Journal of the Association for Information Systems (2021) 22(**4**), 1037-1075
doi: 10.17705/1jais.00688

RESEARCH ARTICLE

ISSN 1536-9323

Social Networking Site Use Resumption: A Model of Return Migration

Christian Maier[1], Sven Laumer[2], Jason Bennett Thatcher[3], Heshan Sun[4], Christoph Weinert[5], Tim Weitzel[6]

[1]Corresponding author, University of Bamberg, Germany, christian.maier@uni-bamberg.de
[2]Friedrich-Alexander Universität Erlangen-Nürnberg, Germany, sven.laumer@fau.de
[3]Temple University, USA, jason.thatcher@temple.edu
[4]Price College of Business, University of Oklahoma, USA, sunh@ou.edu
[5]University of Bamberg, Germany, christoph.weinert@uni-bamberg.de
[6]University of Bamberg, Germany, tim.weitzel@uni-bamberg.de

Abstract

This research explains why individuals resume using social networking sites (SNSs) after terminating their use. Drawing on return migration theory, we developed a theory-driven model of SNS resumption that includes two novel antecedents of SNS resumption behavior: *nonuse-related dissatisfaction* and *use-related satisfaction*. We also hypothesize that dispositional resistance to change moderates the impact of nonuse-related dissatisfaction and use-related satisfaction on resumption. We used a mixed methods approach to refine and evaluate the research model. Study 1 used the critical incident method to identify SNS-specific antecedents of nonuse-related satisfaction and use-related satisfaction, allowing us to refine the research model. Study 2 used structural equation modeling to evaluate our research model using two three-wave surveys: one with recent ex-users who recently decided to stop using and delete their profiles on Facebook and one with long-standing ex-users who stopped using and deleted their profiles on Facebook a long time ago. We found support for most relationships in our model: nonuse-related dissatisfaction and use-related satisfaction drive resumption intentions, and dispositional resistance moderates these relationships. Furthermore, we found that the time elapsed since users discontinued Facebook moderated these relationships such that the effect of nonuse-related dissatisfaction on resumption intention is stronger for recent ex-users and the effect of use-related satisfaction is stronger for long-standing ex-users. Our findings advance the understanding of resumption, an understudied behavior of the IT lifecycle and IT use and acceptance research.

Keywords: Resumption, Mixed Methods Studies, Three-Wave Empirical Study, Social Networking Sites, Facebook, IT Lifecycle, Postadoption

Jens Dibbern was the accepting senior editor. This research article was submitted on August 17, 2017 and underwent three revisions.

1 Introduction

Social networking sites (SNSs) constitute a social technology that engages users by offering a simple technological frame to enable the satisfaction of individuals' social needs (Tarafdar et al., 2020). While SNSs continue to draw users, there are hints that all is not well in the SNS domain. Indeed, recent history is replete with SNSs that failed financially or failed to grow. For example, Friendster, one of the earliest SNSs, reported 115 million users in 2011, only to quietly shut its doors to users in 2015. MySpace, which was "once the king of the Internet" (TechCrunch 2011), has been

eclipsed by Facebook. Even popular SNSs are encountering declining numbers of users. For example, Facebook, the largest and most globally dispersed SNS, has experienced declining activity among registered users in its most lucrative markets (Keach 2018), recently losing more than 2.8 million US users under 25. Analysts predict continued decline in the future (Wagner & Molla, 2018). Similarly, LinkedIn suffers from low use rates, with only 50% of its 500 million registered users active on the platform monthly (Aslam, 2018). Since SNS business models depend on active users, such declining use creates concerns about the long-term viability of specific SNSs and leads to potential losses in shareholder value (Shaban, 2018).

A plausible explanation for the declining number of users is that individuals migrate across SNSs. Evidence abounds that young users migrate across SNSs (eMarketer, 2018). Young Facebook users have flocked to Instagram, Snapchat, and TikTok, resulting in Facebook acquiring Instagram, offering to purchase Snapchat, and adding new functionality to the platform to better satisfy individuals' social needs (Bary 2017). Explanations for such movement include new platforms offering more robust communities that better meet individuals' social needs or offer a richer set of technological features (Maier et al., 2015a; Morrison & Gomez, 2014).

While explanations for migration to new SNSs exist, academic literature offers scant insight into why some SNS users *migrate back* to a previously used SNS platform, i.e., resumption of SNS use. Extant studies have investigated why users join an SNS (Hu et al., 2011), continue using it (e.g., because of perceptions of switching costs; Carter et al., 2014), and discontinue using it (Maier et al., 2015a). Prior research generally considers discontinuation as an end state of the user-SNS relationship. However, evidence suggests that even when some SNS users delete their accounts, they may later return by re-registering and resuming use of the SNS (Harmon, 2015; Morrison & Gomez, 2014). Nostalgia for the abandoned virtual community is a plausible explanation for such resumption of SNS use by ex-users (Gómez, 1998). An ex-user may miss social connections found on the previously used SNS platform or want to regain access to ideas and thoughts expressed by community members (Emami, 2017). Such returning SNS users are particularly desirable to platforms (Frier, 2018) because they possess intimate knowledge of the platform, strengthen existing social networks on the platform, and affirm to existing users the value of participating on the platform vis-à-vis a newer rival platform. Therefore, we aim to understand the following research question:

RQ: What factors drive ex-users to resume use of an SNS platform that they previously used and discontinued?

To approach this question, we develop a model of SNS resumption that integrates the characteristics of social technologies and personality traits that guide SNS resumption. The model is based on return migration theory, which was originally developed to explain how social embeddedness in a city in which one previously lived draws individuals to go back to that city (Gmelch, 1980; King, 2015; Zhao, 2002). Return migration theory suggests that push, pull, and mooring factors encourage the movement of people across communities and thus offers a tool that can be used to glean insight into why ex-users return to an SNS. We view SNS platforms as similar to physical neighborhoods that have social ties and amenities capable of drawing departed community members back to a familiar place. Specifically, we seek to explain how user resumption of an SNS is driven by social and technological factors tied to prior and current SNS use experience (e.g., rival platforms) and demonstrate how these elements shape individual SNS resumption. Return migration theory helps to explain how satisfaction with past SNS experience and dissatisfaction with no longer using the SNS leads to resumption of SNS use. We draw upon information systems literature (Hong et al., 2014; Te'eni, 2017) and that of related disciplines (Johns 2006) to contextualize return migration theory to the SNS context.

Our research contributes to the literature in several ways. First, it illuminates and extends the current understanding of the lifecycle of SNS use by integrating resumption as a distinct postadoption behavior (Maier, 2020; Maier et al., 2015b). The existing SNS literature has studied the adoption, continued use, and discontinuance of SNS platforms. Resumption behavior, however, has received little if any attention. Our research addresses this gap by explicitly studying SNS resumption behavior. Second, our research systematically develops a new model of SNS resumption based on return migration theory through analyses that reveal that nonuse-related dissatisfaction (a push factor) and use-related satisfaction (a pull factor) shape resumption intentions. This research also illustrates how dispositional resistance to change, a mooring factor, exerts an influence on resumption indirectly, through moderating the impact of nonuse-related dissatisfaction and use-related satisfaction on SNS resumption. Third, we contextualize our model to the SNS context and specify that communication underload, information underload, replacement overload, social isolation, and boredom shape nonuse-related dissatisfaction. Fourth, we provide evidence of the generalizability and boundary conditions of this model through results that demonstrate consistency across samples of recent and long-standing ex-users. These contributions strengthen the understanding of how individuals use IS and offer new directions for future research.

2 Theoretical Background and Model Development

In this section, we develop a contextualized model of SNS resumption, drawing on return migration theory (Gmelch, 1980; King, 2015; Zhao, 2002). Our application of return migration theory suggests that physical remigration to a location in which one previously lived is analogical to resuming use of an SNS. In both situations, individuals have specific and actual knowledge about the abandoned location, be it a geographical location or a virtual SNS location. Such knowledge, together with the status quo, helps shape return migration decisions.

2.1 Return Migration Theory

Return migration theory is an adaption of migration theory. Original *migration theory* was developed to explain why people move across geographical locations. Lee (1966) effectively summarized the central tenets of migration theory: individuals migrate when they are attracted by a new location (pull factors) and/or repelled by a current location (push factors) but not constrained by intervening obstacles (mooring factors). Migration typically refers to long-term or permanent physical relocation (Lee, 1966) and has been used to explain several phenomena in the general migration context (Stimson & Minnery, 1998). Later, migration theory was generalized to explain different phenomena—for example, consumer switching behavior generally (Nimako & Winneba, 2013) and between brands (Ghasrodashti, 2018); traveler switching behavior in the airline (Jung et al., 2017) and hotel industry (Lehto et al., 2015); consumer switching in multichannel services (Chiu et al., 2011) and banking (Gerrard & Cunningham, 2004); and employee commitment to employers (Fu, 2011) and job switching intentions (Haldorai et al., 2019).

In the IS context, migration theory has been used to explain end users moving to the cloud (Bhattacherjee & Park, 2013; Wu et al., 2017), switching between online games (Hou et al., 2011) or browsers (Yu et al., 2017), switching in the mobile shopping context (Lai et al., 2012), switching between blogs (Zhang et al., 2012) or instant messaging platforms (Sun et al., 2017), and switching between SNSs, e.g., from Facebook to Instagram (Chang et al., 2014; Xu et al., 2014). Consistent with migration theory, IS findings on SNS migration indicate that users migrate when they are dissatisfied with their current SNS and attracted by an alternative (Hwang et al., 2019; Xu et al., 2014). As in the geographical migration context, switching costs may limit SNS switching (Chang et al., 2014).

The original migration theory was later adapted to study return migration. The adapted *return migration theory* extends migration theory and explains how pull, push, and mooring factors influence people's return decisions (Gmelch, 1980; King, 2015; Zhao, 2002). Table 1 summarizes the differences between the original migration theory and return migration theory. While the original migration theory emphasizes people's migration from an original location to a new location, return migration focuses on a person's return to an origin location, where the person previously lived, from the current location. In the context of return migration, pull factors attract individuals to return to their origin locations; push factors drive individuals to leave their current locations; mooring factors constrain return migration. Specifically, research posits that satisfaction with the origin location (a pull factor) and dissatisfaction with the current location (a push factor) influence return migration (Jong & Fawcett, 1981; Speare et al., 1982). Moreover, personality traits constitute mooring factors that influence return migration decisions (Jokela, 2009; Tabor et al., 2015). Temporality also constitutes an important factor in return migration, with pull factors (e.g., satisfaction with the originating location) being grounded in the past and push factors (e.g., dissatisfaction with the current location) being grounded in the present (Dustmann & Weiss, 2007; Lee, 1966; Zhao, 2002). Hence, both satisfaction with the past and dissatisfaction with the present are assessed simultaneously when individuals consider return migration.

Return migration theory has been used to explain why people move back to origin locations—for example, which can take the form, for example, when immigrants returning to their country of origin, individuals move back to a hometown, or individuals move from a city back to a rural area (Cieslik, 2011; Lu et al., 2009).

2.2 Return Migration in SNS Contexts

Similar to migration theory, which is useful to explain the virtual migration from one virtual neighborhood to another (Xu et al., 2014), we argue that return migration theory is useful for explaining virtual return migration, i.e., when individuals return to virtual social neighborhoods in which they previously "lived" (see Table 2). Applying return migration theory allows for the consideration of not only past experience with an SNS but also current experience with no longer using the SNS. It also underscores the importance of considering mooring factors, e.g., dispositional resistance to change, when seeking to understand why users form the intention to resume SNS use.

To contextualize return migration theory, we followed Hong et al.'s (2014) recommended guidelines; we began with general return migration theory, refined it to fit the SNS context, identified and model SNS-specific beliefs (Ajzen & Fishbein, 1980), examined the interplays between those perceptions and beliefs, and looked at alternative models (see Table 3). This allowed us to develop a contextualized model that depicts the sociotechnological experience of SNS resumption, which includes push and/or pull factors closely tied to the specific technological and social elements of SNSs.

Table 1. Return Migration Theory as an Adaptation of Migration Theory

Characteristics	Migration theory	Return migration theory
Explanation	Why individuals move to a place that they have not lived in before	Why individuals move back to a place they have lived in before
Temporality	Current experience and expectations for the future.	Satisfaction with the past, dissatisfaction with the current location, and expectations for the future in the old location all play a role.
Locations relevant for the decision	... the current location ... the unknown target location	... the current location ... the target location, which the person knows from prior experience living there
Actual knowledge	... about the current location in which the person is living	... about the current location in which the person is living ... about the target location because the person lived there before
Expectations	... about the target location	... about the location the person is returning to

Table 2. Summarizing Pull, Push, and Mooring Factors

Type of factors	Original understanding based on Lee (1966)	Definition in the context of SNS resumption
Push factor	Negative factors at the current location that encourage people to migrate back to the origin destination	Negative factors related to the situation of no longer using the SNS and the possibilities of socializing with others that drive ex-users to resume using the SNS
Pull factor	Positive factors at the origin destination that attract people to migrate back to it	Positive factors related to the previously used SNS such as perceptions about the technological and social characteristics of the SNS, which convince ex-users to resume using it
Mooring factor	"Intervening obstacles" constraining the migration	Intervening obstacles that constrain ex-users' use resumption of the SNS

Table 3. Research Approach to Contextualizing Return Migration Theory to SNS Resumption

First guideline ("Grounded in a general theory")	A general theory, return migration theory (Gmelch, 1980; King, 2015; Zhao, 2002), guides our research. It explains why individuals who left their home country decide to migrate back home again from an individual perspective. In short, research indicates that migration is often temporary and that previous investments and social ties increase return intentions. We adapt return migration theory to the sociotechnical context of SNS use. This provides us with the possibility of studying why an ex-user of the SNS Facebook resumes using the SNS. **We define SNS resumption as an individual's behavior of resuming use of an SNS after voluntarily and consciously deciding to discontinue its use.** The conscious decision is, for example, reflected in closing and deleting one's Facebook account. This distinguishes resumption behavior from temporal discontinuation, e.g., when a user stops using Facebook for a period of time without planning to permanently leave Facebook.
Second guideline ("Contextualizing and refining a general theory")	In line with research using migration theory in IS research (Bhattacherjee & Lin, 2015), we argue that resumption behavior—in contrast to return migration—requires less effort in the SNS context. While returning users need to become reacquainted with the SNS platform, refamiliarize themselves with the platform's rules and norms, and catch up with new features and interfaces, we do not consider switching costs or efforts to be a significant burden and, as such, do not account for them in our research model. Moreover, we adapt general return migration theory in the SNS context. Specifically, we theorize factors pushing ex-users away from nonuse status, factors pulling ex-users to resume use, and mooring factors restricting SNS resumption. Since resumption behavior implies that ex-users are attached to using and no longer using the SNS, respectively, we consider nonuse-related dissatisfaction and use-related satisfaction to be major push and pull factors influencing SNS resumption.

Third guideline ("Thorough evaluation of the context to identify context-specific factors")	We conducted a qualitative study (Study 1) with 41 ex-users to understand SNS-specific beliefs that form nonuse-related dissatisfaction and use-related satisfaction. This step was needed because previous research has not identified beliefs influencing nonuse-related dissatisfaction.
Fourth guideline ("Modeling context-specific factors")	We propose direct effects of the identified SNS-related beliefs on nonuse-related dissatisfaction and use-related satisfaction, which both influence SNS resumption intention. We performed a quantitative analysis (Study 2) consisting of two samples. For each sample, we set up a longitudinal study with three surveys to investigate how identified beliefs, as well as pull, push, and mooring factors, influence resumption intention and behavior. In all, 299 individuals that were distinct from the 41 participants of Study 1participated in Study 2 in two different samples (recent ex-users: 118; long-standing ex-users: 181).
Fifth guideline ("Examination of the interplay between the technology artifact and other factors")	We acknowledge that mooring factors are related to personality traits (e.g., dispositional resistance to change), which moderate how nonuse-related dissatisfaction versus use-related satisfaction translate into SNS resumption. Beyond this, we also propose that there are different relative influences of nonuse-related dissatisfaction versus use-related satisfaction on SNS resumption for recent and long-standing ex-users. Recent ex-users are individuals who recently discontinued using Facebook, while long-standing ex-users are individuals who stopped using Facebook over six months prior to data collection.
Sixth guideline ("Examination of Alternative Context-Specific Models")	We include control variables germane to SNS resumption and conduct mediation analysis to explore how different, context-specific models shape SNS resumption.

When contextualized to SNSs, return migration focuses attention on why SNS users go back to a familiar virtual neighborhood. We define SNS resumption as an individual's behavior of resuming use of an SNS after voluntarily and consciously deciding to discontinue its use. Studying SNS resumption helps explain why an ex-user who previously discontinued using an SNS platform might choose to resume use of the SNS. It is worth noting that to be an ex-user, an individual must consciously *decide* to no longer use an SNS platform, e.g., by deleting their account. This nuance distinguishes an ex-user from occasional users (i.e., those who may rarely use an SNS but still psychologically consider themselves to be users). From the perspective of a specific SNS—Facebook, for our purposes—this implies that there are two different types of ex-users: quitters and switchers. Quitters refer to individuals who had a Facebook account and then decided to delete their account without using an alternative SNS. Switchers refer to individuals who delete their Facebook account and switch to using an alternative SNS such as Instagram. We consider resumption behavior (i.e, future resumption of Facebook use) as a possibility for both types of ex-users.

SNS resumption is analogous to returning to a physical location, in that both require a person to reverse a previous migration decision. In both cases, individuals are likely to have bonds (e.g., social connections) and prior experience with the previous situation (e.g., experience with a location or an SNS platform). In the case of return migration, an individual leaves a location and explores an alternative location or locations before migrating back to the original location. Analogously, concerning SNS resumption, an individual discontinues using an SNS and may have explored alternative SNSs or other ways of interacting with others before resuming use of the original SNS.

2.3 Resumption: A New Type of SNS Behavior

SNS resumption behavior is distinct from well-studied adoption, continuance, and discontinuance behaviors in two important ways. First, resumption research focuses on ex-users, whereas adoption research focuses on nonusers (or potential users), explaining why individuals who have never used a system are willing to begin using it. Adoption research examines adopters' expectations about the outcomes of SNS use based on little or no direct knowledge of the consequences of use (Hu et al., 2011; Lampe et al., 2013). For example, research demonstrates that adopters' perceptions about using SNSs differ from nonadopters' expectations about SNS use in terms of hedonic outcomes, utilitarian outcomes, subjective norms, perceived ease of use, and fear of IT (Maier et al., 2011). In contrast, resumption focuses on ex-users, who are not using the system but have previous experience using the system, such that their resumption decisions are not only based on expectations, as in the

case of adopters, but also on experiences and direct knowledge of the consequences of use derived from prior use behavior.

Second, SNS use and discontinuation research focuses on why existing users continue or discontinue using an SNS. On the one hand, SNS usage research has studied why users continue use of an SNS. For example, research has shown that user satisfaction shapes continuance intentions with using an SNS (Basak & Calisir, 2015; Hu & Kettinger, 2008), which in turn is influenced by users' perceived usefulness and enjoyment of using it (Gerow et al., 2017; Maier et al., 2012a). On the other hand, SNS discontinuation research studies the implications of behavior change (i.e., becoming an ex-user). However, unlike adoption research, it assumes that users base their decisions on present knowledge regarding the future challenges and benefits of abandoning a technology (Maier, 2020). While existing discontinuation research has studied *quitters* and *switchers*, our study focuses on *resumers*.

The above discussion implies a need for developing a new theoretical perspective to distinguish resumption vis-à-vis other use behaviors. Unlike the prior research on SNS adoption, continuance, and discontinuation, research on resumption behavior focuses on ex-users and requires an understanding of how ex-users integrate both knowledge of past use and assessments of future benefits to make resumption decisions. Therefore, the resumption context references a different set of knowledge and expectations than that held by other types of users, such as nonusers or actual users. Moreover, temporality can further distinguish among ex-users: *recent ex-users* who recently discontinued the use of an SNS and *long-standing ex-users* who discontinued using an SNS a relatively long time ago (i.e., six months ago). While recent ex-users tend to be more acutely aware of the implications of nonuse (e.g., missing friends, information feeds, and so on), long-standing ex-users may be more focused on memories of their SNS use experience.

One could argue that switching theories, which are part of discontinuation research, could explain resumption, because they account for a behavioral change—for example, changing from using Facebook to using Instagram. However, while switching theories focus on user comparisons between the "old" technology (e.g., Facebook) and the "new" technology (e.g., Instagram) (Polites & Karahanna, 2012), resumption is about "switching back" to a technology with which a user already has prior experience (e.g., Facebook).

In summary, resumption behavior represents a new type of system use behavior because it is performed by ex-users who are aware of the consequences of resumption, based on their prior experience with using a technology (i.e., an SNS) as well as their current experience with not using the technology or using alternative technologies. Return migration theory, with its focus on push, pull, and mooring factors associated with previous and current situations, is well-suited toward explaining this interplay between prior and current beliefs about technological factors that shape resumption.

3 Research Model and Hypotheses on SNS Resumption

Our research model of SNS resumption (see Figure 1) draws on return migration theory to predict SNS resumption intention and behavior. We define SNS resumption intention as an ex-user's conscious behavioral intention to use an SNS again after having discontinued using it. Social psychology-based IS research (e.g., Bhattacherjee and Lin 2015; Venkatesh et al., 2003) and SNS research (Maier et al., 2015b) suggest that rationally formed behavioral intention influences behavior. This logic has been well studied in many IT contexts and should hold true for return SNS migration contexts. Hence, we propose that ex-users will resume using an SNS when they have intentions towards resuming use:

H1: Ex-users' intentions to resume using an SNS positively influence their resumption behaviors.

Given that return migration theory implies that ex-users' intentions to resume SNS use will be driven by push, pull, and mooring factors, our research model contextualizes push, pull, and mooring factors in the SNS context.

Push factors. In return migration theory, push factors are defined as the factors that repel individuals, thus driving them to leave the current location. In the SNS context, push factors are defined as the negative, adverse factors related to the nonuse situation that push individuals away from the nonuse of the SNS back toward resuming SNS use. We argue that nonuse-related dissatisfaction, defined as an ex-user's affective response reflecting the ex-user's overall negative evaluation of not currently using a specific SNS, is a push factor. Prior research has shown the significant effects of dissatisfaction on behavioral change (Maier et al., 2015b). Individuals typically avoid negative experiences and will make proactive behavioral changes to avoid negative experiences (Stein et al., 2015). For example, an ex-user of Facebook may become dissatisfied with not using it because it is difficult to maintain all social relationships when no longer using Facebook. As a result, that ex-user may form an intention to return to Facebook.

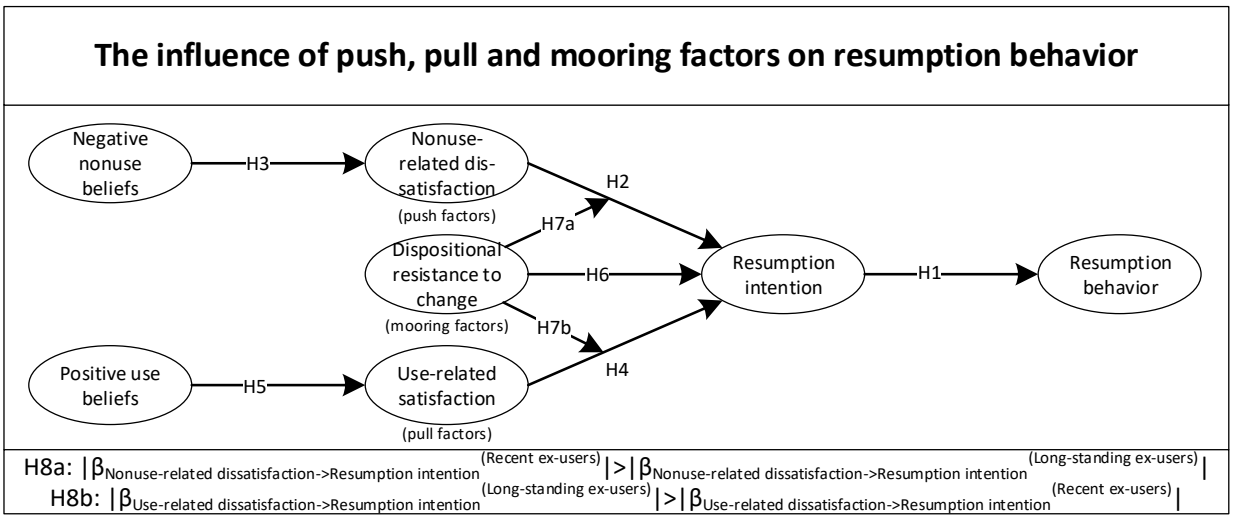


Figure 1. Research Model of SNS Resumption

Similarly, Facebook ex-users who switch to Instagram, may become dissatisfied after realizing that many of their friends do not use Instagram, and this dissatisfaction may cause them to develop resumption intentions. Thus, the presence of nonuse-related dissatisfaction will motivate ex-users of an SNS to consider resumption, thereby avoiding or diminishing negative effects associated with not using this particular SNS. Thus, we hypothesize:

H2: Ex-users' nonuse-related dissatisfaction positively influence their resumption intentions.

We argue that nonuse-related dissatisfaction is grounded in nonuse-related user beliefs. Research has suggested that dissatisfaction is often a result of individuals' negative beliefs (Tarafdar et al., 2010). For example, it is argued that when individuals appraise an IT event as a threat and perceive a lack of control over potential consequences, dissatisfaction is a possible negative emotion that may arise (Beaudry & Pinsonneault, 2005). In the technostress context, it has been shown that technostressors lead to low end user satisfaction (Tarafdar et al., 2010). This suggests that ex-users' negative beliefs about not using an SNS will likely lead to nonuse-related dissatisfaction. For example, if ex-users feel isolated or bored because of the absence of an SNS in their lives, they will be more likely to feel dissatisfied with the current state of not using the SNS. Thus, we hypothesize:

H3: Ex-users' negative beliefs about not using an SNS positively influences their nonuse-related dissatisfaction.

Pull factors. In return migration theory, pull factors are factors that motivate people to remigrate to their origin location. In the SNS context, pull factors refer to positive factors associated with the use of an SNS that motivate individuals to resume use of the SNS. These positive factors stem from individuals' satisfaction associated with prior SNS use (Maier et al., 2012b). We define this use-related satisfaction as an ex-user's present affective response reflecting the ex-user's overall positive evaluation of past use of the SNS, based on the general definition of satisfaction (Oliver & Westbrook, 1982). Research indicates that such distal recollections of satisfaction associated with outcomes of previous behavior can be stored in a person's long-term memory and can be retrieved later to shape recalled use satisfaction and predict future behavior (Collopy, 1996). These distal evaluations are relevant to individuals' resumption intentions because they can be retrieved from an individual's long-term memory (Myers, 2004; Thompson & Kim, 1996) even when the SNS is no longer used. The positive relationship between satisfaction and behavioral intention has been well established in the IS literature (Wixom and Todd 2005). Hence, we hypothesize that ex-users are more likely to resume using an SNS when the level of use-related satisfaction is high. In contrast, ex-users who evaluate the prior use of an SNS as less satisfactory are less likely to develop an intention to resume using it. Thus, we hypothesize:

H4: Ex-users' use-related satisfaction positively influences their resumption intentions.

Prior IS research has investigated how various user beliefs such as information quality, system quality (Wixom & Todd, 2005), disconfirmation of previous expectations, and perceived usefulness can lead to satisfaction. In SNS research, research suggests that positive beliefs lead to satisfaction (e.g., Maier et al., 2012a; Xu et al., 2014). It has also been shown, for example, that user's perceived usefulness (Maier et al., 2012a) or perceived enjoyment (Turel & Serenko, 2012) influence user satisfaction with an SNS. Hence, in the context of resumption, we hypothesize:

H5: Ex-users' positive beliefs about previous use of an SNS positively influence their use-related satisfaction.

Mooring factors. Mooring factors represent intervening factors that are difficult to change and that hinder or facilitate behavioral change (e.g., Bansal et al., 2005; Lee, 1966; Moon, 1995). Return migration theory suggests that intervening factors may moderate the effects of push and pull factors on return migration intentions or behavior. More specifically, personality traits, which are constant patterns of thoughts, feelings, and behavior across diverse situations, often operate as mooring factors (McCrae & Costa, 2006). For example, personality traits have been shown to be a mooring factor that influences migration or return migration behavior (Jokela, 2009; Tabor et al., 2015). Also, research has demonstrated that personality-related mooring factors such as low levels of variety seeking (Jung et al., 2017) and risk tolerance (Ojiaku et al., 2018) influence switching behavior.

We believe that in an SNS migration context, mooring factors can moderate how push and pull factors influence individuals' resumption of SNS use. Sun et al., (2017) have shown that in the context of migration in a virtual context, inertia operates as a mooring factor that influences the effect of push and pull factors in shaping virtual migration behavior. In a similar vein, IS research has widely examined personality traits (Thatcher et al., 2018; Thatcher & Perrewé, 2002) and found that personality traits influence IS-related behavior (Eckhardt et al., 2016; Maier et al., 2019) and moderate the influence of beliefs on behavior (Devaraj et al., 2008). As such, personality traits can behave as intervening obstacles that hinder or facilitate IS use.

Our research focuses on *dispositional resistance to change* as a mooring factor, which is defined as a person's general inclination to resist change of any kind (Oreg, 2003). Dispositional resistance to change has been described in recent research as inhibiting behavioral change in general (Hon et al., 2014; Oreg 2006) and IT use in particular (Laumer et al., 2015; Polites & Karahanna, 2012). In the SNS context, research has demonstrated that dispositional resistance to change moderates the formation of SNS-specific beliefs and behaviors over time (Maier et al., 2012b). Dispositional resistance to change influences the belief update of perceived usefulness and perceived ease of use such that users with high dispositional resistance to change tend to have more stable beliefs over time. Moreover, dispositional resistance to change shapes how beliefs are developed by confirming one's own behavior (Maier et al., 2012b).

We argue that dispositional resistance to change directly influences SNS resumption intentions. It has been shown that individuals with high dispositional resistance to change are less likely to adopt new SNSs or change their SNS usage behavior (Maier et al., 2015b), reflecting their preference for avoiding change in general. Similarly, we argue that ex-users with high resistance to change tend to exhibit lower intentions to resume SNS use because this would imply switching from the current status (not using an SNS) to a new status (resuming use of the SNS). Individuals with a high dispositional resistance to change generally manifest more consistency regarding their decision-making (Oreg, 2003), which, in the context of this study, would indicate that ex-users with a high dispositional resistance to change are likely to stick with their previous decision to not use the SNS. Thus, we hypothesize:

H6: Ex-users' dispositional resistance to change negatively influences their resumption intentions.

We further argue that dispositional resistance to change, which is specifically relevant for change-related contexts (Laumer et al., 2015; Oreg, 2006) also moderates the influence of push and pull factors on SNS resumption intentions. Personality traits are intervening factors that can positively or negatively moderate how beliefs influence behavioral intentions (Devaraj et al., 2008; Maier et al., 2012b). Return migration theory generally argues that personality trait-based mooring factors moderate the positive relationship between push and pull factors and behavioral intentions (e.g., King, 2015).

We argue that dispositional resistance to change moderates the effects of nonuse-related dissatisfaction as well as use-related satisfaction on resumption intentions. First, we argue that each ex-user has a different threshold of nonuse-related dissatisfaction: the ex-user considers resumption only if the level of dissatisfaction is above that threshold. An ex-user's dispositional resistance to change determines the threshold above which nonuse-related dissatisfaction translates into a resumption intention. Ex-users with high dispositional resistance to change have a higher threshold (Maier et al., 2012b; Oreg, 2003) that must be reached before nonuse-related dissatisfaction impacts resumption intentions. That is, people with high dispositional resistance to change must be sufficiently dissatisfied to change their behavior and migrate back to a previously used SNS. Similarly, an individual's dispositional resistance to change also determines the threshold of use-related satisfaction that must be reached before use-related satisfaction translates into resumption considerations. That is, people with a high dispositional resistance to change need a higher level of satisfaction with past use of an SNS to motivate them to migrate back to using that

SNS. People with low levels of dispositional resistance to change are generally open to change and are accordingly more likely to migrate back to a previously used SNS, even if their motivation from past use, reflected as use-related satisfaction, is not that strong. Taken together, we hypothesize:

H7: Ex-users' dispositional resistance to change negatively moderates the influence of (a) nonuse-related dissatisfaction, and (b) use-related satisfaction on resumption intentions, such that the influence is weaker when dispositional resistance to change is higher.

Recent vs. long-standing ex-users. Return migration research suggests that time (i.e., duration of absence) is an important factor impacting individual decisions to return to a place of origin. Similarly, time (e.g., length of a customer-merchant relationship) has also been shown to be relevant for resumption behavior in other contexts (Zhang et al., 2014). Therefore, we believe that the above hypotheses concerning pull, push, and mooring factors may have different implications for users who discontinued use of an SNS a long time ago versus those who did recently. For the context of SNS use, we define duration of absence as the time between discontinuance (i.e., when a person quits using an SNS) and resumption (i.e., when the person resumes using the SNS).

Defining duration of absence helps us distinguish two types of ex-users: recent ex-users (who discontinued using the SNS recently) and long-standing ex-users (who discontinued using the SNS a long time ago). Recent ex-users are more likely to resume previous behavioral use patterns when their habits are still strongly in place (Polites & Karahanna, 2012, 2013). Recent ex-users consider prior SNS use to be a familiar and ingrained behavioral use pattern. Even for highly motivated users, breaking this pattern is challenging (Maier et al., 2015b; Polites & Karahanna 2013). When a recent ex-user is confronted with negative aspects of nonuse (e.g., feeling socially isolated), the ex-user is more likely to fall back into old behavioral patterns that are still familiar and ingrained (Polites & Karahanna, 2013), i.e., resuming use of the SNS. In contrast, long-standing ex-users have already broken the familiar and ingrained behavior patterns of SNS use and are thus less likely to revert back to using the SNS. Therefore, recent ex-users are more vulnerable than long-standing nonusers to push factors (nonuse-related dissatisfaction) that motivate resumed use of an SNS. We therefore hypothesize:

H8a: The influence of nonuse-related dissatisfaction on resumption intentions is stronger for recent ex-users than for long-standing ex-users.

We argue that use-related satisfaction more strongly influences long-standing ex-users than recent ex-users. For ex-users, nostalgia can be an important factor (Gómez, 1998). When no longer part of a virtual community, individuals may begin to selectively shape prior experience such that positive experiences (e.g., feeling connected) outweigh negative experiences (e.g., communication overload). In line with nostalgia research (Wildschut et al., 2006), in the SNS context, while negative experiences may motivate departure from the virtual community, long-standing ex-users may, over time, begin to focus primarily on recollections of positive memory about the discontinued SNS. In contrast, for recent ex-users, the negative experiences that led them to discontinue use of the SNS are fresh and nostalgia is weak. As such, we argue that use-related satisfaction likely exerts a stronger effect on long-standing ex-users than on a recent ex-user. We therefore hypothesize:

H8b: The influence of use-related satisfaction on resumption intentions is stronger for long-standing ex-users than for recent ex-users.

4 A Mixed Methods Approach

We employed a mixed methods, two-study design. Because previous research on IS use does not directly map to our current research question, a mixed methods approach is appropriate (Venkatesh et al., 2013). We followed the epistemological approach of pragmatism, which places the greatest importance on the research question and on selecting the most suitable research method, allowing us to combine different methods and paradigms—i.e., *induction*, in line with our qualitative study and *deduction*, in line with our quantitative study using two samples. Our design strategy can be characterized as a sequential, mixed methods, multistrand, and less-dominated qualitative strategy followed by a dominant quantitative investigation. This strategy allowed us to elaborate a theory that offers a rich understanding of SNS resumption behavior. We summarize our studies and analysis in Figure 2.

Previous research has suggested that to study a new behavioral pattern it is necessary to first identify relevant salient beliefs (Ajzen & Fishbein, 1980). Therefore, Study 1 uses qualitative methods to identify specific user beliefs that are associated with use-related satisfaction and nonuse-related dissatisfaction. The refined research model is then evaluated in Study 2, which employs quantitative methods to analyze data collected from recent ex-users and long-standing ex-users. By drawing on two samples, we were able to evaluate the effect of temporality on our model. Using an illustrated mixed methods approach, we were then able to corroborate and triangulate research findings to gain a more complete understanding of resumption and its antecedents.

Study 1: Qualitative study	Study 2: Quantitative study (with two samples)	
	…. with recent ex-users	…. with long-standing ex-users
Purpose ▪ Identify salient beliefs **Approach** ▪ Critical incident technique ▪ 41 interviews (23 recent ex-users; 18 long-standing ex-users) ▪ Dialog with recent and long-standing ex-users **Result** ▪ Inventory of salient beliefs causing satisfaction with use and dissatisfaction with non-use that bring users back to using the system ▪ Individuals think about IS resumption after discontinuation	**Purpose** ▪ Evaluate the research model with recent ex-users **Approach** ▪ Longitudinal research design with 3 waves of surveys ▪ 118 recent ex-users ▪ PLS analysis (valid measurement and structural model) **Result** ▪ Identification of factors causing resumption	**Purpose** ▪ Evaluate the research model with long-standing ex-users **Approach** ▪ Longitudinal research design with 3 waves of surveys ▪ 181 long-standing ex-users ▪ PLS analysis (valid measurement and structural model) **Result** ▪ Identification of factors causing resumption

Figure 2. Mixed Methods Research Approach

For this research, we chose a six-month threshold to distinguish recent ex-users and long-standing ex-users: we considered those who quit using an SNS platform at some point during the last six months recent ex-users, and those who quit using an SNS platform over six months ago long-standing ex-users. The rationale is that in behavioral IS research, it is typical to use intervals of one to six months in longitudinal studies, indicating that people are more likely to update their beliefs within six months.[1]

5 Study 1: Qualitative Study

Study 1 aimed to identify context-specific user beliefs, a strategy that Ajzen and Fishbein (1980) recommend when studying new phenomena. We interviewed 18 long-standing and 23 recent ex-users. We contacted users through an established Facebook panel to locate ex-users who had used Facebook but then stopped using it. The 41 ex-users were almost equally divided between men and women and had an average age of 30.2 years. We followed the critical incident technique (Flanagan, 1954) and used a qualitative data coding procedure (Miles et al., 2013; Myers, 2009). The study design, sampling strategy, sample characteristics, and methodology are described in detail in Appendix A.

5.1 Results

We found that 38 of the 41 ex-users of Facebook reported having thoughts about resuming Facebook use. Representative user statements include:

> *Although I was really sure that quitting Facebook was a good decision, I am quite unsure whether it would be better to go back to using it. Now that I am not using it at the moment, I view lots of things differently than before [while I was using it].*
>
> *This new viewpoint [of not using Facebook] makes Facebook more attractive than before, so I could imagine using it again; but I have to think about this more carefully over the next few days, weeks, and months.*
>
> *You never know whether not using Facebook is the right decision. I have to conclude that*

[1] Although it is consistent with the literature (Venkatesh et al., 2003; Kim & Malhotra, 2005; Sun, 2013, we recognize that using a six-month threshold to distinguish recent versus long-standing users is somewhat arbitrary. We are not aware of a theoretically or empirically derived threshold for determining when to call ex-users recent or long-standing; thus, we adhered to best practices found in the IS literature.

taking this step towards nonuse was probably the right one despite some challenges, but you never know.

I agonize over whether it might better to resume using it.

Furthermore, our interviews revealed five major negative beliefs that ex-users had about their nonuse of Facebook: communication underload, information underload, replacement overload, social isolation, and boredom (see Table 4). Quotes describing study participants' nonuse beliefs can be found in Appendix A (Table A1).

Communication underload: Participants reported that discontinuing Facebook use contributed to diminishing their communication quantity and quality in two ways. First, participants reported that discontinuing Facebook reduced their number of conversation partners. Second, participants reported an overall reduced quantity of communication caused by the loss of the communication channel facilitated by Facebook. These effects were particularly significant for weak social ties such as acquaintances, neighbors, former work colleagues, and friends and contacts made while traveling or working abroad. Although not in frequent contact with these individuals, participants reported that they missed having an easy way to maintain contact. While most participants reported difficulty maintaining contact with weak ties, many also reported that without Facebook they also experienced less communication with strong ties.

Information underload: Participants reported that no longer using Facebook reduced their access to information. Facebook offers users the opportunity to give and receive information from one's social environment (Maier et al., 2015a). No longer using Facebook makes it difficult to gather information concerning both strong and weak ties. In our study, the participants felt less informed about their social network and in general, i.e., about current events. This was especially relevant for participants who had previously used Facebook to engage with special interest groups.

Replacement overload: Participants complained that there was no single adequate substitute for Facebook. They reported that alternative communication channels such as SMS or WhatsApp and other SNSs such as Instagram were less sufficient for their needs because they were only useful for communicating with certain members of their previous Facebook network. Participants also complained that alternatives are generally more complicated to use and do not provide the same functionalities. In short, participants reported that Facebook alternatives they tried did not have comparable advantages in terms ease of use and features, requiring them to feel replacement overload, because they had to use several alternatives (e.g., SMS, WhatsApp, e-mail, Instagram) to maintain contact with their social network, which required more effort (Maier et al., 2015b).

Social isolation: Participants reported that no longer using Facebook caused them to feel socially isolated. For example, participants reported difficulties maintaining contact with many of their Facebook friends and difficulty maintaining contact with new people they met in real life. Participants also reported feeling like friends forgot them after they quit using Facebook.

Boredom: Participants reported that prior to quitting Facebook, they were unaware of the amount of time they spent on Facebook and also complained that they missed using Facebook to coordinate group events and other leisure activities. After leaving Facebook, participants reported higher levels of boredom and noted that they sometimes felt an uncomfortable sense of not knowing what to do. While quitting Facebook resulted in more free time, participants felt unsure about how to fill these new gaps in their day and experienced greater boredom.

Summary: Study 1 findings suggest that discontinuing SNS use—Facebook, in particular—resulted in five negative nonuse beliefs capable of impacting levels of nonuse-related dissatisfaction. Hence, we refine H3 with these five nonuse beliefs:

H3 (Refined): (a) Communication underload, (b) information underload, (c) social isolation, (d) boredom, and (e) replacement overload caused by no longer using an SNS positively influences nonuse-related dissatisfaction.

Similarly, our qualitative study confirmed the relevance of two positive beliefs about previous SNS use, perceived usefulness of prior SNS use and perceived enjoyment of prior SNS use, consistent with previous research. These findings are summarized and defined in Table 5 and explained in more detail below[2].

Perceived usefulness of prior SNS use: Facebook ex-users reported usefulness as a driver of satisfaction associated with using Facebook. Participants perceived Facebook as useful for staying in contact with others and communicating with both strong and weak ties.

[2] It is worth noting that perceived ease of use, which is defined as the degree to which using a system is perceived to be free of effort, is not examined in this research because research suggests that perceived ease of use becomes less salient after the adoption stage, as users gain more experience using the system (Venkatesh, 2000). In contrast, as experience grows, perceived usefulness and perceived enjoyment become more salient (Agarwal & Karahanna, 2000; van der Heijden, 2004).

Table 4. Nonuse Beliefs Identified Using Qualitative Analyses (see Appendix A, Table A1 for exemplary quotes)

Nonuse belief	Definition	# of mentions by 23 recent ex-users	# of mentions by 18 long-standing ex-users
Communication underload	A negative perception of being involved in fewer than desired interactions as a result of no longer using an SNS.	19	11
Information underload	A negative perception of receiving less information than desired as a result of no longer using an SNS.	20	13
Replacement overload	A negative perception of having to use too many different (non)technological alternatives to replace the functionalities of the discontinued SNS.	15	3
Social isolation	A negative perception of having fewer social contacts and feeling not well-embedded in the social network as a result of no longer using an SNS.	16	9
Boredom	A negative perception of having nothing to do and not knowing what to do with oneself as a result of no longer using an SNS.	11	6

Table 5. Use Beliefs Identified Using Qualitative Analyses (see Appendix A, Table A1 for detailed quotes)

Use belief	Definition	# of mentions by 23 recent ex-users	# of mentions by 18 long-standing ex-users
Perceived usefulness of prior SNS use	The belief that using an SNS would be useful.	19	11
Perceived enjoyment of prior SNS use.	The belief that using Facebook would be fun.	20	13

Since numerous IS studies have shown that perceived usefulness predicts adoption and postadoption use of many technologies (Karahanna et al., 1999; Venkatesh, 2000) including Facebook (Maier et al., 2015b), we were not surprised to find that perceived usefulness of prior SNS use was a salient user belief among our participants.

Perceived enjoyment of prior SNS use: In line with previous research indicating that perceived enjoyment is a positive feature of Facebook use (Turel & Serenko, 2012), we were not surprised to find that our participants also confirmed the importance of perceived enjoyment of prior SNS use: participants specifically mentioned that playing virtual online games and using applications was a fun and positive feature of the Facebook user experience that contributed to their satisfaction.

Summary: Study 2 findings confirm that perceived usefulness of prior SNS use and perceived enjoyment of prior SNS use are relevant to ex-users' satisfaction with Facebook use. Hence, we refine H5 with these two use-related beliefs:

H5 (refined): Ex-users' (a) perceived usefulness of prior SNS use, and (b) perceived enjoyment of prior SNS use positively influence their use-related satisfaction.

5.2 A Refined Research Model of SNS Resumption

Based on the theoretical arguments developed above and the specific beliefs identified through the qualitative study, we refine our research model by integrating the five negative beliefs related to nonuse and two positive beliefs related to the use of the SNS Facebook, as depicted in Figure 3. This research model provides the basis for our quantitative study, as will be discussed next.

6 Study 2: Quantitative Study with two Samples

To test our research model, we conducted surveys focusing on Facebook, because it is the largest and most widely used SNS in the world.[3] Appendix B describes the study design and strategy for each sample. We conducted two empirical studies, each focusing on a specific sample. The first study focused on recent ex-users and the second study focused on long-standing ex-users. Both studies were longitudinal and consisted of three waves of data collection. Sample characteristics are provided in Table 6.

[3] https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/

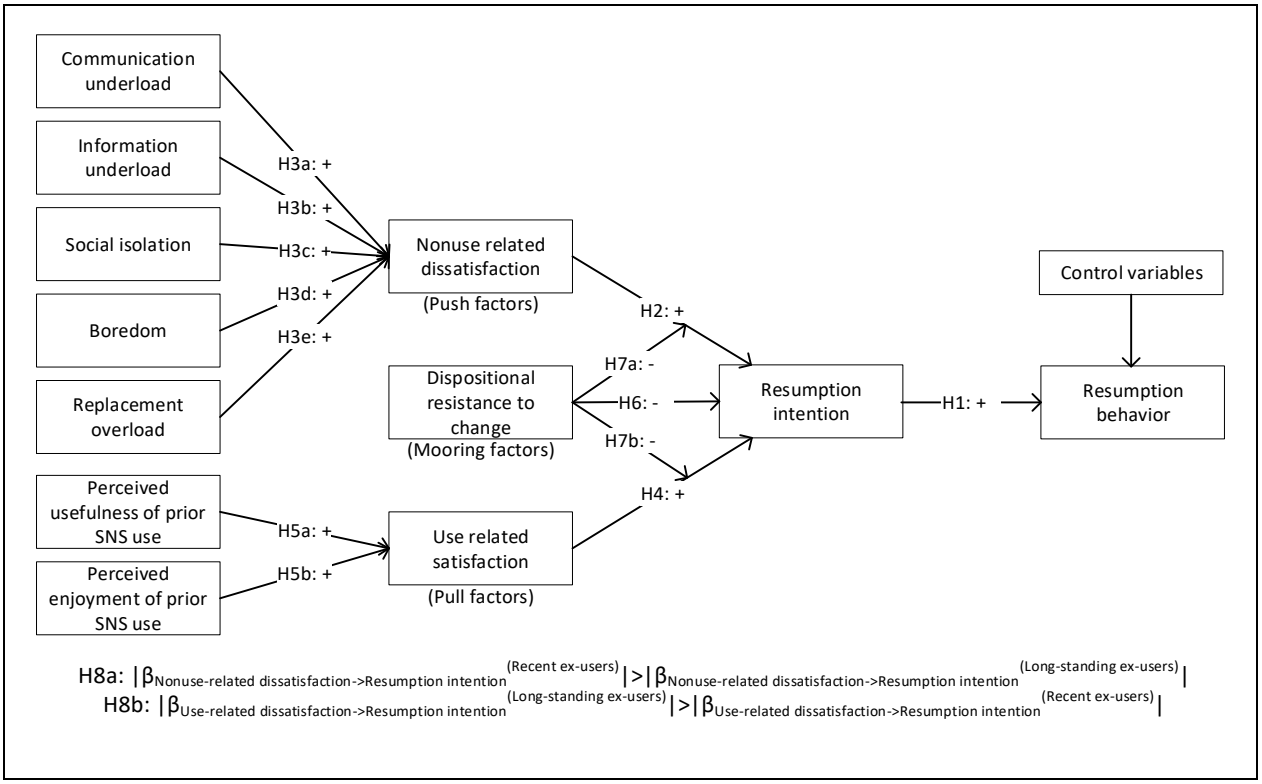


Figure 3. Refined Research Model of SNS Resumption

Table 6. Sample Characteristics of the 118 Recent Ex-Users (Sample 1) and 181 Long-Standing Ex-Users (Sample 2)

		Sample 1: Recent ex-users	Sample 2: Long-standing ex-users
Gender		50% female, 50% male	44% female, 56% male
Age (in percentages, mean 30.2 | 33.4)	**<20**	21.1	1.8
	20-29	42.7	36.8
	30-39	23.2	43.3
	>39	15	18.1
Number of friends on Facebook (in percentages, mean 301 | 227)	**<100**	7.1	31.9
	100-199	19.7	19.8
	200-299	30.7	14.5
	300-399	16.8	15.7
	400-499	18.6	4.1
	>499	7.1	14
Time spent on Facebook (in percentages, mean 39.9 min | 55.8 min)	**<15min**	24.8	22.1
	15-30min	27.4	34.9
	31-45min	22.1	14
	46-60min	12.4	5.8
	60-120min	6.2	15.1
	>120min	7.1	8.1

Functionalities used frequently (in percentages)	**Chatting/writing private messages**	78.1	73.5
	Checking newsfeed	77.2	79.4
	Clicking like-button	54.2	49.2
	Browsing friends' lists of friends	24.7	22.1
	Posting messages	14.6	19.6
	Searching for individuals	8.9	9.8
Note: Data were collected in the first survey			

6.1 Measures

All measures used in our quantitative study can be found in Appendix B (Table B5). As much as possible, we adapted previously validated measures. For each of the five items, we measured *nonuse-related dissatisfaction* and *use-related satisfaction*, which have both been used in general contexts (Bhattacherjee & Lin 2015) as well as in SNS-specific research (Maier et al., 2015b). For nonuse-related dissatisfaction, we adapted the items by adding the term "not" before "using Facebook" in each item to draw focus to the nonuse period: for example, "I am very satisfied with using Facebook" versus "I am very dissatisfied with not using Facebook."

To measure perceived enjoyment of prior SNS use and perceived usefulness of prior SNS use, we referred to previous research that measures both beliefs in the context of using the SNS Facebook (Maier et al., 2015b; Turel & Serenko, 2012). To measure *replacement overload*, we used four items validated in prior research (Maier et al., 2015b), such as: "I have to use too many different alternatives in order to stay in touch with my social environment." and "I have to use too many different alternatives in order to get information from my social environment." For *dispositional resistance to change*, we used measures from Oreg's (2003) research. We conceptualized it as a second-order construct, including four dimensions of routine seeking, emotional reaction, short-term thinking, and cognitive rigidity.

We self-developed measures of *social isolation, communication underload, information underload,* and *boredom*. The instrument development process is described in Appendix B. To measure resumption intentions, we started with prior related research focusing on related intentional and behavioral variables (Venkatesh et al., 2012) and adapted the items to the context of resumption. This resulted in three items we used to measure resumption intention, including "In the future, I intend to use Facebook again." In line with previous research focusing on behavioral variables, we measured resumption behavior using a *yes / no* item: "I am using Facebook again." [4]

We included control variables used in other research on IT acceptance or SNS. Specifically, we included control variables such as age, gender, number of Facebook friends, time spent on Facebook per day before discontinuance, discontinuance motivation, social embeddedness, and duration of absence (in the long-standing ex-user sample only). For the sample of recent ex-users, we also included habit (Bhattacherjee & Lin, 2015). Discontinuance motivation acknowledges that an ex-user's decision to stop using an SNS can be two-dimensional: individuals might either be attracted by an alternative SNS or they may just decide to stop using the SNS. Therefore, we asked: "Please specify whether you started using an alternative after you deleted your Facebook account." Social embeddedness reflects how many good friends were Facebook friends. We measured it using one item: "How many of your prior Facebook-friends were real friends (as a percentage)." Duration of absence (focused on long-standing ex-users) reflects a self-assessment about how long it had been since an individual stopped using Facebook. To measure this, we asked: "Please specify how long ago you deleted your Facebook account."

6.2 Data Analysis

In line with previous research (Tarafdar et al., 2020), we used tools including CB-SEM to develop new measures and then turned to the use of the partial least squares (PLS) method using SmartPLS 3.2.4 (Ringle et al., 2014) to evaluate the research model. We used

[4] We also collected data for resumption behavior with a 7-point Likert scale. Results are comparable in a way that significant relationships remain significant. Only the R^2 values differ slightly.

PLS because it is particularly suitable for investigating new theoretical relationships, e.g., resumption and its antecedents because of its high statistical power (Sarstedt & Mooi, 2019).

To ensure that our sample size met power requirements for detecting significant relationships, we followed Kim's (2005) suggestion and calculated power based on (1) number of variables / degrees of freedom, (2) the relationship among the variables, (3) choice of fit index, and (4) value of the fit index. Focusing on the more restrictive sample with more variables (the sample focusing on long-standing ex-users) and using Steiger's gamma (with $\gamma = 0.95$; $\alpha = 0.05$; *Power* = 0.90), the proposed sample size is 110.8, while using RMSEA (α=0.05; *Power* = 0.90) reveals a minimum proposed sample size of 39.6 for the proposed research model. Both samples (sample 1: 116 recent ex-users, sample 2: 181 long-standing ex-users) exceeded these requirements.

6.2.1 Measurement Model

Since each construct and the first-order constructs of dispositional resistance to change are measured by reflective indicators, we evaluated the content validity, indicator reliability, construct reliability, and discriminant validity of the measurement model (Bagozzi, 1979). We evaluated the second-order construct consistent with guidelines offered by Wright et al., (2012). We also assessed the extent of common method bias (CMB) using four different tests and concluded that CMB is not likely an issue for our results (see Appendix B). We also tested the differences in the responses between early and late respondents by comparing the demographics for the first 33% and the last 33% of responses. The *t*-test we used revealed no significant differences ($p > 0.05$), suggesting that early-late response bias is likely not an issue.

Indicator reliability. The indicator reliability shows the degree to which the variance of an indicator originates in the latent variables. To explain 50% of the variance of a latent variable on the basis of the indicators, the loading must be at least 0.707 (Carmines & Zeller 2008). This was fulfilled for all indicators in both samples. Moreover, based on a bootstrap analysis using 5,000 samples, we found the loadings to be highly significant (Appendix B, Table B5).

Construct reliability. To determine the quality at the construct level, we used composite reliability (CR) and average variance extracted (AVE) (Fornell & Larcker 1981). AVE should be higher than 0.5 and CR higher than 0.7; as shown in Appendix B (Table B6 and Table B7), both criteria were met for both samples.

Discriminant validity. Discriminant validity describes the extent to which specific measurement items differ from others (Campell & Fiske, 1959). Therefore, the square root of AVE is included in Appendix B (Table B6 and Table B7) on the diagonal of the bivariate correlations. As these square root values are greater than the corresponding construct correlations (Fornell & Larcker, 1981; Hulland, 1999), we can state with confidence that this requirement was fulfilled in both samples. As the heterotrait-monotrait (HTMT) ratio of correlations criterion detects a lack of discriminant validity more reliably than the Fornell-Larcker criterion, it is used to assess discriminant validity (Henseler et al., 2014). Based on the absolute $HTMT_{0.85}$ criterion, we determined that discriminant validity is not an issue for our research, meaning that the measurement model is valid in both samples.

We also tested for multicollinearity. We used the variance inflation factor (VIF) as an indicator, which revealed that in both samples the VIF value was lower than the recommended maximum VIF value of 5 (Rogerson, 2001); the highest value between social isolation and nonuse-related dissatisfaction (the sample focusing on recent ex-users) was 2.948.

6.2.2 Structural Model

We use the coefficient of determination (R^2), the significance levels of each path coefficient, the effect size, the moderation effects, and the standardized root mean square residual (SRMR) to evaluate the structural model. Figure 4 indicates that our model explained 47.0% (recent ex-users) / 67.7% (long-standing ex-users) of the variance of an individual's resumption intention, which, in turn, explained 47.4% / 50.4% of actual resumption behavior. Moreover, the salient beliefs about nonuse explained 59.2% / 59.4% of nonuse-related dissatisfaction. Interestingly, the salient beliefs (perceived usefulness of prior SNS use and perceived enjoyment of prior SNS use) about use explained 18.3% of the variance in recent ex-users' use-related satisfaction and 60.0% of the variance in long-standing ex-users' use-related satisfaction.

Concerning the path coefficients and whether these are significant, we found the results to be comparable in samples of both recent and long-standing ex-users. Specifically, resumption intention is a good predictor of resumption behavior for both recent (H1: $\beta = 0.52$, $p < 0.005$) and long-standing ($\beta = 0.58$, $p < 0.005$) ex-users. Furthermore, our results reveal that use-related satisfaction (H4: $\beta = 0.34$, $p < 0.005$ [recent ex-users]; $\beta = 0.61$, $p < 0.005$ [long-standing ex-users]) and nonuse-related dissatisfaction (H2: $\beta = 0.39$, $p < 0.005$ [recent ex-users]; $\beta = 0.28$, $p < 0.005$ [long-standing ex-users]) significantly influence resumption intentions.

Dispositional resistance to change, the mooring factor, does not significantly influence resumption intention directly (H6: β = 0.05, $p > 0.05$ [recent ex-users]; β = -0.02, $p > 0.05$ [long-standing ex-users]). However, it moderates the impact of how nonuse-related dissatisfaction (H7b: β = -0.30, $p < 0.005$ [recent ex-users]; β = -0.14, $p < 0.05$ [long-standing ex-users]) and use-related satisfaction (H7a: β = -0.15, $p < 0.05$ [recent ex-users]; β = -0.16, $p < 0.05$ [long-standing ex-users]) impact resumption intentions.

Concerning the identified salient beliefs, our results confirmed that communication underload (H3a: β = 0.29 , $p < 0.005$ [recent ex-users]; β = 0.24 , $p < 0.01$ [long-standing ex-users]), information underload (H3b: β = 0.23, $p < 0.01$ [recent ex-users]; β = 0.23, $p < 0.005$ [long-standing ex-users]), social isolation (H3c: β = 0.19, $p < 0.01$ [recent ex-users]; β = 0.24, $p < 0.01$ [long-standing ex-users]) and boredom (H3d: β = 0.13, $p < 0.05$ [recent ex-users]; β = 0.13, $p < 0.05$ [long-standing ex-users]) have significant effects on nonuse-related dissatisfaction. However, replacement overload has no significant impact on nonuse-related dissatisfaction (H3e: β = 0.05, $p > 0.05$ [recent ex-users]; β = 0.05, $p > 0.05$ [long-standing ex-users]). Our results also suggest that perceived usefulness of prior SNS use (H5a: β = 0.13, $p < 0.05$ [recent ex-users]; β = 0.25, $p < 0.01$ [long-standing ex-users]) and perceived enjoyment of prior SNS use (H5b: β = 0.35, $p < 0.005$ [recent ex-users]; β = 0.60, $p < 0.005$ [long-standing ex-users]) significantly influence use-related satisfaction. Concerning the control variables, our results reveal that habit is the only control variable collected in the sample of recent ex-users that significantly influences resumption behavior (see Appendix B Table B8).

To test the temporal effects hypothesized in H8, we used the approach suggested by Dibbern and Chin (2005) and Chin and Dibbern (2006) to compare path coefficients between recent and long-standing ex-users. Our results reveal significant differences regarding the influence of nonuse-related dissatisfaction on resumption intention (stronger for recent ex-users; d = 0.11, $p < 0.05$) and for the influence of use-related satisfaction on resumption intentions (stronger for long-standing ex-users; d = 0.27, $p < 0.05$). Similar results can be seen when using the partial least squares multi-group analysis (PLS-MGA) for both relationships ($p < 0.05$), providing support for H8a and H8b.

In line with developing a single-context model (Hong et al., 2014), we include mediation analysis to study whether and how the identified user beliefs influence SNS resumption. Results indicate that each belief except for replacement overload ($p > 0.10$ in both samples) has an indirect effect on resumption behavior ($p < 0.05$ for all effects in both samples).

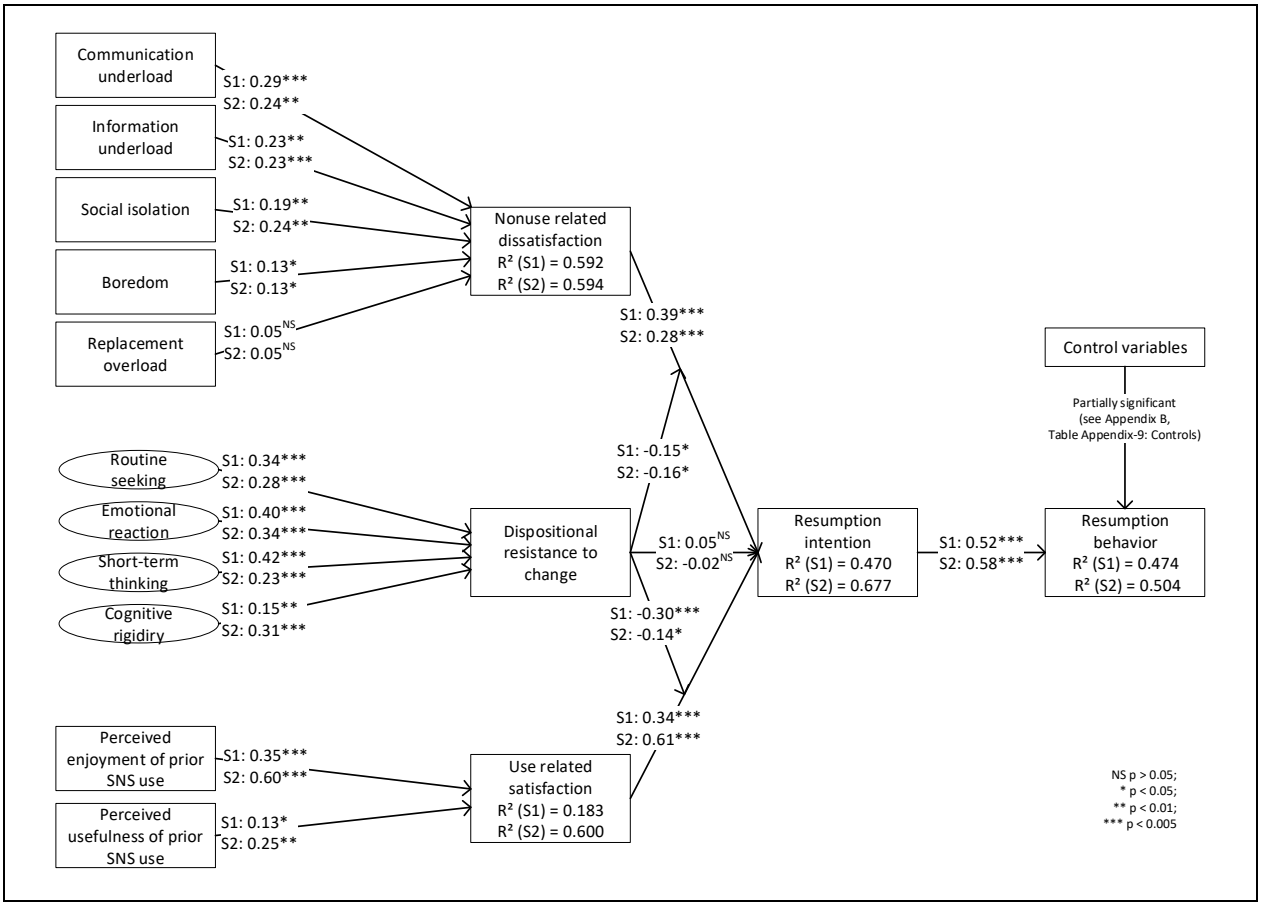
Finally, Henseler et al. (2014) proposed using the SRMR, which is defined as the difference between the observed and the predicted correlation, as an absolute measure of fit. Based on the value of 0.078 [recent ex-users] and 0.071 [long-standing ex-users], we conclude that a good fit was achieved.

6.2.3 Post Hoc Analysis

Using a revised structural model, we then investigated the relationship between nonuse-related dissatisfaction and use-related satisfaction. We included an additional path in the model to assess whether nonuse-related dissatisfaction experienced during nonuse of the SNS might cause distorted perceptions of use-related satisfaction among ex-users. Findings indicate a significant positive relationship (recent ex-users: 0.38, $p < 0.005$; long-standing ex-users: 0.40, $p < 0.005$) between nonuse-related dissatisfaction and use-related satisfaction. It is noteworthy that other relationships did not significantly change in this analysis.

Furthermore, since our main analysis reveals differences for recent ex-users and long-standing ex-users, we further analyzed the relative importance[5] of nonuse-related dissatisfaction and use-related satisfaction separately for each of the two different groups of ex-users. To do so, we estimated configurational invariance and compositional invariance (see Appendix B: Measurement invariance). We used the path comparison method proposed by Cohen et al. (2003), which has been applied in previous research (Maier et al., 2019), together with Dibbern and Chin's (2005) and Chin and Dibbern's (2006) techniques. First, when focusing on recent ex-users, the results suggest that there is no difference in the influence of nonuse-related dissatisfaction or use-related satisfaction on resumption intentions ($p > 0.05$ per Cohen test). Second, when focusing on long-standing ex-users, we found that use-related satisfaction had a stronger effect on resumption intentions than did nonuse-related dissatisfaction for long-standing ex-users ($p < 0.01$ per Cohen test).

[5] To clarify, for H8, we test whether paths included in our research model are different between recent vs. long-standing ex-users. In our post hoc analysis testing the relative influence, we focused on both samples (recent and long-standing ex-user) separately and thereby studied whether nonuse-related satisfaction had a stronger/weaker effect on resumption intention than use-related satisfaction in each sample.



Note: Two samples are denoted with S1 for the sample of recent ex-users and S2 for the sample of long-standing ex-users. Constructs measured at three different points in time (Appendix B, Figures B1, B2). Rectangles are constructs; ellipses are dimensions.

Figure 4. Hypothesis Test Results

7 Meta-Inferences

Before discussing our results, we draw meta-inferences between the qualitative findings of Study 1 and those of Study 2 (Venkatesh et al., 2013). While applying the epistemological perspective of pragmatism, we selected combined reasoning approaches, e.g., induction (in line with our qualitative study) and deduction (in line with our quantitative study). We used inductive reasoning to derive our qualitative inferences about salient beliefs shaping nonuse-related dissatisfaction and use-related satisfaction. Then, we used deductive reasoning to deduce the inferences of our quantitative study regarding the impact of identified beliefs on the resumption behavior of long-standing and recent ex-users. In both studies, we aimed to minimize threats such as biases during the data collection, inadequate data transformation, and failure to address validity issues by using established analysis and validity criteria, thus ensuring the high quality of our meta-inferences. With that, and by using the mixture of generalizability modes, we were able to triangulate the inferences of both studies to deduce meta-inferences.

We observed high convergence between the two studies: Study 1 identified salient beliefs, which, with the exception of replacement overload, were confirmed in Study 2 as significant antecedents relevant for nonuse-related dissatisfaction and use-related satisfaction. Furthermore, we drew on Study 1 to generate complementary insights from Study 2. First, we observed that the identified beliefs and the two types of (dis)satisfaction (i.e., nonuse-related dissatisfaction and use-related satisfaction) have an impact on resumption intention and behavior. Second, we found evidence that the findings are valid for recent as well as long-standing ex-users, even though the two types of (dis)satisfaction guide resumption intention in different ways. Finally, our quantitative analysis also demonstrates that personality traits in terms of dispositional resistance to change influence whether nonuse-related dissatisfaction and use-related satisfaction translate into resumption intentions. In sum, the developmental approach of using both a

quantitative and a qualitative study (Venkatesh et al., 2013) made it possible to develop and validate a research model of SNS resumption, and we found that the conjunction of these two studies added value beyond that of each study. Using quantitative samples, bolstered our qualitative research by providing strong statistical evidence concerning the strength of relationships. Using both data types allowed us to offer a more complete explanation of individuals' resumption behaviors. Beyond the convergence and complementary findings generated by our two studies, we ensured high-quality meta-inferences in terms of design quality (by adhering to established guidelines for quality and rigor in both studies), explanatory quality (by ensuring integrative efficacy), and legitimations (by using established analysis) (Mattke et al., 2020).

8 Discussion

While previous research has shown that SNSs with a large user base are challenged by users discontinuing (Maier et al., 2015a) or switching to other SNSs (Chang et al., 2014; Xu et al., 2014), our research focuses on SNS resumption behavior, an understudied behavior that can increase the user base of SNSs. Since resumption is a distinct and understudied phenomenon, we started with a single-context model of SNS resumption (Hong et al., 2014), which was further refined and tested using a mixed methods approach. Our analyses suggest that resumption is relevant to the SNS use context. Our results suggest that SNS resumption is influenced by nonuse-related dissatisfaction as well as use-related satisfaction, which, in turn, are influenced by SNS-specific ex-user beliefs. The impact of nonuse-related dissatisfaction and use-related satisfaction on SNS resumption is moderated by the ex-user's dispositional resistance to change. We conducted two empirical studies that consistently confirmed most of our hypotheses.

8.1 Contributions and Research Implications

Our research contributes to existing IS research by systematically developing and testing a new type of system use behavior, namely, SNS resumption. Distinct from the existing concepts of adoption, use, and discontinuation of SNS, SNS resumption constitutes a novel perspective for understanding why users renew SNS participation. Figure 5 illustrates the differences between resumption and related concepts.

First, we systematically conceptualized a new construct, SNS resumption, which is highly relevant to practice. We further distinguished SNS resumption from the established SNS behavioral patterns of adoption, continuous usage, and discontinuation (Maier 2020) and also identified beliefs relevant to SNS resumption. As recommended by research on new perspectives on IT acceptance (Straub & Burton-Jones, 2007; Venkatesh et al., 2007), our work provides a framework, novel constructs, and a mixed methods view of SNS resumption, which serve to illuminate this understudied behavioral pattern.

Second, we systematically developed a contextualized model of SNS resumption based on return migration theory and conducted empirical studies to further refine and test the model. While some existing research has used migration theory to explain why individuals' expectations lead them to switch to a new, unfamiliar SNS (Chang et al., 2014; Xu et al., 2014), our contextualized return migration theory specifically explains how prior use experience shapes user decisions to resume the use of a social technology like an SNS. Our operationalization of the SNS resumption model demonstrates that dissatisfaction derived from not using an SNS (as a push factor) and satisfaction derived from using an SNS (as a pull factor) jointly drive ex-users to resume use of a previously used SNS. We found that the impact of nonuse-related dissatisfaction and use-related satisfaction on SNS resumption are moderated by ex-users' dispositional resistance to change (a mooring factor).

Third, we further contextualized return migration theory by specifying the beliefs related to SNS resumption through our qualitative study (Hong et al., 2014; Te'eni 2017). We found five context-specific user beliefs that are related to nonuse-related dissatisfaction in the SNS use context: *social isolation*, *communication underload*, *information underload*, *replacement overload*, and *boredom*. In doing so, we extend prior work that focuses on negative beliefs that lead SNS users to consider switching or quitting the SNS by demonstrating that discontinuing SNS use can also create negative beliefs and dissatisfaction associated with no longer using the technology (Maier et al., 2015b). We also self-developed new measures to evaluate these new beliefs.

Fourth, our work provides evidence that understanding why and how SNS users interact with SNS platforms requires examining both social and technological factors. Our studies underscore that ex-users' "push beliefs" about resumption generally result from social elements, while ex-users' "pull beliefs" tend to be caused by technological elements. Taken in the context of ex-users' particular levels of "dispositional resistance," a mooring factor, we observed that resumption behavior is grounded in relationships between social factors, technological factors, and personality traits.

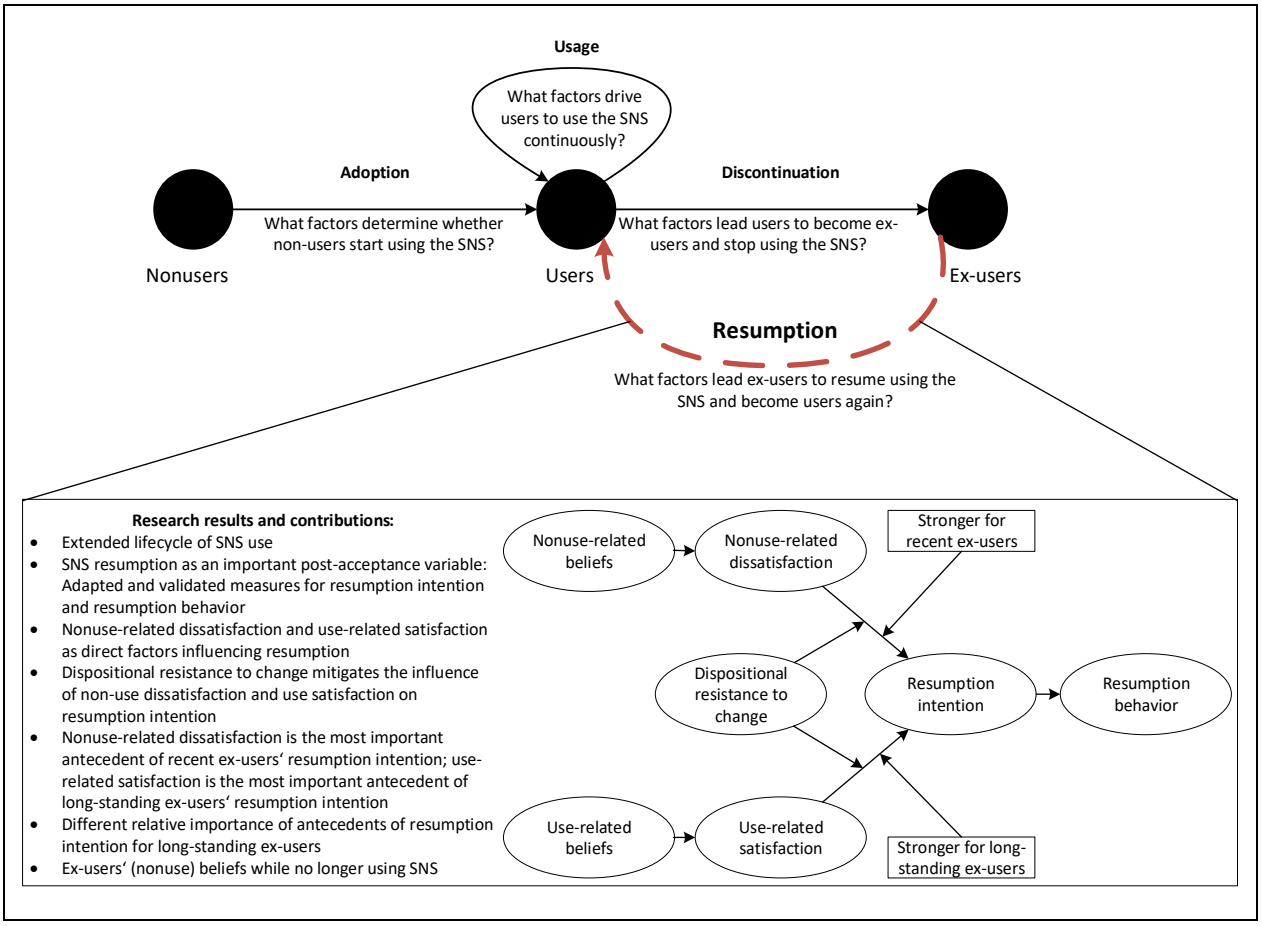


Figure 5. Summary of Findings

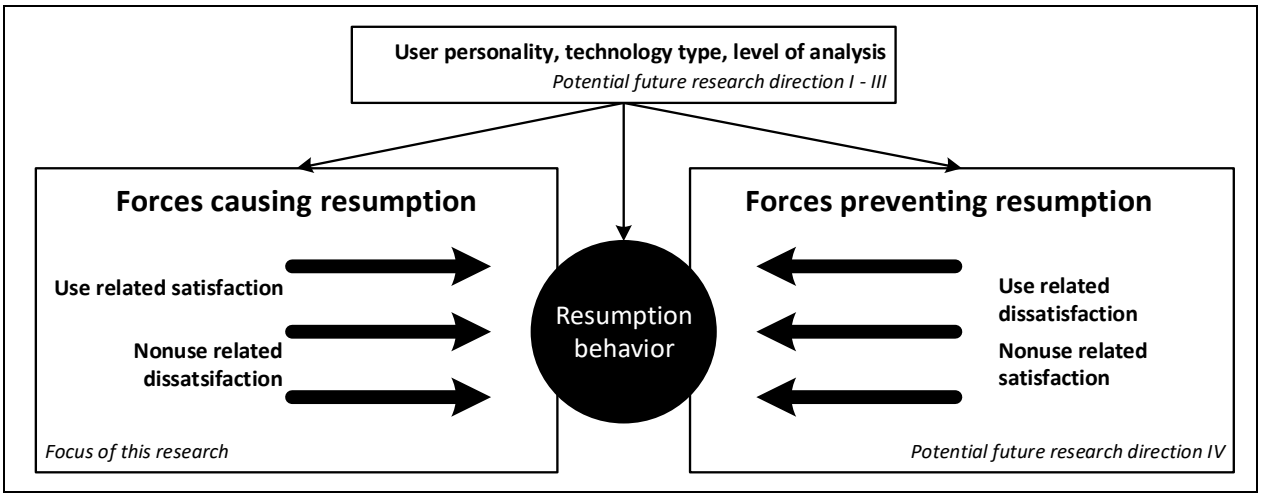


Figure 6. Potential Future Research Directions

Fifth, our research suggests a need to further investigate temporality and technology use. We found that the main relationships in the research model were dependent on the length of time that had elapsed since an individual discontinued using the SNS. Specifically, we compared recent ex-users and long-standing ex-users and found that recent and long-standing ex-users differ in terms of how dissatisfaction or satisfaction relate to resumption intention. Recent ex-users based their resumption intentions more substantially on nonuse-related dissatisfaction. In contrast, for long-standing ex-users, resumption intentions were more strongly influenced by use-related satisfaction. This differentiation between ex-user types could be particularly interesting for SNS researchers and providers seeking to understand how to craft "win back" strategies for ex-users. For example, it would be interesting to examine whether different win-back strategies could be designed to appeal to different types of ex-SNS users and whether, for example, recent versus long-standing ex-users would respond differently to financial or social incentives. Therefore, while the experience of use has been studied extensively in the IS research, considering the "experience of nonuse" may also be valuable.

8.2 Limitations

This research has a few limitations. We were unable to access data about the average age, educational level, or sex of our sample of ex-users. However, to mitigate this concern, we included several control variables in our analysis. Furthermore, our post hoc analysis suggests that nonuse-related dissatisfaction and use-related satisfaction are related to each other. Even though return migration theory does not theoretically suggest that there are interrelations between push and pull factors, future research might theoretically and empirically examine their relationship to understand how these influence each other. Finally, this study focuses on one SNS: Facebook. Even though our theoretical framework suggests that satisfaction and dissatisfaction are general influencing factors, they might be influenced by different use- and nonuse-related beliefs on other SNSs (e.g., Snapchat, Instagram, TikTok).

8.3 Future Research

This research opens up many possibilities for future research on resumption behavior (summarized in Figure 6). First, while this research is focused only on those who resume their use of SNS, there is a need for work that compares ex-users who resume use and those who do not resume use of an SNS in terms of specific personality traits, experiences (while using and no longer using the SNS), and specific features of the SNS. Such research can reveal profiles of individuals (Maier et al., 2020; Pflügner et al., 2020) who are likely to resume using a social technology like an SNS. Further, such research might inspire thinking regarding the specific features of an SNS that are likely to impede use resumption. Such insights could help guide organizations in crafting strategies and feature sets that could convince more ex-users to resume using their SNS platforms.

Second, this research focuses on Facebook. We constrained our work to one platform in order to glean richer insights into how use context shapes resumption behavior (Hong et al., 2014; Te'eni, 2017). As such, Facebook represents a boundary condition for our model. We identify specific negative beliefs related to not using an SNS and salient positive beliefs related to SNS use that are contextualized to Facebook. Future work is needed on the resumption of using other SNS platforms and other types of information systems. For example, future research might investigate whether resumption is also relevant for utilitarian systems (Gerow et al., 2017) such as the file hosting service Dropbox and whether it is influenced by additional factors (Xu et al., 2017) like costs, service level agreements, or technological issues. This would improve the understanding of the differences and similarities of resumption behavior across various technological contexts.

Third, while this research employs an individual-level perspective, our work hints that group-level factors may influence resumption. Recent research underscores the need to examine strong group-level effects. For example, individuals imitate each other (Sun, 2013), implying that future research on herding behavior might shed light on SNS resumption behavior. Similarly, other group-level contextual factors, e.g., network externalities, might also influence resumption behavior. For example, future research could investigate how design elements that facilitate group-level synchronous and asynchronous communication adapted by Facebook (e.g., implementing the Facebook timeline, Facebook messenger), which can be powered by network utilities (e.g., the system is more useful when more people use it), influence ex-users' resumption-related beliefs.

Fourth, while this research focused on dissatisfaction and satisfaction as push and pull factors, future work should examine other negative use beliefs and positive nonuse beliefs that prevent resumption. Thus, future research might focus on other negative use beliefs (e.g., stress- or privacy-related beliefs associated with prior usage) and positive nonuse beliefs (e.g., the relative advantages of nonuse compared to use), as this might also explain why ex-users do not resume using SNSs.

Further, we suspect that resumption and nonresumption may be distinct theoretical phenomena that thus require different theoretical foundations. Our work sheds light on only one set of behaviors, namely

why ex-users resume use. Future work should direct attention to understanding why ex-users do not resume use. It might also be interesting to understand how satisfaction/dissatisfaction (in terms of either use or nonuse) might influence decisions to continue not using or even derogate an abandoned SNS.

8.4 Practical Implications

Our results are relevant to SNS providers seeking to craft strategies to draw ex-users back to an SNS and suggest that SNS providers should direct attention to levers that shape resumption behavior: use-related satisfaction and nonuse-related dissatisfaction, along with the associated beliefs. For example, SNS providers could craft strategies that remind ex-users of the social or technological benefits they are missing out on because of nonuse. Such strategies could focus on triggering feelings of information underload, underscoring the impact of unanswered interaction on communication underload, reminding ex-users of missed social connections, and reminding ex-users of the feelings of community that combat social isolation.

If closing an account does not involve deleting contact information, SNS providers could, for example, craft messages that integrate past use information to trigger resumption. For example, if SNS providers have permission to contact ex-users, they could use ex-users' email addresses and even their mobile telephone numbers to directly send emails, SMSs, or WhatsApp messages with headlines such as: "You missed 400 friends' updates this week", and provide detailed information about certain updates in the ex-users circle of SNS friends, for example: "John and Amy got married last week". Such messages could create negative nonuse beliefs that are strong enough to cause ex-users to consider resuming use of the SNS.

If SNS providers lack permission to contact ex-users, they could send targeted messages on channels frequented by groups that share ex-users' demographics, such as blogs, news sources, and media content. For example, Facebook recently implemented a broad campaign to underscore the value of privacy updates across media channels. Facebook also recently integrated feature sets that appeal to younger users such as stories, more multimedia content, and more effective content management. Such broad strategies could tap into ex-users' reasons for discontinuing use (e.g., functionality) or motivations for resuming SNS use (e.g., missing information/content), which may help SNS platforms attract previous users.

Moreover, our findings underscore the importance of setting realistic benchmarks for SNS resumption strategies. It is important to recognize that such strategies will not be equally effective for all users. The moderating influence of dispositional resistance to change reveals that SNS providers' resumption strategies will most likely attract individuals with low dispositional resistance to change. SNS providers can thus only partially influence whether ex-users become users again because, to some degree, resumption is grounded in individuals' personalities.

9 Conclusion

This research introduces the concept of resumption behavior to IS research and develops a contextual model of SNS resumption. Based on return migration theory, we explain how use-related satisfaction and nonuse-related dissatisfaction shape resumption intentions. Using a qualitative approach, we identify user beliefs driving use-related satisfaction and nonuse-related dissatisfaction. Using a quantitative survey approach, we demonstrate that positive and negative beliefs shape use-related satisfaction and nonuse-related dissatisfaction and show that dispositional resistance to change moderates how these factors relate to resumption intention. Our results reveal that while recent and long-standing ex-users base their resumption decisions on the same factors, they weigh these factors differently. The research model, as well as associated findings and measurement instruments, provide a tool for future research studying the important topic of use resumption behavior.

References

Agarwal, R. & Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS Quarterly, 24*(4), 665-694.

Ajzen I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall.

Aslam S. (2018). LinkedIn by the numbers: Stats, demographics & fun facts. https://www.omnicoreagency.com/linkedin-statistics/.

Bagozzi, R. P. (1979). The role of measurement in theory construction and hypothesis testing: Toward a holistic model. In O. C. Ferrell, S. W. Brown, and C. W. Lamb (Eds.), *Conceptual and theoretical developments in marketing* (pp. 15-32). American Marketing Association.

Bansal, H. S., Taylor, S. F., & James, Y. S. (2005). "Migrating" to new service providers: toward a unifying framework of consumers' switching behaviors. *Journal of the Academy of Marketing Science, 33*(1), 96-115.

Bary, E. (2017). As Facebook repels young users, can Instagram and Snapchat capitalize? https://www.marketwatch.com/story/as-facebook-repels-young-users-can-instagram-and-snapchat-capitalize-2018-02-12.

Basak, E., & Calisir, F. (2015). An empirical study on factors affecting continuance intention of using Facebook. *Computers in Human Behavior, 48*, 181-189.

Beaudry A., & Pinsonneault A (2005). Understanding user responses to information technology: A coping model of user adaptation. *MIS Quarterly 29*(3), 493-524.

Bhattacherjee, A., & Lin, C.-P. (2015). A unified model of IT continuance: three complementary perspectives and crossover effects. *European Journal of Information Systems 24*(4), 364-373

Bhattacherjee, A., & Park, S. C. (2013) Why end-users move to the cloud: a migration-theoretic analysis. *European Journal of Information Systems, 23*(3), 357-372.

Campell, D. T., & Fiske, D. W. (1959) Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin, 56*(2), 81-105.

Carmines, E. G.., & Zeller, R. A. (2008). *Reliability and validity assessment.* SAGE.

Carter, M., Wright, R., Thatcher, J. B., & Klein, R. (2014). Understanding online customers' ties to merchants. The moderating influence of trust on the relationship between switching costs and e-loyalty. *European Journal of Information Systems, 23*(2), 185-204.

Chang, I.-C., Liu, C.-C., & Chen, K. (2014) The push, pull and mooring effects in virtual migration for social networking sites. *Information Systems Journal, 24*(4), 323-346.

Chin, W. W., & Dibbern, J. (2006) A permutation based procedure for multi-group PLS analysis results of tests of differences on simulated data and cross-cultural analysis of the sourcing of information system services between Germany and the USA. In J. P. L. Mangin & J. V. Mallou (Eds.) *Modelización con estructuras de covarianzas en ciencias sociales: temas esenciales, avanzados y aportaciones especiales* (pp. 501-517). Netbiblo.

Chin, W., Thatcher, J. B., & Wright, R. T. (2012). Assessing common method bias: Problems with the ULMC technique. *MIS Quarterly, 36*(3), 1003-1019.

Chiu, H.-C., Hsieh, Y.-C., Roan, J., Tseng, K.-J., & Hsieh, J.-K. (2011). The challenge for multichannel services: Cross-channel free-riding behavior. *Electronic Commerce Research and Applications, 10*(2), 268-277.

Cieslik, A. (2011). Where Do You Prefer to Work? How the Work Environment Influences Return Migration Decisions from the United Kingdom to Poland. *Journal of Ethnic and Migration Studies, 37*(9), 1367-1383.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression-correlation analysis for the behavioral sciences.* Lawrence Erlbaum.

Collopy, F. (1996) Biases in retrospective self-reports of time use: An empirical study of computer users. *Management Science, 42*(5), 758-767.

de Jong, G. F., & Fawcett, J. T. (1981). Motivations for migration: an assessment and a value-expectancy research model. In G. F. de Jong & R. W. Gardner (Eds.), *Migration decision making: Multidisciplinary approaches to microlevel studies in developed and developing countries* (pp. 13-58). Pergamon.

Devaraj, S., Easley, R. F., & Crant, J. M. (2008). How does personality matter? Relating the five-factor model to technology acceptance and use. *Information Systems Research, 19*(1), 93-105.

Dibbern, J., & Chin, W. W. (2005). *Multi-group comparison: Testing a PLS model on the sourcing of application software services*

across Germany and the USA using a permutation based algorithm. Schäffer-Poeschel.

Dustmann, C., & Weiss, Y. (2007). Return migration. theory and empirical evidence from the UK. *British Journal of Industrial Relations, 45*(2), 236-256.

Eckhardt, A., Laumer, S., Maier, C., & Weitzel, T. (2016) The effect of personality on IT personnel's job-related attitudes. Establishing a dispositional model of turnover intention across IT job types. *Journal of Information Technology, 31*(1), 48-66.

Emami, S. (2017). Returning to social media and how I can't explain why I did it. *Medium.* https://medium.com/@semami/returning-to-social-media-and-how-i-cant-explain-why-i-did-it-258c3caaa029.

eMarketer (2018). Facebook losing younger users. But not all are migrating to Instagram. https://www.emarketer.com/content/facebook-losing-younger-users-at-even-faster-pace.

Fahlman, S. A., Mercer-Lynn, K. B., Flora, D. B., & Eastwood, J. D. (2013). Development and validation of the multidimensional state boredom scale, *Assessment*, *20*(1), 68-85.

Fielding, N., & Schreier, M. (2001). *Introduction: on the compatibility between qualitative and quantitative research methods*. http://www.qualitative-research.net/index.php/fqs/article/view/965/2107

Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin, 51*(4), 327-359.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Frier, S. (2018). Facebook really wants you to come back. *Bloomberg*. https://www.bloomberg.com/news/features/2018-01-31/facebook-really-wants-you-to-come-back.

Fu, J.-R. (2011). Understanding career commitment of IT professionals: Perspectives of push-pull-mooring framework and investment model. *International Journal of Information Management, 31*(3), 279-293.

Gerow, J. E., Ayyagari, R., Thatcher, J. B., & Roth, P. L. (2017). Can we have fun @ work? The role of intrinsic motivation for utilitarian systems. *European Journal of Information Systems, 22*(3), 360-380.

Gerrard P., & Cunningham, J. B. (2004). Consumer switching behavior in the Asian banking market. *Journal of Services Marketing, 18*(3), 215-223.

Ghasrodashti, E. K. (2018). Explaining brand switching behavior using pull-push-mooring theory and the theory of reasoned action. *Journal of Brand Management, 25*(4), 293-304.

Gmelch, G. (1980). Return migration. *Annual review of anthropology, 9*, 135-234.

Gómez, R. (1998). The nostalgia of virtual community. *Information Technology & People, 11*(3), 217-234.

Haldorai, K., Kim, W. G., Pillai, S. G., Park, T., & Balasubramanian, K. (2019). Factors affecting hotel employees' attrition and turnover: Application of pull-push-mooring framework. *International Journal of Hospitality Management, 83*, 46-55.

Harmon, M. E. (2015). Computing as context: Experiences of dis/connection beyond the moment of non/use (Unpublished doctoral dissertation), University of California, Irvine, CA.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43,* 115-135.

Hon, A. H. Y., Bloom, M., & Crant, J. M. (2014). Overcoming resistance to change and enhancing creative performance. *Journal of Management, 40*(3), 919-941.

Hong, W., Chan, F. K. Y., Thong, J. Y. L., Chasalow, L. C., & Dhillon, G. (2014). A framework and guidelines for context-specific theorizing in information systems research. *Information Systems Research, 25*(1), 111-136.

Hou, A. C. Y., Chern, C.-C., Chen, H.-G., & Chen, Y.-C. (2011). "Migrating to a new virtual world": Exploring MMORPG switching through human migration theory. *Computers in Human Behavior, 27*(5), 1892-1903.

Hu, T., & Kettinger, W. J. (2008). Why people continue to use social networking services: Developing a comprehensive model. *Proceedings of the 29th International Conference on Information Systems*.

Hu T., Poston, R. S., & Kettinger, W. J. (2011). Nonadopters of online social network services: Is it easy to have fun yet? *Communications of the Association for Information Systems, 29* Article 25.

Hulland, J. S. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal, 20*(2), 195-204.

Hwang, H. S., Shim, J. W., & Park, S. B. (2019). Why we migrate in the virtual world: factors affecting switching intentions in SNS. *Information, Communication & Society, 22*(14), 2127-2137.

Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review, 31*(2), 386-408.

Jokela, M. (2009). Personality predicts migration within and between U.S. states. *Journal of Research in Personality, 43*(1), 79-83.

Jones, Q., Ravid, G., and Rafaeli, S. 2004. "Information Overload and the Message Dynamics of Online Interaction Spaces: A theoretical model and empirical exploration," *Information Systems Research* (15:2), pp. 194-210.

Jung, J., Han, H., & Oh, M. (2017). Travelers' switching behavior in the airline industry from the perspective of the push-pull-mooring framework. *Tourism Management, 59*, 139-153.

Karahanna, E., Straub, D. W., & Chervany, N. L. (1999). Information technology adoption across time: A cross-sectional comparison of pre-adoption and post-adoption beliefs. *MIS Quarterly, 23*(2), 183-213.

Karr-Wisniewski, P., & Lu, Y. (2010). When more is too much: Operationalizing technology overload and exploring its impact on knowledge worker productivity," *Computers in Human Behavior, 26*(5), 1061-1072.

Keach, S. (2018). Facebook LOSES users for the first time ever, but Mark Zuckerberg doesn't care. *The Sun*. https://www.thesun.co.uk/tech/5474575/facebook-loses-users-mark-zuckerberg-latest/.

Kim, K. H. (2005). The relation among fit indexes, power, and sample size in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal, 12*(3), 368-390.

Kim, S. S., & Malhotra, N. K. (2005). A longitudinal model of continued is use: An integrative view of four mechanisms underlying postadoption phenomena. *Management Science, 51*(5), 741-755.

King, R. (2015). *Return migration and regional economic problems.* Taylor & Francis.

Lai, J. Y., Debbarma, S., & Ulhas, K. R. (2012) An empirical study of consumer switching behaviour towards mobile shopping: A push-pull-mooring model. *International Journal of Mobile Communications, 10*(4), 386-404.

Lampe, C., Vitak, J., & Ellison, N. (2013) Users and nonusers: Interactions between levels of adoption and social capital. *Proceedings of the 2013 Conference on CSCW*, 809-820.

Landis, J. R., & Koch, G. G. (1977). "The Measurement of Observer Agreement for Categorical Data," *Biometrics, 33*(1), 159-174.

Laumer, S., Maier, C., Eckhardt, A., & Weitzel, T. (2015) User personality and resistance to mandatory information systems in organizations: A theoretical model and empirical test of dispositional resistance to change. *Journal of Information Technology, 31*(1), 67-82.

Lee, E. S. (1966). A Theory of Migration. *Demography, 3*(1), 47-57,

Lehto, X. Y., Park, O.-J., & Gordon, S. E. (2015). Migrating to New Hotels: A Comparison of Antecedents of Business and Leisure Travelers' Hotel Switching Intentions. *Journal of Quality Assurance in Hospitality & Tourism, 16*(3), 235-258

Liang, H., Saraf, N., Hu, Q., & Xue, Y. (2007). Assimilation of enterprise systems: The effect of institutional pressures and the mediating role of top management," *MIS Quarterly, 31*(1), 59-87.

Lindell, M. K., & Whitney, D. J. (2001). "Accounting for common method variance in cross-sectional research designs," *Journal of Applied Psychology, 86*(1), 114-121.

Lowry, P. B., D'Arcy, J., Hammer, B., & Moody, G. D. (2016). "Cargo Cult" science in traditional organization and information systems survey research: A case for using nontraditional methods of data collection, including Mechanical Turk and online panels, *The Journal of Strategic Information Systems, 25*(3), 232-240.

Lu Y., Zong, L., & Schissel, B. (2009). To Stay or Return: Migration Intentions of Students from People's Republic of China in Saskatchewan, Canada. *Journal of international migration and integration, 10*(3), 283-310.

Maier, C. (2020). Overcoming pathological IT use: How and why IT addicts terminate their use of games and social media. *International Journal of Information Management, 51,* 102053.

Maier, C., Laumer, S., & Eckhardt, A. (2011). Dispositional resistance to change and social network site adopters' and non-adopters' attitudinal beliefs: An empirical analysis. *Proceedings of the 19th European Conference on Information Systems*.

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2012a). Online social networks as a source and symbol of stress: An empirical analysis. *Proceedings of the 33rd International Conference on Information Systems*.

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2012b). Using user personality to explain the intention-behavior gap and changes in beliefs: A longitudinal analysis. *Proceedings of the 33rd International Conference on Information Systems*.

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2015a) Giving too much social support. Social overload on social networking sites. *European Journal of Information Systems, 24*(5), 447-464,

Maier, C., Laumer, S., Weinert, C., & Weitzel, T. (2015b). The effects of technostress and switching stress on discontinued use of social networking services: a study of Facebook use. *Information Systems Journal, 25*(3), 275-308.

Maier C, Laumer S, Wirth J., & Weitzel, T. (2019). Technostress and the Hierarchical Levels of Personality: A Two-wave Study with Multiple Data Samples. *European Journal of Information Systems.*

Maier, C., Mattke, J., Pflügner, K., & Weitzel, T. (2020) Smartphone use while driving: A fuzzy-set qualitative comparative analysis of personality profiles influencing frequent high-risk smartphone use while driving in Germany. *International Journal of Information Management 55*, 102207.

Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common method variance in is research: a comparison of alternative approaches and a reanalysis of past research, *Management Science, 52*(12), 1865-1883.

Mattke, J., Maier, C., Reis, L., & Weitzel, T. (2020). Bitcoin investment: a mixed methods study of investment motivations. *European Journal of Information Systems, 30*(3), 261-285.

McCrae, R. R., & Costa, P. T. (2006). *Personality in adulthood. A five-factor theory perspective.* Guilford Press.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2013). *Qualitative data analysis. A methods sourcebook,* SAGE.

Moon, B. (1995). Paradigms in migration research. Exploring "moorings" as a schema. *Progress in Human Geography, 19*(4), 504-524.

Morrison, S. L., & Gomez, R. (2014) Pushback: Expressions of resistance to the "everytime" of constant online connectivity. *First Monday* 19(8), https://firstmonday.org/article/view/4902/4106

Myers, D. G. (2004). *Psychology.* Worth Publishers,

Myers, M. D. (2009). *Qualitative research in business and management.* SAGE.

Nahm, A. Y., Solís-Galván, Rao, S. S., & Ragu-Nathan, T. S. (2002). The q-sort method: assessing reliability and construct validity of questionnaire items at a pre-testing stage, *Journal of Applied Statistics, 1*(1), 114-125.

Nimako, S. G., & Winneba, K. (2013). Consumer Switching Behaviour: A Theoretical Review and Research agenda. *Research Journal of Social Science and Management, 2*(3), 74-85.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*, McGraw-Hill.

Ojiaku, O. C., Nkamnebe, A. D., & Nwaizugbo, I. C. (2018). Determinants of entrepreneurial intentions among young graduates: perspectives of push-pull-mooring model. *Journal of Global Entrepreneurship Research, 8*(1), 1-17.

Oliver, R. L., & Westbrook, R. A. (1982). The factor structure of satisfaction and related postpurchase behavior. In R. L. Day & H. K. Hung (Eds.), *New Findings on Consumer Satisfaction and Complaining.* University of Indiana Press.

Oreg, S. (2003). Resistance to Change: Developing an Individual Differences Measure. *Journal of Applied Psychology, 88*(4), 680-693.

Oreg, S. (2006). Personality, context, and resistance to organizational change. *European Journal of Work and Organizational Psychology, 15*(1), 73-101.

Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model, *International Journal of Electronic Commerce, 7*(3), 69-103.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review

and recommended remedies, *Journal of Applied Psychology*, *83*(5), 879-903.

Pflügner, K., Maier, C., Mattke, J., & Weitzel, T. (2020). Personality profiles that put users at risk of perceiving technostress: A qualitative comparative analysis with the big five personality traits. *Business & Information Systems Engineering*.

Polites, G. L., & Karahanna, E. (2012). Shackled to the status quo: The inhibiting effects of incumbent system habit, switching costs, and inertia on new system acceptance. *MIS Quarterly, 36*(1), 21-42.

Polites, G. L., & Karahanna, E. (2013). The embeddedness of IS habits in organizational and individual level routines: Development and disruptions. *MIS Quarterly, 37*(1), 221-246.

Ringle, C. M., Wende, S., & Becker, J.-M. (2014). *SmartPLS 3. Bönningstedt: SmartPLS.* http://www.smartpls.com.

Rogerson, P. (2001). *Statistical methods for geography.* SAGE.

Shaban, H. (2018). Shareholder sues Facebook after stock plunges. *Washington Post.* https://www.washingtonpost.com/technology/2018/07/30/shareholder-sues-facebook-after-stock-plunges/?utm_term=.fad1a0d5b893.

Speare, A., Kobrin, F., & Kingkade, W. (1982). The Influence of Socioeconomic Bonds and Satisfaction on Interstate Migration. *Social Forces, 61*(2), 551-574.

Steelman, Z. R., Hammer, B. I., & Limayem, M. (2014). Data collection in the digital age: innovative alternatives to student samples. *MIS Quarterly*, *38*(2), 355-379.

Stein, M.-K., Newell, S., Wagner, E. L., & Galliers, R. D. (2015). Coping with information technology: Mixed emotions, vacillation and non-conforming use patterns. *MIS Quarterly, 39*(2), 367-392.

Stephenson, W. (1953). *The study of behaviour: Q-technique and its methodology*. University of Chicago Press.

Stimson, R. J., & Minnery, J. (1998). Why People Move to the "Sun-belt": A Case Study of Long-distance Migration to the Gold Coast, Australia. *Urban Studies, 35*(2), 193-214.

Straub, D. W., & Burton-Jones, A. (2007) Veni, Vidi, Vici: Breaking the TAM Logjam. *Journal of the Association for Information Systems, 8*(4), 223-229.

Sun, H. (2013). A longitudinal study of herd behavior in the adoption and continued use of technology. *MIS Quarterly*, *4*(37), 1013-1041.

Sun, Y., Liu, D., Chen, S., Wu, X., Shen, X.-L., & Zhang, X. (2017). Understanding users' switching behavior of mobile instant messaging applications: An empirical study from the perspective of push-pull-mooring framework. *Computers in Human Behavior* 75, 727-738.

Tabor, A. S., Milfont, T. L., & Ward, C. (2015). The migrant personality revisited: Individual differences and international mobility intentions. *New Zealand Journal of Psychology*, *44*(2), 89-95.

Tarafdar, M., Maier, C., Laumer, S., & Weitzel, T. (2020). Explaining the link between technostress and technology addiction for social networking sites: A study of distraction as a coping behavior. *Information Systems Journal, 30*(1), 96-124.

Tarafdar, M., Tu, Q., & Ragu-Nathan, T. S. (2010). Impact of technostress on end-user satisfaction and performance. *Journal of Management Information Systems, 27*(3), 303-334.

TechCrunch (2011). Amazingly,MySpace's decline is accelerating. http://techcrunch.com/2011/03/23/amazingly-myspacesdecline-

Te'eni D. (2017). Current issue and future submissions, contextualized. *European Journal of Information Systems, 24*(4), 361-363

Thatcher, J. B., & Perrewé, P. L. (2002). An empirical examination of individual traits as antecedents to computer anxiety and computer self-efficacy. *MIS Quarterly, 26*(4), 381-396.

Thatcher, J. B., Wright, R. T., Zagenczyk, T. J., & Klein, R. (2018). Mindfulness in Information Technology Use: Definitions, Distinctions, and a New Measure. *MIS Quarterly, 42*(3), 831-847.

Thompson, R. F., & Kim, J. J. (1996). Memory systems in the brain and localization of a memory. *Proceedings of the National Academy of Sciences of the United States of America, 93*(24), 13438-13444.

Turel O., & Serenko A (2012) The benefits and dangers of enjoyment with social networking websites. *European Journal of Information Systems, 21*(5), 512-528.

van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly, 28*(4), 695-704.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, & emotion into the technology acceptance model. *Information Systems Research, 11*(4), 342-365.

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly, 37*(1), 21-54.

Venkatesh, V., Davis, F. D., & Morris, M. G. (2007). Dead or alive? The development, trajectory and future of technology adoption research. *Journal of the Association for Information Systems, 8*(4), 268-286.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157-178.

Wagner, K., & Molla, R. (2018). Facebook lost around 2.8 million U.S. users under 25 last year. 2018 won't be much better. *Recode.* https://www.recode.net/2018/2/12/16998750/facebooks-teen-users-decline-instagram-snap-emarketer.

Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality and Social Psychology, 91*(5), 975-993

Williams, L. J., Edwards, J.R., & Vandenberg, R.J. (2003). Recent advances in causal modeling methods for organizational and management research. *Journal of Management, 29*(6), 903-936.

Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information Systems Research, 16*(1), 85-102.

Woo, S. E., Keith, M., & Thornton, M. A. (2015). "Amazon Mechanical Turk for industrial and organizational psychology: advantages, challenges, and practical recommendations. *Industrial and Organizational Psychology, 8*(2), 171-179.

Wright, R. T., Campbell, D. E., Thatcher, J. B., & Roberts, N. (2012). Operationalizing multidimensional constructs in structural equation modeling: Recommendations for IS research. *Communications for the Association for Information Systems, 30*(23), 367-412.

Wu, K., Vassileva, J., & Zhao, Y. (2017). Understanding users' intention to switch personal cloud storage services: Evidence from the Chinese market. *Computers in Human Behavior 68*, 300-314.

Xu, X., Thong, J. Y. L., & Tam, K. Y. (2017). Winning back technology disadopters. testing a technology readoption model in the context of mobile internet services. *Journal of Management Information Systems, 34*(1), 102-140.

Xu, Y., Yang, Y., Cheng Z., & Lim, J. (2014). Retaining and attracting users in social networking services: An empirical investigation of cyber migration. *The Journal of Strategic Information Systems 23*(3), 239-253,

Yin, R. K. (2009). *Case study research*: *Design and methods*. SAGE.

Yu, C.-S., Chantatub, W., & Mendi, B. (2017). Factors for user intention to switch browsers: a cross-national survey. *International Journal of Electronic Commerce Studies, 8*(2), 108-133.

Zhang, H., Lu, Y., Gupta, S., Zhao, L., Chen, A., & Huang, H. (2014). Understanding the antecedents of customer loyalty in the Chinese mobile service industry: A push-pull-mooring framework. *International Journal of Mobile Communications, 12*(6), 551-577.

Zhang, K. Z. K., Cheung, C. M. K., & Lee, M. K. O. (2012). Online service switching behavior: The case of blog service providers. *Journal of Electronic Commerce Research, 13*(3), 184-197.

Zhao, Y. (2002). Causes and consequences of return migration. Recent evidence from China. *Journal of Comparative Economics,* 30(2), 376-394.

Appendix A: Study 1 – Qualitative Study Design, Sampling Strategy, Data Collection, Analysis, and Coding Scheme

Study Design and Sampling Strategy

We drew participants from a panel of Facebook users that we established in 2010. The panel was initially set up to collect data about individuals' perceptions about and use of Facebook year-by-year, so that we could track how perceptions are updated or behavior changes over time.

The panel was built using a multiyear process. We initially sent an email invitation to potential participants. Those email addresses were collected earlier as part of a partnership with a large international company that surveys 5,000 to 10,000 individuals per year. Our partner asked us to manage data collection and allowed us include a question for individuals to "opt-in" to participate in further research projects. Using this method, we constituted a panel of over 5,000 individuals.

Each year, we asked some stabile questions in order to track changing perceptions and collect data on new research topics. Examples of stable questions are social media use, demographics, role of technology in participants' lives, and so on. Examples of new research topics include quitting technology use, resumption (the focus of this study), and so forth. Generally speaking, we sourced new research topics based on press reports or academic literature.

For this research, we contacted participants who reported discontinuing the use of Facebook to ask them whether we could interview them to talk about their experience while using and while no longer using Facebook. In addition, we also collected data concerning panel participants' discontinuation of use intentions so that we had an indicator of whether participants might be likely to discontinue in the future. We also contacted participants with high discontinuous use intentions, clearly stating that we were looking for participants for our research projects and asked them to contact us if they decided to stop using Facebook and were willing to be surveyed for our research projects. From this pool of participants, we interviewed 18 long-standing ex-users who had discontinued Facebook at least six months prior and 23 recent ex-users who contacted us following discontinuation.

Sample Characteristics

Using our research panel and sampling strategy, we recruited 41 ex-users of Facebook who were living in Germany. In our sample, gender was almost equally distributed (53.6% female) and the participants' mean age was 30.2 years (range: 16-53). Less than 50% were high school students or university students in various degree programs including information systems, management, psychology, and social science. Of the 41 participants, 23 were recent ex-users who had discontinued the use Facebook within the past two weeks and 18 individuals were long-standing ex-users who had stopped using Facebook for over six months and up to four years prior to the study.

Critical Incident Technique

In our participant interviews, we used the critical incident technique (Flanagan, 1954) to identify resumption antecedents during the qualitative approach. We followed Gremler's (2004) guidelines. After defining our research problem and question, our qualitative study focused on individuals' thoughts, emotions, beliefs, and behaviors with regard to Facebook and in terms of not using it anymore. We developed and used a survey instrument that contained questions like "What were the three most important positive experiences that made you satisfied with using Facebook?" and "What were the three most important negative experiences that made you dissatisfied with not using Facebook anymore?" We also asked follow-up questions to identify how and why these critical incidents happened and how the participants and other people involved behaved in the circumstances. Hence, as suggested by Flanagan (1954), we asked each participant about critical occurrences while they were no longer using Facebook and invited them to share stories, thoughts, emotions, beliefs, and behaviors related to using and not using Facebook. Using this survey instrument, we interviewed 41 ex-users of Facebook. Each interview was conducted by two researchers of our group and lasted between one and two hours.

The responses were analyzed to identify salient beliefs. First, we recorded and transcribed each interview as the basis for the qualitative data analysis (Fielding & Schreier, 2001; Yin, 2009), which entailed paraphrasing, generalizing, classifying, and coding the data to identify frequently mentioned beliefs. This process is described in more detail below.

Coding Process

By using the critical incident technique, we identified salient beliefs resulting in dissatisfaction while not using Facebook and sought to elicit whether Facebook use was satisfactory. Furthermore, we also aimed at identifying resumption intentions and behaviors in our interviews. To do so, we followed qualitative data coding procedures (Miles et al., 2013; Myers, 2009) and took a data-driven approach that enabled us to identify and describe the salient beliefs and resumption behavior. First,

we transcribed the interviews and entered them into a software coding program. Then, we searched for positive statements concerning Facebook use and for negative statements associated with no longer using it, seeking keywords indicating that participants evaluated the use situation as positive and the nonuse as negative. Our aim was to identify statements that describe why individuals are in a positive, satisfying state related to Facebook use as well as why they are in a negative, dissatisfying state when no longer using it. Moreover, we searched for keywords indicating resumption. We then used descriptive coding (Myers, 2009) to compare and contrast similar and different salient beliefs and interpretive coding to group these descriptive codes. The process of abstraction is illustrated in Table A1.

Table A1. Coding Scheme

Data examples / quotation	Descriptive coding	Interpretive coding
I noticed that communication with some of my friends halted after I stopped using Facebook.	Lower number of conversational partners; Less contact to weak ties; Less contact talking with strong ties	Communication underload
Now that I am no longer using Facebook, I have no way to communicate with my friends from Budapest.		
No longer using Facebook means that I talk less with my sister. … This is a pity as she just gave birth to her daughter.		
My aunt lives in Berlin … Not using Facebook causes us to communicate less.		
I am a big fan of handball and since TV and newspapers do not regularly report on games or player transfers, as is common for football, I follow my favorite team on Facebook. At the moment, I have no idea how to get this information.	Fewer information sources	Information underload
I followed some star chef on Facebook to receive the latest recipes. Without Facebook, I am struggling to get this information.		
Some of my friends warned me that my offline social life would suffer from no longer using Facebook … And indeed, it has suffered.	Feelings of being socially excluded; Fear of being forgotten	Social isolation
It is just a feeling, but it feels like being cut off from the world ... Since others don't read any news or messages from me, I feel like I am being buried in oblivion. I'm fearing the moment my friends meet me in town without saying hello to me—because they don't remember me—or ask me what my name is.		
I always used [Facebook] on the toilet. Right now, I have no idea what to do there.	Having moments when not knowing what to do	Boredom
Usually, I use Facebook on the bus while traveling to the university. Since I stopped using it, I feel bored and I do not know what to do.		
It is a challenge to find alternatives to using Facebook.	No single substitute; Alternatives are time-consuming and expensive; Alternatives are complicated	Replacement overload
Chatting with friends via SMS annoys them because they don't have an SMS flat rate anymore.		
Using WhatsApp is not very pleasant because you have to use the smartphone touchscreen. The same is true when writing an SMS or using a tablet. It is just impractical.		
From this new perspective, I would say that Facebook was rather useful in several ways.	Useful tool	Perceived usefulness of prior SNS use
[Using] Facebook was a good tool for summarizing a lot of information.		
Some of the posts shared by my friends were very funny.	Funny posts; Enjoyment	Perceived enjoyment of prior SNS use
Facebook helps distract me from work and lets me enjoy some free time between appointments so that I am in a good mood.		

In order to ensure the validity of our qualitative study, we used established validation criteria (Venkatesh et al., 2013) throughout the methodological setting and coding process. First, we accounted for design validity by describing our method. This ensured that our research is highly transferable (e.g., to explain why ex-users of other voluntary IT, such as WhatsApp, resume using it) and credibility. Second, we accounted for analytical validity. This is reflected in our descriptive coding approach, which guarantees high theoretical validity and transparent and plausible coding. Third, we accounted for inferential validity as the coding process was done and repeated by three researchers who confirmed the results. Moreover, we view the interpretive coding results as highly plausible because the identified salient beliefs, particularly the ones causing use-related satisfaction, have also been studied in other IS research fields. Using this method, we found evidence for five relevant beliefs during nonuse (communication underload, information underload, replacement overload, social isolation, boredom) and two relevant beliefs during use (perceived usefulness of prior SNS use, perceived enjoyment of prior SNS use) that we present in the main paper. These beliefs are used in our quantitative studies.

Appendix B: Study 2 – Quantitative Study, Scale Development, Two Quantitative Samples and Measurement Model

Scale Development of Nonuse Beliefs

Step 1: Item development of nonuse beliefs. To develop the scales reflecting the identified nonuse beliefs, we scanned articles from the field of IS and psychological research to generate a pool of items for measuring the new constructs. We identified articles focusing on related constructs (e.g., Fahlman et al., 2013; Karr-Wisniewski & Lu, 2010) or on constructs reflecting the opposite extreme (e.g., Jones et al., 2004; Maier et al., 2015b) and adapted them to our research context. We also interviewed 37 individuals—none of them participated in one of our other studies—to develop additional items or redefine the adapted items. As a result, we had a pool of 23 items that reflected both the authors' and the interviewees' understanding of the constructs of information underload, communication underload, social isolation, and boredom.

Step 2: Assessing reliability and construct validity of the new items. After developing this pool of items, Nahm et al. (2002) recommend validating them before using them in a survey. We followed a two-step approach called the q-sort method, which is derived from Q-methodology (Stephenson, 1953). First, individuals sorted items according to different constructs. After calculating ratios concerning the agreements, incorrect answers were reworded or deleted in a second step and these steps were repeated until a satisfactory level was reached.

To perform this step, we distributed 72 scale validation surveys among students living in Germany. Their task was to assign the 27 new items to one of the constructs. First, we presented the new concepts with the definitions to each participant. Then we gave them two fictive examples to illustrate how items should be assigned to the constructs. For example, we indicated that the fictive item "*No longer using Facebook means that my life is boring*" should be assigned to one of the four constructs or a field named "no assignment" if the participants could not assign it. For this example, the construct boredom would be the "*correct"* answer. Finally, the students assigned each of the 23 newly developed items to these constructs.

On the basis of 72 responses, we calculated ratios to which participants correctly matched the newly developed items to the constructs. As suggested in prior research (Landis & Koch, 1977; Nahm et al., 2002), we rejected all items assigned correctly by less than 61% of the respondents. Hence, three items (Bor3; ComU3; ComU5) had to be removed (Table B1) and we concluded that the identified items had high semantic coherence.

Table B1. Assessing Reliability and Construct Validity (in percentages) and Rotated Component Matrix

	Q-sorting results					Factor analysis results			
						Component			
	InfU	ComU	SIsol	Bor	No assignment	1	2	3	4
Bor1	0	0	0	**98.6**	0			**0.89**	
Bor2	1.4	0	0	**98.6**	0			**0.85**	
Bor3	6.9	4.2	34.7	51.4	2.8	*not used in that analysis*			
Bor4	0	0	1.4	**98.6**	0			**0.70**	
Bor5	0	0	0	**97.2**	0			**0.86**	
ComU1	0	**88.9**	11.1	0	0		**0.70**		
ComU2	1.4	**79.2**	16.7	0	2.8		**0.73**		
ComU3	0	55.6	5.6	0	16.7	*not used in that analysis*			
ComU4	0	**68.1**	31.9	0	0		**0.81**		
ComU5	0	41.7	38.9	0	19.4	*not used in that analysis*			
ComU6	0	**75**	23.6	0	1.4		**0.76**		
ComU7	1.4	**84.7**	13.9	0	0		**0.80**		
InfU1	**88.9**	4.2	6.9	0	0	**0.88**			
InfU2	**98.6**	0	0	1.4	0	**0.71**			
InfU3	**94.4**	0	2.8	0	2.8	**0.76**			
InfU4	**91.7**	2.8	5.6	0	0	**0.72**			
InfU5	**95.8**	2.8	0	0	1.4	**0.73**			

InfU6	**95.8**	0	0	0	1.4	**0.81**			
SIsol1	0	5.6	**93.1**	0	1.4				<0.70
SIsol2	0	0	**100**	0	0				**0.77**
SIsol3	0	0	**98.6**	0	1.4				**0.76**
SIsol4	0	0	**100**	0	0				**0.76**
SIsol5	1.4	6.9	**84.7**	0	6.9				**0.80**
Eigenvalues						12.5	2.21	1.99	1.55

Note: Bold numbers indicate that the statistical value is higher than the expected threshold and we had no reason to remove the item in that step. Extract method: principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in six iterations. Factor cross-loadings below 0.5 are not shown

Step 3: Exploratory and confirmatory factor analysis. An exploratory factor analysis was then used to provide empirical evidence that these items belong together statistically. Based on the answers of 89 individuals, results revealed a four-factor structure (see eigenvalues), with the four factors of information underload, social isolation, communication underload, and boredom falling into one component each. However, one item had to be removed (social isolation-1) as the corresponding value was smaller than the recommended threshold of 0.7 (see Table B1). Then, the remaining items were used to perform a confirmatory factor analysis and the four-factor structure of the exploratory factor analyses was confirmed.

Step 4: Construct reliability. To ensure internal consistency, Cronbach's alpha values were calculated. The resulting values are all above the recommended minimal threshold of 0.7 (Hair 1995; Nunnally & Bernstein, 1994; see Table B2: Reliability).

Step 5: Discriminant and convergent validity. Again, the data sample of 89 individuals was used to investigate discriminant and convergent validity. For this purpose, we conducted a first-order correlated measurement model in AMOS 21. Here, no significant high-error correlation among any items (the highest modification index is 9.325 between InfU-1 and InfU-6) was identified. Table B2 illustrates that composite reliability (CR) values are above 0.7, average variance extracted (AVE) above 0.5, and CR values are higher than AVE values so that the convergent validity were characterized as good. As maximum shared squared variance (MSV) values are smaller than the corresponding AVE values and the average shared squared variance (ASV) values are smaller than AVE values, the discriminant validity were also characterized as good (see Table B2).

Table B2. Discriminant and Convergent Validity

	Reliability	CR	AVE	MSV	ASV
Boredom	0.942	0.948	0.820	0.490	0.347
Information underload	0.937	0.933	0.700	0.607	0.427
Communication underload	0.911	0.908	0.664	0.607	0.456
Social isolation	0.943	0.946	0.815	0.497	0.445

Based on this analysis, the resulting items are included in Table B5.

Scale Development of Resumption Intention and Behavior

As resumption intention and behavior items are related to previous behavioral patterns (e.g., continuance intention, discontinuation intention), we developed a pool of items for resumption intention and behavior and discussed the resulting items with six students living in Germany. After redefining them, we discussed the items with individuals out of the university context as well as with ex-users. This was necessary since these individuals needed to understand these items in surveys and rate them.

This process resulted in three items for resumption intention and one item for resumption behavior. To assess reliability and validate the items, we again followed a q-sort method (Stephenson, 1953) as presented in the steps above (see "Scale development of nonuse beliefs"). Overall, 32 students participated in the q-sort method. Their task was to assign the new items as well as related items (e.g., intention to adopt, adoption behavior, intention to continue, continuance behavior, intention to discontinue, discontinuance behavior) to one of the constructs. On the basis of 32 responses, we calculated ratios to which participants correctly matched the newly developed items to the constructs. As suggested in prior research (Landis & Koch, 1977; Nahm et al., 2002), we rejected all items assigned correctly by less than 61% of the respondents; but, as summarized in Table B3, no rejections were necessary.

Table B3. Assessing Reliability and Construct Validity (in percentages)

	Resumption intention	Resumption behavior	No assignment / Assignment to other constructs
ResInt1	**96.9%**	3.1%	0.0%
ResInt2	**93.8%**	3.1%	3.1%
ResInt3	**90.6%**	0.0%	9.4%
ResBeh1	0.0%	**100.0%**	0.0%

The final items are included in Table B5.

Two Quantitative Samples

We here provide details about our two samples in the quantitative study. Sample 1 focused on recent ex-users and Sample 2 focused on long-standing ex-users. Table B4 provides information about which constructs were collected in which survey of the longitudinal data collection procedure, using three surveys for each sample.

Table B4. Constructs Surveyed in the Different Surveys in the Longitudinal Setting (* means that the construct was developed for this research)

Survey 1	Survey 2	Survey 3
Communication underload*	Resumption intention*	Resumption behavior*
Information underload*		
Social isolation*		
Boredom*		
Replacement overload		
Nonuse-related dissatisfaction		
Perceived usefulness of prior SNS use		
Perceived enjoyment of prior SNS use		
Use-related satisfaction		
Dispositional resistance to change		
Control variables		

Sample 1: Recent Ex-Users

In this section, we describe the design and sampling strategy of Sample 1, which was used to collect data about recent ex-users and thus about individuals who discontinued using Facebook and then immediately participated in our study.

Study Design and Sampling Strategy

For Sample 1, we entered into dialog with recent ex-users for three weeks after they stopped using Facebook and adapted the procedure described for collecting qualitative data accordingly. Specifically, we contacted individuals with high discontinuous use intentions from our Facebook panel and asked them to contact us once they had decided to discontinue Facebook. After they informed us that they had closed their account and were ex-users, we invited them to participate in three surveys. The first survey capturing beliefs and (dis)satisfaction was sent out after ten days, the second survey measuring resumption intention was sent out after two weeks later and the third survey collecting resumption behavior was sent out after three weeks (see Figure B1).

We used control variables to ensure that our final data sample only included individuals who had not resumed using Facebook before the second survey because it is not possible to collect resumption intention from resumed users who are no longer ex-users.

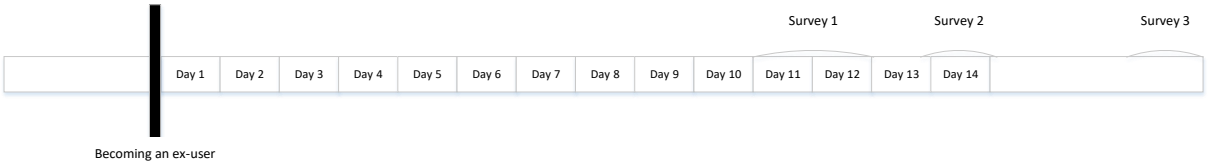


Figure B1. Design of Sample 1

We repeated this procedure for each participant, thus collecting data at different points in time, because not all participants stopped using Facebook on the same day. Hence, this procedure was performed several times in 2016 and we entered into dialog with each participant individually as they contacted us.

Sample Characteristics

We recruited a new set of recent ex-users than those who participated in the qualitative study (Study One). In all, 118 participants agreed to participate in three surveys. Gender was equally distributed, the participants' mean age was 30.2 years (range: 15-47), and all participants lived in Germany. On average, participants had 301 virtual friends on the SNS. Before discontinuing Facebook use, participants spent an average of approximately 40 minutes per day on Facebook and used the SNS for various purposes. The demographic characteristics are summarized in the main document in Table 6.

Sample 2: Long-Standing Ex-Users

In this section, we describe the design and sampling strategy of Sample 2, to collect data of long-standing ex-users.

Study Design and Sampling Strategy

The objective of our second sample was to survey individuals who had stopped using Facebook and deleted their accounts at least six months ago. Hence, we designed an empirical study to validate our research model. Again, our study was designed to collect data at three different points in time (Survey 1: salient beliefs, satisfaction, dissatisfaction, Survey 2: resumption intention, Survey 3: resumption behavior; see Figure B2) with two months in between Survey 1 and Survey 2, as well as between Survey 2 and Survey 3. We decided to wait several weeks between the surveys to ensure that participants had the opportunity to change their resumption intentions and, potentially, their behavior by resuming using Facebook.

Figure B2. Design of Sample 2

To gather data to evaluate the research model, we collected data using the online data panel Amazon Mechanical Turk (MTurk). Previous research in the field of IS (Lowry et al., 2016; Steelman et al., 2014) provides strong evidence that using such online crowdsourcing markets for data collection purposes is useful and provides a nontraditional sampling approach which results in samples with good psychometric properties. Research posits that MTurk data might be even better than collecting data by traditional approaches (Lowry et al., 2016). Since long-standing ex-users of Facebook are difficult to recruit, MTurk provides the possibility of contacting and recruiting them to participate in our surveys, so that we can understand resumption behavior.

We used MTurk to collect data at three different points in time and included extensive control questions to identify whether participants are ex-users. In the initial survey, we included questions to test whether participants (1) currently had a Facebook account, (2) had a Facebook account at some point, and (3) closed down their account in the past. We limited participation to suitable respondents. We also included control variables to check respondent attention (e.g., "Please answer Strongly Disagree for this item") and checked whether inconsistency existed in demographical data to eliminate invalid responses. Moreover, we only allowed individuals with a long-standing history of completed surveys to participate and we focused on collecting a US-based data sample as suggested in previous research (Lowry et al., 2016; Steelman et al., 2014).

Sample Characteristics

By using this sample strategy, we were able to recruit 181 long-standing ex-users living in Germany. We accompanied them throughout four months and three surveys. In all, more men than women participated in that survey and the average age was 33.4 years (range: 18-68). On average, participants had 227 virtual friends on the SNS. Before discontinuing Facebook use, participants spent an average of approximately 55.8 minutes per day on Facebook and used the SNS for various purposes. The demographic characteristics are summarized in the main document in Table 6.

Measurement Items, Model Validation, Common Method Bias, Controls, Measurement Invariance

We provide additional information necessary to assess the validity of the measurement model.

Table B5. Measurement Items and Loadings (n.a., means that the loading was under the threshold of 0.707). Measures of Controls Are Included in the Main Paper (except habit), as These Controls Are Single-Item Measures

Construct	Wording	Loading (Sample 1)	Loading (Sample 2)
Communication underload	No longer using Facebook has led to the fact that I communicate too little with my social environment.	0.918	0.874
	No longer using Facebook has led to the fact that desired conversations can no longer take place at any time.	0.870	0.83
	No longer using Facebook has led to the fact that I communicate with fewer individuals than I want to.	0.878	0.847
	Overall, no longer using Facebook has led to the fact that communication has deteriorated between me and my social environment.	0.913	0.886
	Overall, no longer using Facebook has led to the fact that I communicate less than I want to with my social environment.	0.929	0.906
Information underload	No longer using Facebook has led to the fact that I do not notice all the news from my social environment.	0.868	0.776
	No longer using Facebook has led to the fact that I get too little information.	0.911	0.922
	No longer using Facebook has led to the fact that I miss important news.	0.921	0.941
	No longer using Facebook has led to the fact that I miss important information.	0.899	0.940
	No longer using Facebook has led to the fact that I do not get enough information.	0.881	0.900
	No longer using Facebook has led to the fact that the variety of information I get has declined.	0.841	0.808
Social isolation	No longer using Facebook has led to the fact that I feel socially excluded.	0.956	0.911
	No longer using Facebook has led to the fact that I feel lonely.	0.963	0.941
	No longer using Facebook has led to the fact that I feel left out socially.	0.955	0.926
	No longer using Facebook has made meeting new people more difficult.	0.902	0.796
Boredom	Because I do no longer use Facebook, I sometimes feel bored.	0.937	0.904
	Because I do no longer use Facebook, I do not know what to do with time between activities.	0.965	0.912
	Because I do no longer use Facebook, my life is sometimes too empty.	0.918	0.942
	Overall, no longer using Facebook has contributed to the fact that I feel bored from time to time.	0.961	0.918
Replacement overload	I have to use too many different alternatives in order to interact in the usual extent with my social environment.	0.903	0.945
	I have to use too many different alternatives in order to stay in touch with my social environment.	0.926	0.934
	I have to use too many different alternatives in order to get information from my social environment.	0.881	0.912
	I have to use too many different alternatives in order to forward information to my social environment.	0.905	0.921
Nonuse-related dissatisfaction	I am very dissatisfied with not using Facebook.	0.940	0.930
	I am very unpleased with not using Facebook.	0.939	0.890
	I am very discontent with not using Facebook.	0.949	0.942
	I am absolutely terrible with not using Facebook.	0.950	0.920
	Overall, I am dissatisfied without Facebook.	0.976	0.913

Perceived enjoyment of prior SNS use	*Please evaluate the following statement about using Facebook from your current perspective*		
	Using Facebook is enjoyable.	0.830	0.916
	Using Facebook is pleasurable.	0.879	0.912
	Using Facebook is fun.	0.926	0.917
	Using Facebook is exciting.	0.804	0.834
	Using Facebook is interesting.	0.909	0.925
Perceived usefulness of prior SNS use	*Please evaluate the following statement about using Facebook from your current perspective*		
	Using Facebook is useful to stay in contact with friends.	0.831	0.952
	Using Facebook is useful to communicate with friends	0.864	0.957
	Overall, using Facebook is useful.	0.942	0.949
Use-related satisfaction	*Please evaluate the following statement about using Facebook from your current perspective*		
	I am very satisfied with using Facebook.	0.738	0.95
	I am very pleased with using Facebook.	0.861	0.949
	I am very content with using Facebook.	0.899	0.959
	I am absolutely delighted with using Facebook.	0.861	0.946
	Overall, I am satisfied with Facebook.	0.904	0.920
Resumption intention	I prefer using Facebook again.	0.869	0.951
	In the future, I intend to use Facebook again.	0.911	0.966
	Overall, I will not go back to using Facebook. (*reverse*)	0.868	0.945
Resumption behavior	I am using Facebook again.	Single item	
Dispositional resistance to change	I generally consider change to be a negative thing.	0.869	0.725
	I'll take a routine day over a day full of unexpected events anytime.	0.911	0.878
	I like to do the same old things rather than try new and different ones.	0.868	0.865
	I'd rather be bored than surprised.	n.a.	0.741
	If I were to be informed that there's going to be a significant change regarding the way things are done at work, I would probably feel stressed.	0.800	0.866
	When I am informed of a change of plans, I tense up a bit.	0.818	0.884
	When things don't go according to plans, it stresses me out.	0.790	0.851
	If my boss changed the criteria for evaluating employees, it would probably make me feel uncomfortable even if I thought I'd do just as well without having to do any extra work.	0.782	0.866
	Changing plans seems like a real hassle to me.	0.772	0.783
	I often feel a bit uncomfortable even about changes that may potentially improve my life.	0.825	0.868
	When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me.	0.762	0.849
	I sometimes find myself avoiding changes that I know will be good for me.	0.813	0.785
	I often change my mind.	n.a.	0.742
	Once I've come to a conclusion, I'm not likely to change my mind.	0.912	0.859
	I don't change my mind easily.	0.879	0.839
	My views are very consistent over time.	0.893	0.724
Habit (control variable in Sample 1)	*Please evaluate the following statement about using Facebook from your current perspective*		
	Using Facebook has become automatic to me.	0.870	
	Using Facebook is natural to me	0.893	
	When I want to interact with friends and relatives, using Facebook is an obvious choice for me.	0.821	
	When I want to inform my friends and relatives about news, using Facebook is an obvious choice for me.	0.901	

Measurement Model Validations

Tables B6 and B7 provide all necessary data to validate the measurement models of Sample 1 and Sample 2.

Table B6. Measurement Model Validation and Bivariate Correlation Coefficients (Sample 1)

#	Construct	Mean	Std	AVE	CR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	ComU	4.21	1.69	0.814	0.956	0.90																					
2	InfoU	4.48	1.57	0.787	0.957	0.51	0.89																				
3	SIsol	4.28	1.89	0.891	0.970	0.52	0.48	0.94																			
4	Bor	4.00	1.80	0.894	0.971	0.48	0.48	0.45	0.95																		
5	ReplO	3.79	1.54	0.817	0.947	0.41	0.47	0.36	0.39	0.90																	
6	DisSat	4.25	1.87	0.904	0.979	0.58	0.62	0.62	0.52	0.41	0.95																
7	PEnj	3.99	1.35	0.758	0.940	0.06	0.14	0.15	0.23	0.06	0.09	0.87															
8	PU	4.92	1.37	0.775	0.911	-0.03	0.12	0.01	0.04	-0.07	0.07	0.47	0.88														
9	Sat	4.1	1.71	0.731	0.931	0.40	0.39	0.43	0.41	0.31	0.35	0.31	0.29	0.86													
10	RS	5.01	1.59	0.780	0.914	-0.04	-0.09	-0.10	-0.18	-0.22	-0.08	-0.09	-0.08	0.00	0.88												
11	ER	4.16	1.55	0.636	0.875	-0.12	0.09	0.01	-0.06	-0.18	0.02	0.12	0.12	0.10	0.37	0.80											
12	STT	3.73	1.64	0.629	0.872	-0.15	-0.02	-0.13	-0.13	-0.24	-0.03	0.15	0.11	0.07	0.49	0.53	0.79										
13	CR	4.58	1.47	0.800	0.923	-0.05	0.04	-0.05	0.00	-0.03	-0.07	0.00	-0.01	-0.10	0.36	0.05	0.09	0.90									
14	ReInt	4.75	1.22	0.943	0.980	0.48	0.49	0.51	0.50	0.39	0.53	0.25	0.19	0.51	-0.07	0.17	-0.01	0.03	0.97								
15	ReBeh	1.34	0.48	1	1	0.45	0.44	0.43	0.42	0.42	0.47	0.20	0.19	0.49	-0.08	0.02	-0.03	-0.07	0.54	1.00							
16	Age	see demo-graphics		1	1	-0.19	-0.08	-0.18	-0.07	-0.03	-0.21	-0.12	0.07	-0.07	0.04	0.04	0.02	-0.05	-0.09	-0.16	1.00						
17	Gender			1	1	-0.02	-0.02	-0.10	-0.09	-0.04	-0.11	-0.17	-0.10	0.01	0.16	0.03	0.06	0.16	-0.13	0.00	0.05	1.00					
18	#friends			1	1	0.04	0.08	0.04	0.04	0.05	0.04	-0.01	0.26	0.16	0.12	0.14	0.07	0.04	0.11	0.11	0.11	-0.01	1.00				
19	Time			1	1	0.22	0.15	0.08	0.29	0.26	0.26	-0.13	0.05	0.21	0.20	0.05	0.17	-0.03	0.11	0.12	0.04	0.13	0.30	1.00			
20	D. motive	1.87	0.29	1	1	-0.02	-0.23	-0.13	-0.22	-0.18	-0.18	-0.07	-0.06	-0.21	-0.12	-0.13	-0.22	-0.08	-0.19	-0.19	-0.09	-0.14	0.07	-0.22	1.00		
21	SocEmbed	35.2	23.1	1	1	0.16	0.14	0.11	0.11	0.21	0.20	0.27	0.20	0.16	-0.08	-0.11	-0.01	-0.03	0.04	0.10	0.10	0.12	0.01	0.15	-0.16	1.00	
22	Habit	4.19	1.76	1	1	0.34	0.45	0.40	0.40	0.22	0.38	0.09	0.19	0.38	-0.17	0.10	-0.09	-0.05	0.43	0.48	-0.08	-0.02	0.22	0.14	-0.18	0.11	0.87

ComU = Communication underload; InfoU = Information underload; SIsol = Social isolation; Bor = Boredom; ReplO = Replacement overload; DisSat = Nonuse-related dissatisfaction; PEnj = Perceived enjoyment of prior SNS use; PU = Perceived usefulness of prior SNS use; Sat = Use-related satisfaction, RS = Routine seeking; ER = Emotional reaction; STT = Short-term thinking; CR = Cognitive rigidity; ReInt = Resumption intention; ReBeh = Resumption behavior; #friends = Number of friends; Time = Time spent on Facebook per day; D. motive = Discontinuance motive, SocEmbed = Social embededdness

Table B7. Measurement Model Validation and Bivariate Correlation Coefficients (Sample 2)

#	Construct	Mean	Std	AVE	CR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	ComU	3.40	1.72	0.755	0.939	0.87																					
2	InfoU	3.31	1.78	0.781	0.955	0.75	0.88																				
3	SIsol	3.30	1.73	0.802	0.942	0.74	0.68	0.90																			
4	Bor	2.77	1.52	0.845	0.956	0.60	0.55	0.74	0.92																		
5	ReplO	3.18	1.62	0.861	0.961	0.52	0.51	0.63	0.59	0.93																	
6	DisSat	2.48	1.58	0.845	0.965	0.69	0.67	0.70	0.59	0.52	0.92																
7	PEnj	3.73	1.42	0.813	0.956	0.37	0.49	0.37	0.39	0.34	0.34	0.90															
8	PU	4.51	1.50	0.908	0.967	0.34	0.42	0.30	0.33	0.30	0.28	0.61	0.95														
9	Sat	3.13	1.67	0.893	0.976	0.44	0.54	0.43	0.48	0.41	0.53	0.75	0.62	0.95													
10	RS	4.34	1.56	0.648	0.880	0.24	0.19	0.32	0.30	0.17	0.14	0.13	0.21	0.17	0.81												
11	ER	4.13	1.69	0.751	0.924	0.25	0.14	0.27	0.18	0.18	0.04	0.06	0.12	0.05	0.70	0.87											
12	STT	3.87	1.58	0.676	0.893	0.21	0.17	0.33	0.26	0.26	0.12	0.04	0.08	0.04	0.70	0.81	0.82										
13	CR	4.43	1.63	0.629	0.871	0.10	0.10	0.14	0.12	0.09	-0.04	0.09	0.17	0.02	0.55	0.55	0.58	0.79									
14	ReInt	3.09	1.62	0.911	0.968	0.50	0.51	0.50	0.57	0.47	0.62	0.54	0.54	0.76	0.14	0.01	0.03	0.00	0.95								
15	ReBeh	1.21	0.41	1	1	0.27	0.21	0.32	0.35	0.34	0.36	0.44	0.49	0.47	0.07	0.02	0.01	0.01	0.62	1.00							
16	Age	See demo-graphics		1	1	-0.11	-0.10	-0.16	-0.15	0.01	-0.13	0.05	-0.08	-0.10	-0.18	-0.17	-0.09	-0.14	-0.07	-0.06	1.00						
17	Gender			1	1	0.03	0.07	0.05	0.03	0.09	-0.06	0.04	-0.06	-0.13	-0.07	-0.01	-0.03	-0.04	-0.06	0.01	-0.03	1.00					
18	#friends			1	1	0.14	0.16	0.12	0.21	0.15	0.11	0.20	0.18	0.21	-0.04	-0.09	-0.02	0.01	0.21	0.22	-0.04	0.08	1.00				
19	Time			1	1	0.30	0.27	0.30	0.31	0.24	0.39	0.16	0.11	0.22	0.03	0.03	0.05	0.01	0.24	0.15	-0.03	0.13	0.25	1.00			
20	D. motive	2.03	1.48	1	1	0.05	0.04	0.03	0.02	-0.01	0.10	0.21	0.05	0.10	0.11	0.09	0.08	0.05	0.08	0.13	0.16	0.00	-0.02	0.02	1.00		
21	SocEmbed	39.28	32.1	1	1	0.01	-0.05	0.04	0.01	0.13	-0.08	0.00	0.14	0.01	0.12	0.10	0.07	0.11	0.06	0.12	-0.12	0.06	0.06	-0.17	-0.09	1.00	
22	DoA	2.03	1.48	1	1	-0.12	-0.12	-0.07	-0.10	-0.02	-0.26	-0.12	-0.13	-0.22	0.06	0.17	0.12	0.04	-0.30	-0.25	0.04	-0.06	-0.34	-0.19	0.07	-0.04	1.00

ComU = Communication underload; InfoU = Information underload; SIsol = Social isolation; Bor = Boredom; ReplO = Replacement overload; DisSat = Nonuse-related dissatisfaction; PEnj = Perceived enjoyment of prior SNS use; PU = Perceived usefulness of prior SNS use; Sat = Use-related satisfaction, RS = Routine seeking; ER = Emotional reaction; STT = Short-term thinking; CR = cognitive rigidity; ReInt = Resumption intention; ReBeh = Resumption behavior; #friends = number of friends; Time = Time spent on Facebook per day; D. motive = Discontinuance motive, SocEmbed = Social embededdness; DoA = Duration of absence

Common Method Bias and Sampling Bias Issues

Empirical research must consider common method bias (CMB) in self-reported data (Chin et al., 2012; Podsakoff et al., 2003). To determine the extent of CMB, we ran four different tests. The results of the first test, Harman's single factor test, which indicates whether or not the majority of the variance can be explained by one single factor, show that only 22.1%/21.6% of the variance of the data is explained by one factor. Second, we included a marker variable ("Coffee is important in my life") in our research model. We expected this variable to not be highly correlated with other constructs considered in our study. Following the technique suggested by Lindell and Whitney (2001), and the recommendation of Chin et al. (2012) to a priori choose a theoretically unrelated marker variable, we used the second-smallest positive correlation among the constructs measured in one period and the marker variable (0.02 for both studies). We then developed a CMB-adjusted correlation matrix to examine the structural relationships in the research model (Malhotra et al., 2006). Results indicate that the directions and significance levels of the paths remained unchanged. Moreover, our results indicate that adding the marker variable does not include an R^2 value of more than 1% in either study. Third, we used the procedure of examining the correlation matrix as specified by Pavlou et al. (2003). Extremely high correlations ($r > 0.90$) are an indicator of CMB but our correlation matrix did not indicate such high correlations.

The fourth test was proposed by Williams et al. (2003), who suggest determining the extent of CMB with the help of PLS by including a CMB factor into the model. All remaining factors were transformed into several single-item constructs and the ratio of R^2 with a CMB factor is compared to R^2 without a CMB factor. Comparing the average R^2 without a CMB factor and the delta R^2 that could be explained with the CMB factor, this results in a ratio of 1:199.75 / 1:245, i.e., no observable signs of CMB influence (Liang et al., 2007). In addition, the path coefficients from the CMB factor and the original constructs and had a ratio of 1:299.5 / 1:394. Finally, our results reveal that only three two-path coefficients from the CMB factor to the single-item constructs are significant. Comparing this with prior results indicate that CMB might not distort the results.

Based on the longitudinal research setting and the results of the different CMB tests, CMB is unlikely to be an issue for the results. In addition, and to address sampling bias issues, we compared early and late respondents (in both samples) in terms of their demographic information. Findings indicate that there are no significant differences, meaning that our sample was likely unbiased.

Controls

Table B8 reveals that the controls have no impact in this study in both samples.

Table B8. Controls

Dependent variable: Resumption behavior	**Sample 1**		**Sample 2**	
Independent variable	β-value	p	β-value	p
Age	-0.074NS	>0.05	-0.010 NS	>0.05
Gender	0.061 NS	>0.05	0.057 NS	>0.05
Number of friends	0.022 NS	>0.05	0.049 NS	>0.05
Extent of use (time)	0.020 NS	>0.05	-0.053 NS	>0.05
Discontinuance motive	-0.050 NS	>0.05	0.078 NS	>0.05
Social embeddedness	0.005 NS	>0.05	0.064 NS	>0.05
Duration of absence			-0.003 NS	>0.05
Habit	0.200**	<0.01		
Note: NS: $p > 0.05$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.005$				

Measurement Invariance

In order to analyze measurement invariance, we followed the steps suggested by Henseler et al. (2016). To perform the analysis used in our manuscript, we had to establish configurational invariance and compositional invariance. For configurational invariance, we ensured that the following aspects were identical for the two groups of recent and long-standing ex-users: the setup of the measurement and structural model, data treatment, and algorithm settings to estimate both models. The only difference in the two studies was that each study had one specific control variable for resumption behavior and that the time between the surveys varied. Thus, we can conclude that configurational invariance was established. For compositional invariance, we made use of the fact that the MICOM procedure is implemented in SmartPLS 3. We found the value of 0.940, which is close to 1, to be the lowest *c* value. The permutation test thus substantiates the establishment of compositional invariance because the *c* values are significantly different from 1. Since data from Studies 1 and 2 are not pooled, there is no need to assess composites' equality of mean values and variances across both studies (Henseler et al., 2016). In line with Henseler et al. (2016), this allowed us to compare the path coefficients of both studies.

About the Authors

Christian Maier is an assistant professor at the University of Bamberg, Germany. Dr. Maier's research interests include the IS use lifecycle, especially the adoption, usage, and discontinuous usage of digital technologies in the private (e.g., bitcoin, social networking sites) and organizational (e.g., enterprise content management, human resources technologies) use contexts, viewed through various theoretical lenses, such as IS use stress, coping, and resistance. His research has been published in *MIS Quarterly*, *Journal of the Association for Information Systems*, *European Journal of Information Systems*, *Information Systems Journal*, *Journal of Strategic Information Systems*, and *Journal of Information Technology*, among other outlets. He is a senior editor at *Internet Research* and was awarded the Schmalenbach Prize for young researchers in 2015, the prestigious Early Career Award by AIS in 2019, and ACM SIGMIS in 2020. In his free time, Dr. Maier enjoys cycling and eating out with family and friends.

Sven Laumer is the Schöller Endowed Professor and chair of information systems in the School of Business, Economics and Society at Friedrich-Alexander-Universität Erlangen-Nürnberg and deputy director of the Dr. Theo und Friedl Schöller Research Center. His research focuses on digital work and life. His research has been published or will appear in *MIS Quarterly*, *Journal of the Association for Information Systems*, *Information Systems Journal*, *European Journal of Information Systems*, *Journal of Strategic Information Systems*, *Journal of Information Technology*, and *MIS Quarterly Executive*, among other journals. He serves on the editorial boards of *Information Systems Journal* and *The Data Base for Advances in Information Systems*. He was awarded the Young Talent Award in 2018 by the German Academic Association of Business Research (VHB). When he is not working, he enjoys being a soccer referee, hiking in the Alps, and spending time with friends and family.

Jason Thatcher holds the Milton F. Stauffer Professorship in the Department of Management Information Systems at Temple University's Fox School of Business and Management. Dr. Thatcher studies strategic, human resources, and cybersecurity issues related to the effective application of information technologies in organizations. His work appears in *MIS Quarterly*, *Journal of the Association for Information Systems*, *Information Systems Research*, *Journal of Applied Psychology*, and other refereed outlets. He has served as the president of the Association for Information Systems and senior editor at *MIS Quarterly*. He is presently a senior editor at the *Journal of the Association for Information Systems* and *Information Systems Research*. In his free time, Dr. Thatcher walks his malty-poo, eats dim sum, and watches anime with his daughter.

Dr. Heshan Sun is a professor in the Management Information Systems Division of the Price College of Business, University of Oklahoma. His research interests include human-computer interactions, postadoptive system use, trust and e-commerce, and business analytics. His research has been published (or will appear) in journals such as *MIS Quarterly*, *Information Systems Research*, *Journal of the Association for Information Systems*, *Decision Support Systems*, *International Journal of Human-Computer Studies*, and *Journal of the American Society for Information Science and Technology*, among others. He served as an associate editor of *MIS Quarterly* (2014-2017). He is presently a senior editor at *AIS Transactions on Human-Computer Interaction.* He won the prestigious Reviewer of the Year (2011) award from *MIS Quarterly*. His research has been supported by various grant agencies (e.g., NSF).

Christoph Weinert is an assistant professor at the University of Bamberg. His research results about IT adoption and usage, technostress and coping, teleworking, and enterprise content management have been published in *Information Systems Journal*, *SIGMIS Database*, *Journal of Business Economics* , *Business & Information Systems Engineering*, and in the proceedings of various conferences including ICIS, ECIS, HICSS, AMCIS, International Conference on Wirtschaftsinformatik, ACM SIGMIS, and Gmunden Retreat on NeuroIS.

Dr. Tim Weitzel is a full professor and chair of Information Systems and Services at the University of Bamberg in Germany and director of the Centre of Human Resource Information Systems (CHRIS). His current interests are in IT management, technostress, AI in HR and healthcare, and the future of work. Tim's research has been published in journals including *MIS Quarterly*, *Journal of the Association for Information Systems*, *Journal of Management Information Systems*, and *GQ*, and has been cited over 7,000 times.