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Understanding Work-Related Social Media Use: An Extension of Theory of Planned Behavior

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This study examines the motives of employees to engage in work related social media use – i.e. the use of personal social media accounts to communicate about work-related issues. The theory of planned behavior (TPB) was used to explain this behavior. Because social media can enable users to express their identities, social identity expressiveness and self-identity expressiveness were added to the TPB model. Through an online questionnaire, using purposive sampling technique, 514 Dutch employees were asked about their social media use and motivation to do so. We used structural equation modelling (SEM) to test our hypotheses. Results indicate that these identity constructs enhance the predictive ability of the TPB. As such, work-related social media use is likely to take place spontaneously rather than deliberately and consciously planned.

Keywords: Identity expression, Social media, Employees, Extended theory of planned behavior, SEM

JEL: D83, D85, L14

On social media we can read about the experiences people had with the services and products of organizations, as well as the experiences of employees from these organizations. The advent of social media has empowered employees with a large share of voice and the ability to influence perceptions (Kietzmann, et al., 2011) as they engage in what Castells (2007) labeled mass self-communication. Meanwhile, organizations are struggling to understand the role of social media in the organization (Macnamara and Zerfass, 2012). Employees may use social media to show others the work and organization that they take pride in, while at the same time anecdotal evidence provides numerous examples of unwarranted or misguided social-media utterances of employees, resulting in diminishing career prospects or even job loss (see Fournier and Avery, 2011). In addition, the large number of work-based friendships and because work is a pivotal life domain, social media are rapidly included in the workplace (Treem and Leonardi, 2012). Yet, research on social media use predominantly focused on individuals’ motivations for using social media (e.g., Cheung, Chiu and Lee, 2011; Hollenbeck and Kaikati, 2012; Shao, 2009) and organizations’ use of social media (e.g., Fournier and Avery, 2011; Lovejoy, Waters and Saxton, 2012), ignoring the role of employees and work-related social media use. As such, we contribute to the literature by advancing our understanding of why employees communicate about work on personal social media. We look at the use of personal social media for work purposes for several reasons.
First, the rapid growth of social media has made them all but omnipresent in organizations. Second, unlike their intraorganizational counterparts—i.e., enterprise social media, their use in organizations is seen as controversial. Third, despite their presence in organizations virtually nothing is known about the antecedents driving the use of these media. This study aims filling a void in current literature by exploring employees’ motives to use personal social media accounts for work-related purposes.

Although a formal definition is lacking, “social media” can be generally understood as Internet-based applications that carry user-generated content which encompasses “impressions created by users, typically informed by relevant experience, and archived or shared online for easy access by others” (cf. Xiang and Gretzel, 2010: 180). We use the term social media to refer to public channels such as Facebook, Twitter and LinkedIn. As such, we exclude enterprise social media such as Yammer and Communicator whose content is not usually of a public nature (Treem and Leonardi, 2012).

The cacophony of social-media utterances has made it much harder for organizations to control online communication (Fournier and Avery, 2011). All employees can share work-related experiences on social media and, as such, represent the organization (Macnamara, 2010). Work-related social media use is defined as participating in online discussions about work or posting, tweeting, and/or otherwise producing work-related messages using personal social media platforms such as Twitter, Facebook or LinkedIn. Since these behaviors have a profound impact on organization-public communication as well as workplace communication, there is an urgent need to understand the motives driving employees’ social media behavior.

**LITERATURE REVIEW**

Social media have changed the ways in which organizations and publics relate to one another (Lovejoy et al., 2012). Social media content is not centrally controlled; rather it arises unpredictable, triggered by self-organizing characteristics of communities (Macnamara, 2010). This notion radically changes the way in which communication should be conceptualized, as it levels the playing field for organizations and publics (Castells, 2007). To date, social media have been predominantly treated as a manageable communication channel (Fournier and Avery, 2011). However, this approach overlooks the fact that on social media, by definition, users rather than organizations are in charge of the media content (Fournier and Avery, 2011; Kaplan and Haenlein, 2010).

In addition to publishing social media content themselves, organizations increasingly implement social-media policies that provide guidelines for employees (a) access to social media platforms, (b) information dissemination on social media, and (c) preferred tone of voice (Jaeger, Bertot and Shilton, 2012; Macnamara and Zerfass, 2012). Organizations increased attention for employees’ online behaviors and the potential consequences of such behavior warrant substantial elaboration of employees before engaging in work-related social-media use. Therefore, employees’ work-related social-
media use is considered intentional and subject to considerable elaboration. Hence, the theory of planned behavior (TPB) (Ajzen, 1991) is an appropriate model in explaining work–related social media use as the model assumes behavior is planned and preceded by intentions. Social media are a means by which individuals can construct, convey and discuss personal identities through expression and dialogue (Kaplan and Haenlein, 2010). Moreover, social media are built around identities, as users are required to generate profiles that at least partially reflect their identity (Kietzmann, et al., 2011; Kietzmann, et al., 2012). Hence, the TPB will be used as the theoretical framework and is extended with self–identity expressiveness and social identity expressiveness.

THEORETICAL FRAMEWORK

Theory of Planned Behavior

Although current technology enables employees to actively participate in the communication process, we lack understanding of the antecedents of this behavior. We will fill this void by examining work–related social–media use with an extended version of the TPB. The TPB, a well–validated model to explain behavioral performance, has been applied in a variety of contexts, such as health, consumerism, and entrepreneurship (Armitage and Conner, 2001; Conner and Armitage, 1998). Moreover, the TPB has been applied to the adoption of communication technologies such as smart phone use, online communication and mobile services (Cho and Hung, 2011) and specifically to technology use in a work related context (Baker, Al–Gahtani, and Hubona, 2007). Although social media use is usually treated as intentional behavior (Cheung, et al., 2011), the TPB has not been used to explain employees’ use of personal social media for work–related purposes.

Belief Structures

According to the theory of planned behavior, human behavior is guided by three kinds of beliefs: behavioral (attitudes), Normative (subjective norm) and subjective (perceived behavioral control). The TPB posits that intentions are influenced by ones attitude towards the behavior, subjective norm, and perceived behavioral control (Ajzen, 1991). In short, attitude refers to the degree to which a person has a favorable evaluation or appraisal of the target behavior; the subjective norm refers to the perceived social pressure to either perform or not to perform certain behavior (Rise, et al., 2010). Behavioral control reflects the perceived ease to perform certain behavior, thereby influencing intentions to perform behavior. Ultimately, intentions to perform behavior predict behavior performance. The TPB has been applied extensively to predict a variety of behaviors in a range of populations. A study by Pelling and White (2009) applied the TPB to explain the use of social network sites (SNS) among young adults. Traditional TPB variables such as attitude and subjective norm significantly predicted intentions to use SNS. In turn, intention was found to predict people’s behavior on SNS. Moreover, the TPB has been successfully applied to explain new technology use and information sharing among knowledge workers (Al–Gahtani,
Hubona, and Wang, 2007; Lewis, Agarwal and Sambamurthy, 2003; Tohidinia and Mosakhani, 2010). Attitude, subjective norm and perceived behavioral control were all found to be significant, positive determinants of intentions to use technology in a work-related context (Baker et al., 2007). This confirms the suitability of the TPB for technology-related behaviors in a work-related context. In addition, Bock, et al., (2005) confirmed that the subjective norm and the attitude towards knowledge sharing affected the intention to share knowledge in an organization. The TPB is well validated across different settings, both social and work related, and to a variety of communicative behaviors such as e-mail use, new technology, knowledge sharing and mobile phone use. By the same token we expect the TPB to apply to work-related social media use as well. Hence, we hypothesize that:

H1: Attitude (a), subjective norm (b) and perceived behavioral control (c) will positively influence the intention to engage in work-related social media use.

Intention and Behavioral Performance

The TPB (Ajzen, 1991) suggests that behavior is determined by intentions to perform that behavior. Time and research has shown that behavioral intentions precede the performance of actual behavior (For an overview see Armitage and Conner, 2001; Conner and Armitage, 1998; Rise, et al., 2010). Several meta-analyses on the theory of planned behavior showed that across a variety of contexts, behavioral intentions predict the performance of behaviors (e.g., Armitage and Conner, 2001; Conner and Armitage, 1998; Rise et al., 2010). Since the personal use of social media for work, is like most behaviors, under volitional control, behavioral intention is one of the best predictors for behavioral performance (e.g., Armitage and Conner, 2001; Rise, et al., 2010). These findings extrapolate to the context of social media, as Pelling and White (2009) found that intentions to use social networking sites predicted actual use. Therefore, we hypothesize that:

H2: Intentions to engage in work-related social media use positively influence work-related social media use.

Extending the TPB: Identity Expressiveness

Overall, the predictive validity of the TPB in explaining the variance in intention and behavior could be improved (Armitage and Conner, 2001; Conner and Armitage, 1998; Rise, et al., 2010). This gives rise to question the assumption that the TPB adequately captures all determinants of intentions and behavior – i.e., the sufficiency assumption. Ajzen (1991) noted that the TPB is open to inclusion of additional antecedents, as long as it improves the predictive power of the TPB. Several researchers included additional predictors in an attempt to explain various behaviors (e.g., Heath and Gifford, 2002). This study aims to explain work-related social media use with the TPB and additional predictors, derived from the social identity theory.

Social media enable social interaction (Kaplan and Haenlein, 2010) and are particularly suitable to convey a desired presentation of the self (Pelling and White, 2009). The appeal of social media lies in the opportunity to produce content that enables self-expression and self-actualization (Hogan, 2010; Shao, 2009). The
ability to express is an intrinsic motivation for social media use (Pagani, Hofacker and Goldsmith, 2011; Shao, 2009). Hence, this study will extend the TPB with identity expressiveness constructs.

Social media enable individuals to construct an online representation of the self (Hollenbeck and Kaikati, 2012). A variety of concepts refer to this notion. Impression management and self-presentation are often linked to social media use (Boyd and Ellison, 2008; Hogan, 2010; Kaplan and Haenlein, 2010; Shao, 2009), where others refer to personal branding (Dutta, 2010; Labrecque, Markos and Milne, 2011) or self-expression (Shao, 2009; Pelling and White, 2009) to describe the tendency of individuals to influence and control impressions others form about them. Social media enable individuals to create an online identity and convey a favorable image of the self. As in any type of social interaction, social media users have a desire to control impressions other people form about them (Kaplan and Haenlein, 2010). Self-expression can be explicit in terms of direct self-disclosure or implicit through instinctive choices of topics, words and style (Shao, 2009). Moreover, impression management is commonplace in organizations, as employees do so to impress colleagues and communicate desirable and beneficial images to appear more competent (Yun, Takeuchi and Liu, 2007). The central tenets underlying these conceptualizations are that individuals a) prefer to be associated with personality traits congruent with their own or desired traits, and b) use implicit and explicit cues to express their identity and values. The latter is of particular interest: as such forms of identity expressiveness may motivate employees to engage in work-related social media use.

Expressiveness refers to perceptions of a product’s or service’s ability to express social or personal identities (e.g., Pagani et al., 2011). Identity expressiveness is believed to be a strong determinant of intention and behavior with respect to products and services with symbolic value (Pagani, et al., 2011) such as social media. Social media are primarily communication services and are created as platforms to facilitate information exchange between users (Kaplan and Haenlein, 2010), thus a motivation for users to engage in these media is the ability to express and communicate (Pagani, et al., 2011).

Identity Expressiveness and Self-Identity Expressiveness

Identity expressiveness comes in two forms (Pagani et al., 2011; Thorbjornsen, et al., 2007); first, individual behavior can be interpreted by others in the social construction of identity (i.e. social identity expressiveness). For example, by publishing messages about professional accomplishments employees could convey a favorable image to coworkers and other audience members. Secondly, individual behavior can be interpreted by oneself in the self-construction of identity (i.e. self-identity expressiveness). An employee may express his or her membership to a prestigious organization to boost self-esteem. Thus the two underlying constructs of identity expressiveness as defined as follows. Self-identity expressiveness, in the context of this study, denotes how and to what extent employees use their personal social media
accounts to display their own identities. In turn, social identity expressiveness denotes the extent to which employees communicate their group affiliations verbally and skillfully in social interaction on social media (Thorbjornsen et al., 2007; Pagani et al., 2011).

Identity expressiveness is applied to the use of technology, products, and services that are important to social identity and role-oriented self-identity (Thorbjornsen et al., 2007). Expression of identity is common on social media, as it requires users to construct a profile, which is at least a partial reflection of their identity. Work is a pervasive life domain and salient source of meaning and self-definition (Carlsen, 2008) as most people spend large portions of their adult lives at work (Dutton, Roberts, and Bednar, 2010). The large number of work-based friendships (Berman, West, and Rihet, 2002) and daily interactions at work (Dutton and Ragins, 2007) make work a pivotal domain for the construction of the self. Employees form, transform, and modify how they define themselves in the context of work-based situations and activities (Dutton et al., 2010). Social identity expressiveness and self-identity expressiveness straddles the disciplines of social psychology, sociology, and communication (e.g., Stets and Burke, 2000; Thorbjornsen et al., 2007). Social identity is rooted in social psychology and is used to explain group processes and intergroup relations (Thorbjornsen et al., 2007). Hence, social-identity expressiveness relates to group processes and focuses on identity components that emanate from group membership (Stets and Burke, 2000), such as organizational membership. Through work-related social media use, employees can emphasize their role as organization member or their role as a member of the profession. In turn, self-identity expressiveness aims at explaining individuals’ role-related behaviors assuming people have distinct components of self – i.e., role identities – for each role they occupy (Dutton et al., 2010). Engaging in work-related social media use enables employees to convey a certain image from which they derive status. For example, chefs may describe their roles with rhetorical narratives that boost their self-identity such as artist or professional. By the same token, Wrzesniewski, Dutton, and Debebe (2003) illustrated hospital cleaners choose from interactions with hospital staff and patients to...
construct self-definitions that foster a sense of value and meaning in their work.

Social Identity Expressiveness

Social identity expressiveness relates to group processes and focuses on identity components that emanate from group membership (e.g., Ellemers, Spears and Doosje, 2002; Thorbjørnsen, et al., 2007). Moreover, social identity expressiveness emphasizes group membership by forming intergroup boundaries, often emphasizing favorable in-group characteristics (Doosje and Haslam, 2005). Employees can emphasize their organizational membership or department membership within these organizations, and focus on other in-group members (i.e. colleagues) in their communication, thereby shaping group boundaries. When individuals express themselves in terms of self-inclusive social categories (e.g., the team or the organization) two processes are particularly important: categorization and self-enhancement (Thorbjørnsen et al., 2007). Categorization refers to the basic cognitive process through which group boundaries are shaped and implies that individuals and symbols are assigned to relevant categories. In turn, self-enhancement refers to the tendency to behaviorally and perceptually favor the in-group over the out-group, because self-concepts are defined in terms of group membership (Doosje and Haslam, 2005).

Moreover, social identity expressiveness relates to the way in which individuals conceive themselves (Crane and Ruebuttom, 2011; Westjohn, et al., 2009) and influence other’s cognitions and behavior (Balmer, 2008). Employees can emphasize their membership to an organization, which may affect their expectations of information encountered on social media or the way in which they enact with the medium (e.g., encountering professional information and engaging in formal use). In contrast, the same individual could have a different set of expectations and behaviors when acting as a family member in a private setting (e.g., encountering information about family and private life and engaging in informal use). This is supported by findings of Verhoeven (2012) who found discrepancies between motivations for general (private) social media use and professional use. In a related context Thorbjørnsen et al., (2007) found that social identity expressiveness positively influenced intentions to use multimedia messaging services. We expect that social identity expressiveness will influence conceptions of the self and intentions to engage in work-related social media use.

H3: Social identity expressiveness will have a positive effect on both (a) intentions to engage in work-related social media use, and (b) self-identity expressiveness.

Self-Identity Expressiveness

Self-identity refers to salient and enduring aspects of individual’s self-concept (Conner and Armitage, 1998; Rise, et al., 2010). More specifically self-identity maintains that individuals have specific components of the self, i.e. role identities, for each role they occupy in society e.g., employee (Terry, et al., 1999). Thus, self-identity expressiveness refers to the way in which employees’ work-related social media use reconfirms their self-concept. In the adoption of
communication services in general (Thorbjørnsen, et al., 2007) and social media in particular (Shoa, 2009), self-identity expressiveness is believed to be an important determinant of intentions to use such services. In relation to consumers’ representation as health conscious, self-identity expressiveness has a significant positive effect on intentions independent of other variables in the TPB-model (Sparks and Guthrie, 1998). Self-identity expressiveness denotes how and to what extent employees convey their own identity and values through their use of work-related social media messages. By the same token, impression management is often used to refer to individuals’ tendencies to convey a favorable image of the self in a professional setting (Boyd and Ellison, 2008; Hogan, 2010).

Dutta (2010) argues that social media are especially suitable to communicate who you are both within and outside your company. Social media enable employees to engage rapidly and simultaneously with peers, colleagues, customers, and the general public. Thereby offering possibilities to convey a favorable image of the self (Dutta, 2010).

In addition, Labrecque et al., (2011) found that although people often engage in communicating a favorable self-image, these efforts are often misdirected and insufficient, especially when managing multiple audiences. Work-related social media use can help convey a favorable image, attribute status, and impress others through self-expression (Dutta, 2010; Labrecque et al., 2011). Hence, self-identity expressiveness is believed to be an important antecedent for intentions to engage in work-related social media use (Thorbjørnsen, et al., 2007). Leading to hypothesis 4:

**H4:** Self-identity expressiveness will have a positive effect on intentions to engage in work-related social media use.

**METHODOLOGY**

**Sample and Procedure**

To test the hypotheses, an online questionnaire was developed. The data were acquired through a purposive sampling strategy aiming to include those employees who used social media. Almost one in every three employees engaged in work-related social media use, this distribution increases for younger employees (Verhoeven, 2012). Hence, we did not aim at drawing a representative sample of the Dutch workforce, but rather targeted younger employees with the highest probability of performing the target behavior. Furthermore, employees were only included when they worked at least part-time and possessed a personal social media account on Facebook, Twitter or LinkedIn. Respondents that worked less than 8 hours or were not employed at all were excluded from participation. Respondents received an e-mail inviting them to partake in this study. We assured anonymity, confidentiality and the use of aggregate statistics only. No incentives were offered in exchange for participating.

The online questionnaire was administered in Dutch and completed by 514 respondents. Among respondents, Facebook was most popular (94.7%), respectively 42.6 percent and 27.8 percent of the respondents also used LinkedIn and Twitter. Respondents often used.
these media channels, 60.9 percent indicated using these media several times a day and an additional 23.2 percent indicated daily use of these social media. Respondents often indicated their organization was active on social media (76.3%). While 39.9 percent of respondents indicated their organization did not have guidelines for social media use another 39.1 percent was unaware of such guidelines in their organization. The majority of respondents held a Master’s or Bachelor’s degree (61%) and the mean age was 25.17 years old (S.D = 7.33). Respondents were mostly engaged in part-time employment, 44.6 percent indicated they worked between 15 and 24 hours per week another 27.6 percent worked 33 hours or more per week. Other respondents worked 8 to 14 hours a week. They did so in many different branches such as services (15.2%), retail (10.1%), information and communication (6.2%), tourism and hospitality (10.3%), and semi-governmental institutions (22%). In 27 percent of the cases respondents were engaged in work relationships in addition to their educational obligations. In sum, a total of 514 employees from a variety of sectors participated in this study. Through the completion of an online questionnaire, we assessed their motivations for work-related social media use and tapped in to actual behaviors through self-report measures.

Measures

In this paragraph the operationalization of variables is discussed. Work-related social media use is defined as, posting, tweeting or otherwise publishing or responding to work-related messages using social media platforms. We focused on Facebook, Twitter and LinkedIn, as these three platforms are most widely used and relevant to the purpose of this study. Twitter is the most likely platform to publish work-related social-media messages (Verhoeven, 2012), Facebook is the most widely adopted social media channel and LinkedIn was included for its specific focus on professional networking. Work-related messages are messages about work or professional roles related or referring to the organisation or brand. Throughout the questionnaire we used 7-point answer categories. The measurement instrument was based on earlier research by Ajzen and Fishbein (1980) and Thorbjornsen, et al. (2007).

Social media use for work. The target behavior was operationalized as a behavioral frequency measure using two items: “How often do you post messages about your organisation on your social media account?” and “How often do you post messages about your daily work on your social media account?” . Responses were anchored on a 7-point scale ‘never’ to ‘multiple times a day’. The items formed a reliable scale (α .80).

Behavioral intention. Respondents were asked to indicate their intention to perform the target behavior using four semantic differentials: “I use personal social media to communicate about work-related topics”. The bipolar adjectives were adopted from Ajzen and Fishbein (1980) and include adjectives such as “probably not/probably” and “absolutely not/absolutely” . The four differentials formed a reliable scale (α .97).
Attitude. Attitude toward the target behavior was measured using four semantic differentials (Ajzen and Fishbein 1980). After specifying the target behavior participants were asked to evaluate work–related social–media use: using four bipolar adjectives such as, unpleasant/pleasant and harmful/beneficial commonly used in attitude measures. These adjectives formed a reliable scale (α .90).

Subjective norm. Subjective norm was measured based on items from Ajzen and Fishbein (1980), for example, “it is expected that people like me are using social media to publish work–related messages via social media”. And “Most of my colleagues use social media to publish work–related messages”. Response options were anchored: strongly agree/ strongly disagree, the scale was reliable (α .72). Perceived behavioral control is used to capture the likelihood that someone is able to perform certain behavior and the perceived difficulty of performing that behavior. Items include: “if I wanted to publish work–related messages in the forthcoming week I could” and “I feel uninhibited to publish work–related messages on social media”. The items formed a reliable scale (α .70).

Identity expressiveness. Measures for social–identity expressiveness were adopted from Thorbjornsen et al. (2007). Items intended to measure social identity expressiveness include “I often show work–related messages to colleagues” and “I often talk to others about work–related social media use” these items were measured on a 7–point scale (totally disagree – totally agree), and formed a reliable scale (α .80). Self–identity expressiveness refers to the expression of a particular self–concept, such as considering oneself a marketer, or loyal employee. The extents to which individuals identify with the organisation and express personal values are typically measured as self–identity expressiveness dimensions. Items include “I use work–related messages on social media to express personal values” and “the work–related messages I post reflect my personality” anchored totally disagree – totally agree, scale reliability (α ) was .79. Descriptive statistics are reported in Table 2, factor loadings and Cronbach’s alphas are depicted in Table 3.

Data Analysis
A fully latent structural model was estimated using the statistical program EQS (Bentler, 1993). Structural equation modelling (SEM) is a confirmatory approach to data analysis (Kline, 2011). Since the TPB has been widely applied and validated, and there is strong theoretical support for the models specified, this method of analysis is highly appropriate. In order to evaluate model fit we relied on, the chi–square (χ^2) statistic, the root mean square error of approximation (RSMEA) and comparative fit index (CFI) to evaluate model fit. Notably, the distribution of the data suggests multivariate kurtosis. The multivariate non–normality could increase the value of chi–square (χ^2) so that model fit appears worse than it really is. Therefore, the balanced chi–square (Santorra–Bentler statistic) is reported as this parameter controls for multivariate non–normality. Moreover, standard errors were estimated using robust estimation. The data were analyzed using a two–step approach first the confirmatory factor
analysis was conducted to determine whether the measured variables reliably reflect the hypothesized latent variables. In the second step, the structural model was estimated. Estimating structural models is an iterative process driven by the conjunction of theory and statistical evidence. 

EQS provides modification indexes – i.e. Lagrange multiplier and Wald test – that indicate which paths could be added or dropped to improve model fit. Model improvement was assessed using chi-square ($\chi^2$) difference test, deletion or addition of paths is done one at a time, when theoretically defensible and when it contributes to model fit (Kline, 2011).

RESULTS

Measurement Model

The extended TPB was tested by employing a fully latent structural regression model. First, the measurement model is presented; subsequently the structural model is discussed. An inspection of univariate distribution statistics, skewness and kurtosis, suggests distribution problems. Examination of multivariate kurtosis using Mardia’s test indicates the data is non-normally distributed. A test on multivariate normality suggests problems as the normalized estimate for multivariate kurtosis exceeds the threshold (34.28). The absolute values of kurtosis provided by Mardia’s test, as assessed here, should be below $K_I > 20.0$ (Kline, 2011: 63). However, these problems were overcome by estimating the model using a robust estimation technique. The advantage of this method is that it can handle models with a large number of badly distributed variables (Bentler, 1993; Kline, 2011). Multivariate assumptions were assessed. First curve estimations for all relationships in the model determined that the relationships were sufficiently linear to be tested using covariance based algorithms. Second, the high correlations between several constructs may indicate multicollinearity. As such collinearity statistics – i.e. variance inflation factors (VIF) – were assessed for all independent variables indicating the absence of multicollinearity.

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2_{\text{scaled}}$</th>
<th>$df$</th>
<th>$\chi^2_{p}$</th>
<th>$\chi^2_{\text{diff}}$</th>
<th>RMSEA (90% CI)</th>
<th>CFI</th>
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<tbody>
<tr>
<td><strong>Measurement models</strong></td>
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<tr>
<td>Baseline model</td>
<td>148.05</td>
<td>114</td>
<td>.02</td>
<td>.02 (.01; .03)</td>
<td>.99</td>
<td></td>
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<tr>
<td>Final model</td>
<td>137.70</td>
<td>113</td>
<td>.06</td>
<td>10.35***</td>
<td>.02 (.00; .03)</td>
<td>.99</td>
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<tr>
<td><strong>Structural models</strong></td>
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<td>Initial model</td>
<td>176.78</td>
<td>121</td>
<td>.00</td>
<td>.03 (.02; .04)</td>
<td>.99</td>
<td></td>
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<td>SR Model 2</td>
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<td>.03</td>
<td>26.09***</td>
<td>.02 (.01; .03)</td>
<td>.99</td>
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<tr>
<td>Final Model</td>
<td>140.94</td>
<td>119</td>
<td>.08</td>
<td>6.24**</td>
<td>.02 (.00; .03)</td>
<td>.99</td>
</tr>
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Note: Satorra-Bentler statistic is reported

As can be seen in Table 1, all fit indices of the measurement model convincingly advocate a good model fit: Satorra-Bentler statistic, $\chi^2$ that controls for non-normality suggests good model fit ($\chi^2 = 137.70$, $df=113$, $p = .06$). As does the comparative fit index (CFI) = .99, and the root square error of approximation (RMSEA) = .02 (CI: .00; .03). The measurement model was further examined by assessing discriminant and
convergent validity. Results indicate sufficient discriminant validity, as the highest factor correlation is .78, between intention and target behavior, which is not surprising. Other between construct correlations ranged from .27 to .77, below the threshold of .80 – i.e. no multicollinearity (Gujarati, 2004). Notably, correlations between independent variables are high, raising suspicion of singularity. However, both the factor analysis, show sufficient discriminant validity, as do the collinearity statistics presented above, suggesting the data does not suffer from singularity. The measurement model yields satisfactory discriminant validity as depicted in table 2. In order to assess convergent validity the factor loadings of items are examined. The factor loadings ranged from .60 to .96 (Table 3), thus exceeding the recommended cut-off point of .60 (Kline, 2011), indicating satisfactory convergent validity. Moreover, the results suggest no large standardized residuals exceed the threshold (.10). In order to obtain the reported model a modification to the initial model was made. Largrange multiplier test suggested an error correlation between indicators of a latent construct – i.e. behavioral intention. The error correlation between two items measuring intention was added. This suggests there is an omitted source of variability for this construct. Notably, the measurement model contains several factors with two indicators. This could lead to problems such as empirically under-identified models or non-convergence of iterative estimation. However, in a multi-factor model two indicators per factor are sufficient (Kline, 2011) and no such problems were encountered. The measurement model is depicted in Table 3 (see Appendix-I). Model fit could not be improved any further, without serious concessions to the theoretical underpinnings of the model. This is reflected in the modification indices Largrange multiplier and Wald test. In sum, the retained measurement model adequately measures all variables in the proposed extended theory of planned behavior.

**Structural Model**

The analysis of overall model-fit statistics indicated opportunities for improving the structural model.
Hence, the baseline model was modified in two ways. First, a direct path was added between social identity expressiveness and behavior. Second, an error correlation between indicators of the same latent construct (i.e. intention) was added on the conjunction of Lagrange multiplier test. The retained structural model indicated good model fit; Satorra–Bentler scaled $\chi^2 = 140.94$, $df=119$, $p = .08$, CFI = .99, RSMEA .02 (CI: .00, .03) and SRMR = .03. Moreover, the structural model did not show significant deterioration of the measurement model ($\chi^2_{\text{diff}}= 6.75$, $df= 6$, $p = .34$). In addition, we estimated an alternative model, reversing the path between self–identity expression and social identity, the model showed significant deterioration (Satorra–Bentler scaled $\chi^2 = 151.94$, $df=119$, $p = .02$). The retained structural model is represented in Figure 1 (see Appendix–II), with the estimated standardized path coefficients and explained variance ($R^2$) for each endogenous variable.

**Hypotheses Testing**

In the following paragraph the hypotheses testing is discussed providing the unstandardized coefficients and significance levels. The first hypothesis is threefold; attitude toward work–related social media use ($H_{1a}$), subjective norm ($H_{1b}$), and perceived behavioral control ($H_{1c}$) will have a positive effect on intentions to engage in this behavior. The structural model indicates attitude has a significant positive effect on intention ($B=.41$, $z = 6.02$, $p < .001$). Thus, hypothesis 1a was supported. In contrast, subjective norm ($B=.11$, $z = 1.65$, n.s.) and perceived behavioral control ($B=.04$ $z = .76$, n.s.) did not yield a significant effect on intention. Hence, hypotheses 1b and 1c were not supported.

The path from social identity expressiveness to intention was positively significant ($B= .32$, $z = 2.27$, $p < .05$), which provides support for hypothesis 2a. Hypothesis 2b assumes a positive effect of social identity expressiveness on self–identity expressiveness. The estimated path coefficient is positive and highly significant ($B=.68$, $z = 12.66$, $p < .001$), supporting hypothesis 2b. In turn, self–identity expressiveness was expected to positively influence intentions to engage in work–related social media use as reflected in hypothesis 3. The results indicate a strong positive effect of self–identity expressiveness on intention ($B= .63$, $z = 4.20$, $p < .001$). This suggests that people with a higher tendency for self–identity expressiveness will have higher intentions to engage in work–related social media use. Hence, hypothesis 3 was also supported. Ultimately, intentions are expected to predict behavior ($H_4$) as reflected in the TPB. The model yields a small but highly significant positive effect of intention on behavior ($B=.26$, $z = 5.71$, $p < .001$). Hence, hypothesis 4 was statistically supported.

**Decomposition of Effects**

The significance of total, indirect and direct effects of exogenous variables on endogenous variables is assessed by analysis of decomposition of effects. In Table 4 the decomposition effects of the model are presented. The retained structural model explained a considerable amount of the variance in intentions ($R^2 = .70$), and in actual work–related social media use ($R^2 = .68$). Moreover, the
model explains 63 percent of the variance in self–identity expressiveness. As shown in Figure 1, the model contains several indirect effects. The indirect effects are estimated statistically as the product of direct effects that constitute them. The indirect effect of social identity expressiveness on intentions to engage in work–related social media use is the product of the direct effects of the constituent paths, social identity expressiveness mediated by both self–identity expressiveness and intention. Self–identity expressiveness has an indirect effect on actual work–related social media use, mediated by intention (B= .17, z = 3.13, p < .001). Table 4 provides all total effects, indirect and direct effects represented in the model.

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<tr>
<th>Dependent Variable</th>
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<td>.04 (.76)</td>
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* p < .05
z-values are in parentheses

Table 4. Decomposition of Total, Indirect and Direct Effects for the Retained SR Model

DISCUSSION AND CONCLUSION

The study presented an extended TPB to explain employees’ work–related social media use. The results show support for the extended TPB model. Notably, we found no support for the hypotheses linking perceived behavioral control and subjective norm to intention to engage in work–related social media use. Thus, the traditional constructs of the TPB were relatively weak in predicting work–related social media. The addition of identity expressiveness to model proved to be fruitful. We found strong support for the hypotheses linking expressiveness to behavioral intentions. These results are in line
with earlier applications of the model explaining both multimedia messaging and social network site use of adolescents (Pelling and White, 2009; Thorbjørnsen, et al., 2007). The conclusions are twofold:

First, employees’ work–related social media use may not always be deliberate and consciously planned. In the structural model, intentions to engage in work–related social media use yields a relatively small effect on actual behavior. Rather, these online behaviors are largely unintentional, impulsive and spontaneous, driven by a need to express one’s identity. The results show a strong direct effect of identity expressiveness on behavior. Hence, work–related social media use is better understood in terms of identity expressiveness than in terms of behavioral intentions or attitude towards social media behavior.

Second, although attitude had a significant effect on behavioral intention, overall, the TPB provides a weak framework to explain work–related social media use. As was found in previous studies (e.g., Baker and White, 2010; Pelling and White, 2009), perceived behavioral control did not significantly affect intentions to use social media. In general, respondents indicate they had high control over their online behaviors ($M=5.55$ on a 7-point scale). Possibly, due to the perceived user friendliness of social media and familiarity of individuals with social media, self–efficacy neither imposes restrictions nor induces motivations to engage in work–related social media use. Moreover, employees do not engage in work–related social media use as a result of their perceived subjective norm. In conclusion, the traditional TPB provides only weak predictive capabilities for work–related social media use, whereas self–identity expressiveness and social identity expressiveness are more valuable in explaining work–related social media use. The study testifies to the importance of identity expressiveness on social media as theorized by Kaplan and Haenlein (2010) and empirically shown in relation to MMS use (Thorbjørnsen et al., 2007) and SNS use (Pelling and White, 2009). This study shows that in the workplace, social media are primarily ‘social’ in the sense that it is the place where identities are developed, negotiated and communicated.

Especially social identity expressiveness strongly predicts employees’ work–related social media use. Whereas, self–identity expressiveness yields a convincing indirect effect on work–related social media use. This means that work–related social media use should be understood as a means for employees to express themselves to others. Self and social identity expressiveness directly affect behavior, suggesting that the more work–related social media use is a salient part of employee’s identity the greater their work–related social media use. These results correspond with findings from Pelling and White (2009) who found that identity expressiveness directly affected young adolescent’s use of social networking sites. Similarly, Pagani et al., (2011) found direct effects of expressiveness on social network use. This study shows these relationships apply to employees in a work–related context as well.
**IMPLICATIONS**

Employees use social media to talk about work primarily because it enables them to construct, negotiate and express their identities. They do so using their personal networks suggesting both personal and professional identity features coalesce and are communicated within an individuals’ network simultaneously. Employees are most likely to engage in work-related social media use when they believe the medium enables them to successfully convey identity features. Therefore, congruence between corporate values and employee values is important, as employees are able to use corporate values to communicate personal identities as well. Value alignment could lead to increased work related social media use enabling employees’ to talk about the organization and thereby influence corporate reputation. Furthermore, the findings have important implications for the public. The Internet and social media are progressively important sources of information as individuals rather take cues from one another than from institutional sources like organizations (Charron, Favier and Li, 2006). This is in part based on the perception that user generated content is perceived as more authentic and more credible than organization directed content. The findings presented here imply that these evaluations of credibility and authenticity apply to employees as well as they lack strategic intent in their work-related social media use. The present study shows that expressiveness strongly influences behavior, corresponding to the notion that work-related social media use might not be planned, rather it emerges spontaneously in part driven by a need to convey favorable aspects of social and self-identity. As such this behavior can best be characterized in terms of expressing and maintaining identities.

**LIMITATIONS AND FUTURE DIRECTIONS**

Future research might elucidate the differences between media channels and the effect of these differences on motivations to engage in work-related use. With the rise of enterprise social media such as Yammer, it would be interesting to see whether the results hold for enterprise social media, which are not publicly available, but whose use is restricted (i.e. to organizational members). As such, enterprise social media may provide a more sophisticated means to manage impressions within specific groups (Dubrin, 2011). Another limitation might be the way respondents were recruited. We issued a general call to participate using email. These calls were used in our own network, which might have led to a relative young sample. Prior research uncovered age differences in employees’ use of advanced technologies (Morris and Venkatesh, 2000). Combined with their potentially higher self-definitional needs and familiarity and upbringing in Web 2.0 environments (Pfeil, Arjan and Zaphiris, 2009), this might explain why these employees in particular might engage in work related social media use to express features of their identity. However, this sample is of particular interest when examining work-related social media use, as younger employees more frequently engage in social media use than older employees (Verhoeven, 2012). Finally, the
explained variance reported in this study is very high. Notably, these figures are in correspondence with previous adoption of the model (e.g., Thorbjornsen, et al., 2007). Yet, the high explained variance could be a by-product of high correlations between independent variables. In addition, this study relied on self-reports and cross-sectional data, increasing the possibility of common method bias and inflated explained variances. Future research could aim at replicating the results using observation techniques or longitudinal designs. In sum, we acknowledge more questions await future investigation, for example, can these results be replicated with a sample representative of the workforce? And do these results apply to other social media channels (e.g., enterprise social media) as well? Nonetheless, this study provides a starting point and solid foundation for understanding employees’ social media use for work.

REFERENCES


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$^*$ $p < .05$

$a$ Unit loading indicator constrained to 1

Table 3. Measurement Model, Extended TPB
Appendix II

Figure 1. Structural Model with Estimated Standardized Path Coefficients and Explained Variance for Endogenous Variables

Model fit indices:
Satorra-Bentler $\chi^2 = 144.45$
$df = 119$
$CFI = .99$
RMSEA = .02 [.00, .03]

*a p < .05
b Unit loading indicator constrained to 1

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