual differences have been suggested as relevant determinants of IS acceptance, where individual cognitive and attitudinal distinctions are expected to impact IS success (Zmud 1979). Individuals' cognitive styles have also been suggested as one of many individual characteristics capable of influencing the well-known technology acceptance beliefs, perceived usefulness and perceived ease-of-use (Agarwal and Prasad 1999).

Following a similar line of reasoning, we suggest that individual differences play an important role in SNS post adoption and suggest that the fit between these differences, examined through individuals' basic desires (Reiss 2000), and the perceived capabilities of a technology, will shape post-adoption behavior through the construct of IT desirability. We will assess the concept of overall fit as profile deviation via a Euclidian distance approach (Barki et al. 2001; Venkatraman 1989) and the relationship between its individual components via polynomial modeling and response surface analysis (Edwards 1994, 1996; Klein et al. 2009; Titah and Barki, 2009; Venkatesh and Goyal 2010). In so doing we hope to contribute to the study of individual differences in the IS literature, first by introducing the 16 basic desires (Reiss 2004) as a set of individual characteristics that can explain individual motivation behind IS post-adoption related decisions. A second expected contribution to the adoption literature will be to underline the emotional outcome of the interactions between individuals and IT, represented as the result of individual-
IT compatibility, and suggested as an important factor capable of shaping post-adoption use, specifically in the context of social network sites.

The remainder of this paper is organized as follows. First, relevant literature on social network sites is reviewed followed by a discussion on the expected role of individual differences in IS contexts in general, and social network websites in particular. Next, the theory of the 16 basic desires (Reiss 2000) is discussed and linked to the Desirability construct in the context of social network sites. The paper concludes with a discussion of its expected contributions and directions for future research.

**Theoretical Background**

**Social Networks**

The Internet has slowly taken an essential role in our social lives and various social technologies, such as blogs and social network sites (SNS), are now widely used (Gao et al. 2010). SNS have gained vast popularity in the last decade, with sites such as Facebook, LinkedIn, Twitter, Instagram and Google Plus being among the leaders in this domain. SNSs present a venue for information sharing and support multiple forms of communication and interactive features (Hsu et al. 2012). They are defined as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (boyd and Ellison 2007). Deeply integrated in the lives of their users (Patterson 2012) SNS have created new business opportunities for both electronic and traditional companies (Xu et al. 2012). More recently, organizations have even found benefits in creating their own SNS for internal use by their employees (DiMicco et al. 2008).

According to boyd and Ellison (2007), existing SNS research can be classified into four main themes: impression management and friendship performance, networks and network structure, online/offline connections, and privacy issues. While SNS have had significant impacts on organizations and individuals, only a few studies have systematically examined the determinants of SNS usage (Xu et al. 2012). Presently, the IS literature still lacks empirically validated theories in this area (Ryan and Xenos 2011) and researchers still have limited understanding of who is using these sites, let alone the motivation behind their continuous usage (boyd and Ellison 2007). SNSs differ in the business and financial values they create, yet they all rely on their users’ contributions and continuous interactions to be considered successful (Xu et al. 2012). Therefore, it is important to understand why and how individuals use SNS and the motivation behind their decision to continue using a particular SNS versus shifting their time and attention towards another one.

**Individual Differences and the Five Personality Traits**

A reasonable approach to better understanding SNS post-adoption behaviors would be to put their users under the microscope and examine their similarities and differences. The relevance of individual differences to IT related decisions and behaviors is not novel in the IS discipline and has been previously investigated, such as, the effects of individual characteristics on user satisfaction with an IS and ultimately on system effectiveness (Robey 1983). Moreover, well known and highly cited theories have discriminated between innovation adopters (Moore and Benbasat 1991; Rogers 2003) and suggested that adopters as social actors could be distinguished according to their types, i.e., innovators, early adopters, early majority, late majority and laggards, which is likely to influence their speed and rate of innovation adoption. Likewise, individual characteristics such as age, gender and education and their effects on IS-related constructs, have also been frequently examined in IS research (Jasperson et al. 2005).

Personality is also a relevant avenue to examining human behavior, as it is largely responsible for shaping important factors such as individual attitudes, beliefs, emotions and behaviors (Devaraj et al. 2008). More recently, researchers have also suggested integrating individual personality traits into IS models and theories. For example, the five-factor model (FFM) has been suggested as a parsimonious personality-based model capable of uncovering the impact of individual differences on acceptance decisions (Devaraj et al. 2008). The five factors of FFM, i.e., the big five, are thought to be associated with the way individuals interact and maintain their social relationships (Ryan and Xenos 2011) and the model has gained popularity in explaining the adoption of social network sites in general, and Facebook usage in
particular (Moore and McElroy 2012; Ross et al. 2009; Ryan and Xenos 2011). The main premise of FFM is that the personality of individuals can be assessed based on how they rank on five bipolar factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (McCrae and John 1992), which is then thought to influence their adoption decisions. While many personality traits could be investigated, there is an agreement between many personality psychologists that the big five provide a good representation of the general personality domain (Devaraj et al. 2008).

The relevance of each of the FFM factors has been validated and empirically tested across various cultures in different fields (McCrae and John 1992), yet their impact on SNS adoption has been less encouraging. First, IS research has found only two of the five factors (extraversion and conscientiousness) to play significant roles in SNS contexts (Rosen and Kluemper 2008; Ross et al. 2009; Ryan and Xenos 2011; Xu et al. 2012). Second, studies have observed mixed results regarding their effects on IS use. For example, while Wehrli (2008) and Correa et al. (2010) observed a positive relationship between extraversion and social network use, Amichai-Hamburger and Vinitzky (2010) found the relationship to be negative (Moore and McElroy 2012). While several such discrepancies concerning the effect of the five personality factors on SNS use may have been due to self-reported measures or student samples (Ryan and Xenos 2011), the effect of personality traits on SNS usage (in terms of frequency and time spent) is still not very strong. Moreover, though the big five provide a description of individual personalities of SNS adopters, they do not address the motivation behind adoption decisions. In other words, at best, FFM might be able to reveal common personality traits of existing SNS users, but it cannot explain why these individuals decide to be part of a social network site or what is stopping them from leaving it. Further, uncovering the motivation behind SNS users’ continuous use is important as it can provide guidance for improving SNS designs in ways to retain their users. Hence, the present study focuses on individual differences based on human motivations and basic desires (Reiss 2000).

The 16 Basic Desires

Reiss (2000) introduced an empirically tested theory of 16 basic desires (Sensitivity Theory), based on psychometric research and a series of subsequent validations (Reiss 2004). The theory conceptualizes desires as being multifaceted in nature and originating from basic intrinsic motives sought after by individuals for their own sake and as end results. The 16 basic desires are: Power, Curiosity, Independence, Status, Social contact, Vengeance, Honor, Idealism, Physical exercise, Romance, Family, Order, Eating, Acceptance, Tranquility and Saving (Table 1).

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<thead>
<tr>
<th><strong>Table 1. The 16 Basic desires of Reiss (2000)</strong></th>
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<tr>
<td><strong>Power</strong> is the desire to influence others.</td>
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<td><strong>Independence</strong> is the desire for self-reliance.</td>
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<td><strong>Curiosity</strong> is the desire for knowledge.</td>
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<td><strong>Acceptance</strong> is the desire for inclusion.</td>
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<td><strong>Order</strong> is the desire for organization.</td>
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<td><strong>Saving</strong> is the desire to collect things.</td>
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<td><strong>Honor</strong> is the desire to be loyal to one’s parents and heritage.</td>
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<td><strong>Idealism</strong> is the desire for social justice.</td>
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<td><strong>Social Contact</strong> is the desire for companionship.</td>
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<td><strong>Family</strong> is the desire to raise one’s own children.</td>
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<td><strong>Status</strong> is the desire for social standing.</td>
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<td><strong>Vengeance</strong> is the desire to get even.</td>
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<td><strong>Romance</strong> is the desire for sex and beauty.</td>
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<td><strong>Eating</strong> is the desire to consume food.</td>
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<td><strong>Physical Activity</strong> is the desire for exercise of muscles.</td>
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<td><strong>Tranquility</strong> is the desire for emotional calm.</td>
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Reiss 2000). As motives they often affect perceptions, cognitions, emotions and behaviors (Reiss 2000; 2004). Reiss (2004) noted that defining basic desires as reasons should not imply a primarily cognitive process since individuals are not necessarily aware of these motives themselves.

The 16 genetically distinct basic desires lie on top of the behavioral chain (Reiss 2000). In other words, any behavior is executed to satiate one or more end goals or basic desires. Fulfilling one’s basic desire produces an intrinsic feeling of joy, which differs for each of the basic desires (Reiss 2000; 2004). Moreover, individuals behave in such ways as to maximize their intrinsically joyful experiences of the 16 desires. It is noteworthy that even though the 16 basic desires are present in all individuals, each person prioritizes them differently (Reiss 2000; 2004). In other words, individuals are different and will behave differently because of the different weights they assign to each basic desire. That being said, the dominant basic desires capable of explaining any individual’s behavior are generally the ones that are unusually strong or unusually weak compared to existing norms (Reiss 2000). In sum, basic desires operate as catalysts that shape an individual’s attention, cognitions, feelings, and behaviors (Reiss and Havercamp 1996, 1998; Reiss and Wiltz 2004; Reiss 2000, 2004). Thus, individuals focus on stimuli capable of satiating their basic desires, and ignore stimuli that are not aligned with them (Reiss 2004). It is thus expected that if a technology is perceived as being capable of satisfying some or all basic desires of an individual, then it will act as a stimulus capable of altering his/her behavior.

A Desirability Framework

Desirability

IT Desirability has been defined as an individual’s affectively charged passionate-relationship with an IT; it is reflected by an individual’s eagerness to acquire or engage with an IT, as well as the pleasure and/or relief of discomfort doing so provides (Cheikh-Ammar and Barki 2012). Desirability captures the psychological attachment and/or emotional relationship an individual forms with a given IT and is particularly salient in the context of experiential computing (Yoo 2010) and hedonic IT (Van der Heijden 2004). This highly emotional view of the individual/IT interaction has been made possible by the increased ubiquity of IT through its enhanced reliability, accessibility, portability and reach (Lyytinen and Yoo 2002), which smoothed the progress of its intrusion into individuals’ daily lives and facilitated human efforts in new and innovative ways. For instance, social network sites are now diffused among individuals of all ages, accessible on multiple platforms and hold a central position in the lives of many. As such, many now rely on SNS to socialize with their friends, learn about their environment, debate hot topics and share with the world, all of which renders the traditional “task performance” conceptualization of individual/IT interactions insufficient (Al-Natour and Benbasat 2009; Yoo 2010). Users of Facebook, a popular example of desirable technologies, do not continuously appraise this SNS based on its usability or usefulness, but rather continue using it because it is part of their world, and because of their emotional attachment to it (Yoo 2010).

Research Model: From Basic Desires to Desirability

Desirable IT like SNS are typical examples of IT artifacts as social actors (Al-Natour and Benbasat 2009), a perspective we adopt in this paper. According to social response theory (Moon 2000), individuals do not treat certain technologies as mediums or as tools, but rather tend to interact with them as social actors even while being aware that such objects have no feelings or motivations (Nass and Moon 2000). Thus, when evaluating such IT artifacts, users rely heavily on their assessment of the personal interactions they experience with it (Moon 2000; Al-Natour and Benbasat 2009).

This view suggests that the beliefs users form about IT artifacts go beyond a simple evaluation of their features and include the artifact’s social and relational characteristics, as well as the hedonic and social outcomes they experience from their use (Al-Natour and Benbasat 2009). IT as a social actor could be experienced as enclosing a set of human characteristics, and thus people would follow social rules in their interactions with it (Reeves and Nass 1996) such as rules of politeness (Nass et al. 2000), reciprocity (Moon 2000), interdependency (Nass et al. 1997) and evaluation of similarities (Al-Natour et al. 2006), which could even lead people to develop relationships with these technologies (Huang and Lin 2011). According to Smith (1998), and based on similarity-attraction theory (Byrne 1971), social identity theory (Tajfel et al. 1971), and self-categorization theory (Turner 1985), individuals tend to be attracted to, and
sustain relationships with similar others in order to reinforce their self-esteem and maintain balance in their self-identity, which makes their interactions much easier and less cognitively challenging. It then becomes conceivable that after individuals adopt a certain SNS, and based on their interactions, that they could engage in a strong and even passionate relationship with it, as long as they experience compatibilities between themselves and the SNS as two social actors. For example, if an individual has adopted Facebook and feels that his/her dyadic interactions (Al-Natour and Benbasat 2009) are supportive of his/her basic desires, he/she will more likely be attracted to this SNS, feel pleased with his/her interactions and will thus find it more desirable. Figure 1, depicts this relationship, which depicts our research framework.

![Research Framework](image)

**Individual/Technology Fit**

Different definitions and conceptualizations of fit exist in the literature, with each having its own conceptual and empirical meaning and implications (Barki et al. 2001; Drazin and Van de Ven 1985; Venkatraman 1989). According to Venkatraman (1989) six perspectives of fit are possible: moderation, mediation, matching, gestalts, profile deviation and covariation. The six perspectives differ in their measures, verbalization, as well as their degree of specificity regarding the fit relationship.

In the context of this study, the concept of fit represents the match between an individual’s basic desires and an IT's perceived attributes. This perspective of fit defined as a match or congruence between two independent constructs has been extensively studied in organizational behavior, such as person/environment fit (P-E fit) or environmental demand/employee ability fit (D-A fit) (Edwards 1994, 1996). Following a similar line of reasoning, we conceptualize the fit construct as a match reflecting the compatibility between social partners, a well-established principle in psychology (Reiss 2000). The main assumption of this principle is that like-minded people are attracted to each other while opposites repel. Hence two social actors are more likely to bond if compatibility exists between their respective desire profiles. This suggests that the profile deviation perspective of fit (Venkatraman 1989) would be appropriate for operationalizing the notion of overall fit between an individual’s 16 basic desires and the perceived capability of an SNS to satisfy each of them.

Further, while it may be difficult to match two social actors on all of the 16 basic desires, for a relationship to be maintained, it is critical to focus on the most dominant desires and to see how strongly they complement each other (Reiss 2000). Thus, we expect that individuals will tend to find a given SNS undesirable, rarely use it, or even discontinue its usage, if they experience meaningful incompatibilities with it, on one or more of their highest ranked basic desires. This then suggests that examining each of the 16 factors and their fit with the individual's desire can be revealing.

While fit has been studied in IS research, it has essentially been examined in terms of a sought after or favorable match between organizational tasks and the capability of an IT to assist in their accomplishment. In the present study, we are extending this conceptualization further by incorporating the match between an individual’s basic desires and a specific technology (SNS). Accordingly, we conceptualize the
individual/technology fit construct as the compatibility between an individual and an SNS as two social actors. While a suitable task/technology fit is expected to result in higher performance from individuals or groups (Zigurs and Buckland 1998), an individual/technology fit is also expected to result in a stronger emotional relationship between the social actors. Thus, after several rounds of interactions with an SNS, an individual will form dyadic beliefs (Al-Natour and Benbasat 2009) concerning the capability of the SNS to cater to the basic desires he/she needs to satisfy the most, which will then influence the desirability of the SNS. This leads to our main hypothesis depicted in Figure 1: The overall fit between the basic desires of individuals and their perceived capability of an SNS to satiate these basic desires will affect their SNS Desirability. More specifically, the overall fit between each of the 16 desires, and the perceptions individuals’ form related to the capability of an SNS to satisfy this specific desire (i.e., profile deviation fit), will shape their SNS's desirability. Thus:

**H1- The fit between individuals’ basic desires and the perceived capability of an SNS to satiate these desires will positively affect SNS Desirability.**

It is thus, expected that the closer an individual’s desires are to an SNS’s perceived desire satiating capability, the higher will be their experienced SNS desirability. This relationship between the 16 basic desires and individual perceptions in the context of SNS continuous-use is depicted in the research model of Figure 2. To better illustrate this relation the next paragraph discusses two basic desires, Power and Curiosity and examines their impact on SNS desirability.

![Research Model](image)

**Figure 2. Research Model**

**Power** is a basic desire for influence that most people aspire for, at least at a certain amount (Reiss 2000). It is the desire to impose one’s will on others or on the environment, which is also considered as the motivation to pursue excellence and glory. The idea of an IT artifact providing its users with some sort of power is not new in the IS literature (Jasperson et al. 2005). IS researchers have frequently cited shifts in power as a central motivation behind resistance to newly introduced systems (Lapointe and Rivard 2005), where users tend to be inclined to use an IS when they believe it supports their power position, but resist it when it does not (Gray 2001; Markus 1983). SNS are ideal venues for power seeking individuals, as they provide a stage for influencing not only friends and followers, but also groups and organizations. SNS have permitted individuals to rise to power and, to some extent, get rid of high level employees in marketing and public relations by creating communities, sharing, tweeting and adding Facebook entries.
(Kietzmann et al. 2011). Thus, individuals who have a strong desire for power can enhance their reputation and increase their perceived authority in a community (Bateman et al. 2011) via SNS use, which will also affect their level of commitment to the online community. However, not all individuals value power in like fashion or rank it highly among their desires (Reiss and Havercamp 1996, 1998; Reiss and Wiltz 2004; Reiss 2000, 2004). Hence, the mere fact that an SNS is perceived as having power potential will not necessarily make it desirable for everyone. Rather, it is the match between the perceived power capability of the SNS and the strength of an individual’s basic desire for power that will influence the level of SNS desirability.

Another example is **Curiosity**, which is the desire for knowledge, and one of the great joys of life according to Reiss (2000). It is the desire to learn for the sake of learning and manifests itself in reading, writing, thinking and exploring. Curiosity is also not new to the IS literature where it has been linked to the status of flow in individual/IT interactions (Beaudry and Pinsonneault 2010; Webster and Martocchio 1995) and conceptualized as one of the five dimensions of cognitive absorption (Agarwal and Karahanna 2000). Curiosity is related to individuals’ openness to new experiences, as well as their willingness to explore new ideas (Moore and McElroy 2012), and has been previously linked to Internet use (McElroy et al. 2007), blogging (Guadagno et al. 2008) and general social media use (Correa et al. 2010). An important feature of intrinsically motivating environments, such as the Internet and SNS, is the degree to which they can continuously arouse and satisfy individuals’ curiosity (Malone 1981). Yet again, not all individuals value general knowledge similarly, and not all of them rank curiosity satiation equally highly (Reiss and Havercamp 1996, 1998; Reiss and Wiltz 2004; Reiss 2000, 2004). Thus, people are more likely to engage in an emotional relationship with an SNS when they experience a fit between its capability of satisfying their curiosity desire and the strength of their own curiosity. The desirability of an SNS is then affected by the congruence between the curiosity of individual users and their perceptions of the capability of the SNS to satisfy it.

Overall, individuals are more likely to experience an SNS as desirable when they perceive it as capable of answering several of their highly sought after desires. Hence, an individual’s SNS desirability is thus likely to be formed by the distance that exists between his/her profiles of desires and perceived SNS desire satiating capabilities. The theory of 16 basic desires suggests that individuals aspire for a point of moderation in their desires, labeled a sensitivity or set point (Reiss 2004). That is, most individuals will aim for a moderate degree of power, status, knowledge, and so on. What motivates them is the discrepancy (or misfit) between the amount of a desired intrinsic satisfier and the amount that was recently experienced (Reiss 2000, 2004). Further, any lack of fit between the two social actors is also likely to have some negative influence on SNS desirability, regardless of the direction of a misfit. Moreover, while any misfit in basic desire satiation is expected to negatively influence experienced desirability, it is expected that the effect of a less satisfied desire will be more important once compared to a desire to which the SNS caters for in abundance. An unsatisfied basic desire will motivate individuals to seek other alternatives to satisfy their urges (Reiss 2000, 2004), reducing desirability in the process, while the excess in supply will not. Thus:

**H2a**- A misfit between each basic desire and its related perceived capability, will have a negative influence on SNS Desirability, regardless of whether the misfit is positive (desired level > experienced level) or negative (desired level < experienced level).

**H2b**- A positive misfit will have a stronger negative effect on desirability than a negative misfit.

SNS, just like any desirable object, invade the thoughts of their users and impel in them feelings of expected pleasure and relief of discomfort (Kavanagh et al. 2005, 2009; Patterson 2012). In other words, individuals who have adopted an SNS and have experienced it as a “desirable IT”, are likely to have intruding pleasurable thoughts related to it, making its usage resonate positively in their minds. These feelings can also lead to compulsive usage (Herschlag and Zwick 2000) or interaction decisions without any predetermined task in mind (Fitzgerald 2012). Moreover, separation from a desirable SNS can induce feelings of discomfort, which are expected to fade away once an interaction occurs (Kavanagh et al. 2009). Desirability of an SNS, as noted above, is likely to be experienced differently by different individuals, yet the more intense the desirability of an SNS, the more likely that individuals will have intruding thoughts and urges to interact with it, which will in turn influence their continuous-use behavior. Thus:

**H3**- SNS Desirability will positively influence SNS continuous-use.
Method

An SNS perceived as capable of answering to some or all of the basic desires of individuals is expected to positively influence their SNS desirability and ultimately their continuous use. To examine this research model (Figure 2), an online questionnaire survey will be conducted. The survey will be administered to current Facebook, Twitter and Google+ users who have had an active profile for at least a year, regardless of their activity level, with the aim of discriminating between frequent and low levels of usage based on experienced desirability. Even though SNSs have some comparable capabilities, users might assess them differently. Thus, differentiating, between popular SNSs based on their perceived capabilities to satisfy basic desires might reveal additional and potentially interesting emerging findings. We are currently in the process of developing a measure for the construct of SNS desirability that will be used in this study.

To assess the overall fit between individual’s desires and the perceived capability of an SNS to satisfy them, a distance score will be calculated. It is expected that the shorter the distance between the two constructs, the higher the individuals’ SNS desirability will be, which in turn will positively influence their SNS continuous-use. Thus, to investigate H1, the profile deviation fit between each of the 16 basic desires and the individual’s perceived satiation capability of the IT will be calculated as a Euclidean distance, i.e., Fit = \sqrt{\sum_{i=1}^{16}(di - pi)^2}, where di is basic desire i and pi is the perceived capability of the SNS to satiate desire i.

While some of the basic desires might appear less relevant in the context of SNS, it will be difficult to theoretically justify removing any of them. As noted above, the 16 basic desires exist in all individuals, yet only the strongest are likely to influence their behaviors. Some of them, such as the desire to eat or exercise, may at first glance appear to be irrelevant in IT contexts. However, it possible that some individuals may find some SNS to be highly desirable for reasons related to eating, such as enabling them to find restaurants, specialty foods etc., or related to exercising such as identifying suitable gyms, exercise routines etc., and meet with other people interested in food or exercise. Thus, we believe that all basic desires are likely to be relevant in a population and that discarding any of them a priori is not justified.

To assess H2, a three-step approach will be applied. First, the absolute value of the distance between each basic desire and the associated perceived SNS capability will be calculated (ABS (di – pi)). Second, the correlations between the 16 individual distance scores and SNS desirability will be calculated and the desires associated with the significant correlations will be retained for further analysis. This step will help reduce the number of desires into a more manageable set, based on empirical evidence. The individual factor or component fit between the remaining desires and their corresponding SNS capabilities will then be assessed via polynomial modeling coupled with response surface analysis, two well established methods in the organizational behavior literature (Edwards 1994, 1996) and previously examined in IS (Klein et al. 2009; Titah and Barki, 2009; Venkatesh and Goyal 2010). Polynomial modeling provides a means to examine the complex relationship between component measures and Desirability using curvilinear terms (Venkatesh and Goyal 2010). Moreover, the response surface methodology offers a set of visual and statistical tests that when coupled with polynomial modeling would relax the constraints imposed by direct fit measures and include higher-order terms representing inflections and curvatures (Edwards 2001). We hope that the examinations of the component measures will provide a more precise picture of the fit relationship than the overall fit scores calculated via the profile deviation approach.

Conclusion and Contributions

The present manuscript suggests an alternative explanation for the traditional, performance based, task/technology fit view of SNS continuous-use, which has been criticized as being less appropriate in the context of hedonic technologies immersed in individuals’ everyday life (Al-Natour and Benbasat 2009; Yoo 2010). This paper suggests that SNS users, after a series of interactions with an SNS, will develop emotional relationships with these technologies, if they experience them as compatible with their basic desires, which will in turn influence their continuous-use decisions. We expect this study to make two key contributions. The first is to further develop the non-rational perspective of post-adoption behavior beyond notions of task performance by answering the call for IS research to examine “unplanned and unreasoned action” based on the direct impact of emotions on post-adoption use (Ortiz de Guinea and Markus 2009). The second contribution is to highlight the relevance of the 16 basic desires as a new research avenue capable of explaining IS-related behaviors based on individuals’ internal motivations.
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