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An analysis of fear factors predicting enterprise social media use in an era of communication visibility

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Abstract

Purpose – The benefits associated with visibility in organizations depend on employees' willingness to engage with technologies that utilize visible communication and make communication visible to others. Without the participation of workers, enterprise social media have limited value. This study develops a framework to assess what deters and drives employees' use of enterprise social media.

 $\label{lem:posterior} \textbf{Design/methodology/approach} - \text{Data were collected from 753 employees of a global company using an online survey. The response rate was 24.5\%. The authors used structural equation modeling to test the hypothesized framework.}$

Findings – The results show that various fears by workers may deter or motivate enterprise social media use. This offers an alternative viewpoint for examining the consequences of communication visibility in organizations. Specifically, the findings demonstrate that the fear of accountability and the fear of losing uniqueness reduce enterprise social media use through increased codification efforts. The fear of missing out is directly and positively related to collecting behaviors on enterprise social media.

Research limitations/implications – Expectations about participation in visible organizational communication environments are rising. However, as individuals may experience anxiety in such settings, the authors need to direct more analytical focus to the ways individuals manage communication visibility in organizing contexts and develop a deeper understanding of the consequences of fear in workplace communication.

Originality/value – The analysis recognizes that fear can play a key role in deterring or motivating workers' specific choices in navigating the challenges that occur when technology can make communication broadly visible. This study uses theorizing on communication visibility to bring together different fear mechanisms to predict enterprise social media use.

Keywords Fear, Enterprise social media, Visibility, Codification effort, Knowledge sharing **Paper type** Research paper



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1. Introduction

Scholars examining social media technologies in organizing contexts have argued that facilitating greater visibility of communication and work practices within groups is key to improving performance (Cao et al., 2016; Suchman, 1995). The logic supporting the benefits of systems that increase the potential visibility of organizational communication is that these technologies can support the development of meta-knowledge (Leonardi, 2015) and aid the identification of opportunities for knowledge transfer or recombination (Leonardi, 2014). For instance, research demonstrated that visibility afforded by enterprise social media (hereafter: ESM) presents opportunities for knowledge acquisition and knowledge provision (Sun et al., 2020a) while also affecting the impression management strategies employees utilize (Sun et al., 2021).

There are various ways in which workers might use ESM to increase visibility into communication within an organizational context. Treem *et al.* (2020, p. 46) define communication visibility as a multidimensional construct that consists of "the outcomes of activities through which actors strategically or inadvertently: (1) make their communication more or less available, salient, or noticeable to others, and (2) view, access, or become exposed to the communication of others, as they (3) interact with a particular socio-material context." Therefore, communication visibility can be facilitated by efforts of individuals contributing to a technology platform, observations of others using the platform, or features of the platform that make communication more or less available to users. Yet, despite the multiple avenues by which technologies might increase communication visibility, the eventual level of visibility depends on individuals' willingness to engage with a platform.

Because the benefits of an ESM system are tied to the extent workers use the platform to access information or make information available to others, without employees' participation, ESM systems provide minimal value to an organization (Agarwal and Prasad, 1997; Li *et al.*, 2021). Importantly, this seems to be a prevalent problem as research has demonstrated that soon after ESM adoption, enthusiasm about usage swiftly drops (Veeravalli and Vijayalakshmi, 2019). It is predicted that as much as 80% of these platforms fail to materialize their intended goals (Li, 2015), mainly due to low use of ESM among employees (Denyer *et al.*, 2011; Sun *et al.*, 2020a). Engaging workers to adopt ESM remains a key organizational challenge (Meske *et al.*, 2019; Li *et al.*, 2021; Ma *et al.*, 2021; Sun *et al.*, 2020a, b). Therefore, there is a need to explore mechanisms that may forestall or facilitate ESM use.

One influence on whether individuals will engage with technology is fear, concern, or apprehension associated with use (Ayyagari *et al.*, 2011). The visible nature of communication on ESM may fuel fear as visible traces of communication between users can allow various forms of surveillance (Zuboff, 2019) and increase employees' fear of control (Ciborra, 1996). In addition, Razmerita *et al.* (2016) argue that fear is an important barrier to knowledge sharing in organizations. Specifically, Treem (2015) describes how visible communication on social media creates a performative space that increases the accountability of workers. The fear of accountability has been discussed in scholarly work on knowledge sharing in organizations with similar concepts such as the fear of criticism and the fear of losing face (Ardichyili *et al.*, 2003; Razmerita *et al.*, 2016).

Additionally, research has suggested that communication visibility can cause employees to engage in knowledge hiding as they fear losing their unique competencies, reputation, or competitive positioning (Chen et al., 2020). Kankanhalli et al. (2005) explain that knowledge is an important source of power. Putting knowledge, gradually gained through individual successes and failures, on display may reduce the power gained from the possession of unique knowledge. Indeed, employees may fear giving up power when making their knowledge known to others in the organization (Razmerita et al., 2016). Finally, Veeravalli and Vijayalakshmi (2019) described how a manager they interviewed explained that "barriers to participation in ESM include 'fear of losing credit' and 'fear of being evaluated'" (p. 140).

Hence, the fear of accountability and the fear of losing uniqueness are associated with communication visibility and can be identified as important barriers to ESM use.

However, fear may also drive technology use. Especially in social media, the fear of missing out is often cited as a motivator of platform use (Tandon *et al.*, 2020, 2021a, b). The fear of missing out is particularly salient in highly visible communication environments as *seeing* the experiences, activities, knowledge and achievements of others may create a strong feeling of missing out on similar gratifying experiences of relevant others within a social group (Przybylski *et al.*, 2013). As such, we draw from previous research on three fear factors – i.e. fear of accountability, fear of losing uniqueness and fear of missing out – to examine how these factors are motivating or deterring ESM use. Though these fear factors are conceptually distinct, they come together and become particularly salient in employees' choices to contribute or view communication in highly visible communication environments. Thus, from a communication visibility perspective, these factors constitute a theoretical basis for our study, which we label the fear framework.

Importantly, research indicates that fear influences how workers share knowledge (Fang, 2017) and their decisions regarding using social media technologies (Tandon et al., 2021b). Building on this understanding, we identify two relevant mechanisms related to fear and making communication visible through ESM in an organizational context: workers' difficulty documenting information (i.e. codification effort) and their intentions to share knowledge (i.e. sharing intention). Codification effort refers to the time and energy needed to make information or knowledge available to others and is considered an executional cost negatively impacting sharing behavior (Kankanhalli et al., 2005; Liu and Rau, 2014). We argue that fear of losing uniqueness and fear of accountability may increase the execution costs of making information visible on ESM as employees may expend greater effort to protect valued resources and mitigate the risk of shared information "backfiring." In addition, knowledgesharing intentions are conceptualized as an important mediator in our fear framework. Research has demonstrated that the fear of losing uniqueness reduces sharing intentions (Liu and Rau, 2014) while sharing intentions are widely demonstrated predictors of actual sharing behavior (Ahmed et al., 2019). Hence, a central aim of this study is to test an integrative framework of fears that drive and inhibit ESM use directly and indirectly through codification efforts and knowledge-sharing intentions.

This study makes at least two contributions. First, by exploring three types of fears related to ESM use which are particularly salient in the context of navigating complexities associated with visibility, this study demonstrates that the fear of accountability, fear of losing uniqueness and fear of missing out may, directly and indirectly, affect choices to engage in, or disengage from, ESM use. In doing so, we integrate and expand the previous theorizing on fear in organizational contexts and employees' technology use. Rather than focusing on the negative or positive implications of a specific fear, this study proposes a framework that integrates various fear factors that simultaneously persuade and dissuade employees from engaging in ESM use. The proposed framework seeks to inspire research to move toward a more comprehensive and holistic view of fear as an important driver of employees' choices in technology use (Tandon *et al.*, 2021c). It identifies mediating mechanisms that provide a better understanding of how fear relates to ESM use. This study demonstrates that communication visibility is an important perspective unifying fragmented research initiatives on fear in employees' social media choices.

Second, this work builds upon perspectives that recognize the tensions and contradictions present in the use of technologies that potentially expand visibility (Gibbs *et al.*, 2013; Majchrzak *et al.*, 2013; Salo *et al.*, 2018). Specifically, this study seeks to specify the ways workers respond to fears in relation to technology use. These results provide insight into how employees engage with ESM in an environment of competing visibilities, accountabilities and opportunities. This study seeks to provide an integrated and comprehensive perspective on

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how fear, as a pervasive human emotion, has implications for organizational behaviors regarding the use of technologies that afford greater visibility of communication and behavior.

2. Theoretical framework

2.1 ESM use, visibility and fear

Kish-Gephart et al. (2009) noted that fear in organizations has important implications that may inform our understanding of employees' communicative behaviors (e.g. silence) and extend to other organizational behaviors and outcomes. Fundamentally, the experience of fear functions to protect a person from a threat, resulting in responses such as withdrawal. avoidance, or more proactive responses such as dealing with or facing a potential or existing threat (Lebel, 2017). Scholars draw from various theoretical perspectives to understand how fear informs technology use in organizational contexts. These include the social comparison theory (Reer et al., 2019), the stressor-strain-outcome model (Tandon et al., 2021b) and the appraisal tendency framework (Xu et al., 2020). Regardless of the theoretical perspective, a functional view of emotions suggests that (negative) emotions such as fear can be adaptive by motivating and coordinating action (Lebel, 2016). Fear as a motivational orientation may lead to avoidance or approach – flight or fight – strategies (Maner and Gerend, 2007), which may involve knowledge hiding and knowledge sharing in the context of social media use (Fang, 2017). Hence, as a powerful and pervasive human emotion, fear encourages avoidance and approach responses and may influence a wide array of organizational behaviors, including communication, knowledge sharing and technology use (Fang, 2017; Kish-Gephart et al., 2009). This study builds on theorizing about fear as a powerful motivator for workers to pursue or avoid a particular course of action. We suggest that fear of the consequences of providing or forgoing communication visibility opportunities informs how employees interact with ESM technologies.

Several scholars have suggested that the potential visibility – of activity and content – afforded by technology may deter or encourage participation in organizing contexts (e.g. Gibbs et al., 2013; Sun et al., 2019, 2020b; Yang et al., 2021). We posit that decisions about making communication more or less visible may in part be driven by the fear of the consequences of such actions. For fear specifically, to be a relevant lens to explore ESM use, there needs to be a threat associated with the use or non-use of the technology (Witte, 1992). For workers this threat can emerge in different ways, for instance, such that visible technology use and associated communication might be used by other organizational members to assess a worker's knowledge or ability. Specifically, visible communication can form a threat because employees may be held accountable for what they make visible (Treem. 2015) and the visibility of communication to third parties may cause contributors of information to lose their uniqueness (Fang, 2017; Renzl, 2008; Wasko and Faraj, 2005) and visible communication may highlight activities and experiences of other users that individuals may miss out on (Tandon et al., 2021a). Hafermalz (2021) proposes that fear of exile makes "visibility something 'we cannot not want." (p. 710). Given the exilic dynamic in contemporary organizations, a fear of missing out can drive the proliferation of social media technologies in organizations as workers seek commitment to distant others.

Notably, research on fear in organizational contexts has identified several fear factors relevant to understanding organizational behavior, including, but not limited to, other-referenced fear (e.g. fear of exploitation), self-referenced fear (e.g. fear of isolation) (Fang, 2017) the fear of change and fear of risk-taking (Appelbaum *et al.*, 1998). Others have examined how fear appeals may motivate employee behavior (Son, 2011) or highlight the importance of fear intensity at work (Kish-Gephart *et al.*, 2009). Although we acknowledge that the *fear of accountability, fear of losing uniqueness and fear of missing out* are not the only

fears identified in organizational contexts, these factors have been explicitly linked to social media technologies, knowledge sharing in organizations and the notion that employees navigate dialectic tensions related to the visibility of their and others' communication.

2.2 Fear of accountability

Building on Suchman's (1995) concept of "technologies of accountability," Treem (2015) found that workers in a financial services firm were reluctant to adopt ESM as employees feared being held accountable for what they communicated. ESM facilitates accountability in multiple ways, both by creating a material, visible and retrievable records of activity, but also in conveying messages that the communicator is accountable for providing (Treem, 2015). As a result, when individuals engage with these technologies, they create a performance that may be assessed contemporaneously and over time (Leonardi and Treem, 2012). The nature of this accountability is influenced by the materiality of ESM that makes communication persistent and the organizational context in which workers are likely to be interdependent and have repeated interactions.

When assessed in terms of its outcomes for group performance, visibility and consequentially accountability can have positive consequences for an organization in terms of improved meta-knowledge, avoided knowledge duplication and opportunities for innovation (Leonardi, 2014). However, at the individual level, this accountability has paradoxical characteristics. On the one hand, greater visibility may be empowering (Leonardi, 2014). Still, on the other hand, it may offer ways to keep organizational members and peers under surveillance (Berner et al., 2014). Information systems provide new ways of organizing and self-control as they document and display work within group settings (Treem, 2015). A commonly accepted premise is that increased visibility demonstrates that the organization, or individual, is more transparent and, by extension, is more accountable and ethical (Flyverbom et al., 2016). However, when individuals recognize the potential consequences of communication visibility, they may seek to avoid greater transparency.

For example, research suggested that increases in visibility may make employees less likely to engage in deviant online behaviors for fear of being caught (Nivedhitha and Sheik Manzoor, 2020). In addition, research on online knowledge sharing has demonstrated that individuals may avoid participation on platforms based on fear of criticism, fear of personal feedback, or fear of losing face (Ardichvili *et al.*, 2003). These sources of fear center on the notion that one may be held accountable for the information they share online. Similarly, Veeravalli and Vijayalakshmi (2019) noted that a fear of being evaluated dissuades employees from engaging with ESM technologies. Given empirical work indicating that workers demonstrate concern about the accountability ESM platforms may create and that this may present a barrier to the actual use of the social media system (Gibbs *et al.*, 2013; Treem, 2015), we hypothesize:

H1. The fear of accountability is negatively related to ESM use.

2.3 Fear of losing uniqueness

Though broadly seen as beneficial to organizations or groups, the use of collaborative knowledge-sharing platforms – like ESM – may present adverse effects for knowledge contributors. Employees gradually gain valuable knowledge through work experiences, including their successes and failures. Individually held knowledge is valuable as it enables employees to exceed the performance of their colleagues, achieve individual or organizational goals, seize opportunities and increase individual rewards (Huang *et al.*, 2008). As such, individuals are anxious about giving away valuable knowledge while being offered little in return (Renzl, 2008), as is typically the case when making communication publicly available

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(Rice *et al.*, 2018). Giving away one's knowledge in a network may cause contributors to lose their unique value and benefit within a group (Wasko and Faraj, 2005). Hence, ESM may create an environment where it may seem irrational to voluntarily contribute time, effort and knowledge toward the collective benefit (Liu and Rau, 2014; Wasko and Faraj, 2005). This may be especially true when employees fear that making their knowledge and know-how available to others in the organization may make them redundant – a dynamic we label the *fear of losing uniqueness*. Indeed, Renzl (2008) notes that the fear of losing uniqueness reflects the notion that making knowledge visible may cause the knowledge provider to lose their unique value relative to others – i.e. everyone benefits except the knowledge contributor. This fear may be an important barrier preventing employees from embracing or actively using ESM platforms.

Previous research on knowledge sharing has long shown the potential for those contributing knowledge in interdependent settings to lose their unique value relative to what others know (Thibaut and Kelley, 2017). This consequence has been documented in the use of online repositories in organizing contexts, where individuals may view sharing knowledge with a collective as irrational (Bock *et al.*, 2005; Wasko and Faraj, 2005). Similarly, the fear of becoming replaceable has been identified as an important barrier to knowledge sharing on online platforms (Sajeva, 2007; Razmerita *et al.*, 2016), while others have indicated that the fear of losing power may form a barrier to sharing knowledge on ESM (Trier *et al.*, 2017). This issue may be magnified in ESM use where unknown third parties may benefit from shared knowledge and knowledge is accessible far beyond intended recipients (Leonardi, 2014, 2015). In social networking, Fang (2017) noted that the fear of losing power – i.e. the perception that sharing knowledge leads to losing power – led employees to engage in knowledge hiding and reduced sharing behaviors. Based on previous scholarship regarding employees' concerns about losing uniqueness, we hypothesize:

H2. The fear of losing uniqueness is negatively related to ESM use.

2.4 Fear of missing out

As a performative space, ESM presents opportunities for workers to actively shape how they are perceived within a group and gain valuable insights into the actions and relations of other organizational members. When individuals have greater exposure to the activity of others around them, it increases the potential for them to develop a sense that they are missing out on opportunities or information – what is termed *fear of missing out* (FoMO; Przybylski *et al.*, 2013). FoMO is defined as the feeling that others may have more rewarding experiences from which one feels excluded (Przybylski *et al.*, 2013). Although FoMO is not necessarily an online phenomenon, research has linked FoMO to the increased use of digital technologies including social media (Reer *et al.*, 2019; Tandon *et al.*, 2021a). The fear of missing out (Blackwell *et al.*, 2017) has, for instance, been linked to public social media use (Przybylski *et al.*, 2013) and social media fatigue (Bright and Logan, 2018). This focus is not surprising as social comparison theory suggests that people have an innate drive to evaluate their opinions and abilities, often by comparing with others (Festinger, 1954). The ease with which social media, including ESM, make information about what others do visible makes these platforms ideally suited for such comparisons.

Specific to work environments, scholars have noted that the increased reliance on technology to keep up with others may trigger FoMO (Budnick *et al.*, 2020; Hafermalz, 2021). This workplace FoMO is defined as "pervasive apprehension that, relative to other employees, one might miss valuable career opportunities when away or disconnected from work" (Budnick *et al.*, 2020, [no pagination]). As such, FoMO at work would emerge as a fear of missing information that could lead to opportunities for rewarding experiences. In contrast to the other fear factors that may deter participation with an ESM, the FoMO may yield opposite

effects and lead to increased platform use. Budnick *et al.* (2020) found that workplace FoMO is positively related to social media engagement and information seeking, such as message checking behavior. They argued that workplace FoMO might serve as a motivational resource that triggers individuals to engage in work-related communication more frequently.

Although some studies seem to suggest that FoMO is predominantly related to information-seeking behaviors (Rogers and Barber, 2019), it is also associated with (compulsive) social media use more generally (Budnick *et al.*, 2020; Tandon *et al.*, 2020, 2021a). Hence, the fear of missing out as a motivational resource (Budnick *et al.*, 2020) may lead individuals to increase their desire to more frequently engage "with work-related technologies to avoid resource deficits (i.e. missing affiliation or information-sharing opportunities)" [no pagination]. As such, we hypothesize the following:

H3. The fear of missing out is positively related to ESM use.

2.5 Role of codification effort and knowledge-sharing intentions

Though the material features of ESM make communication visible to others in an organization, it still requires action and effort from employees to provide that communication. When workers perceive that technology will be challenging, it deters use (Agarwal and Prasad, 1997). Similarly, individuals may vary in their motivation or intention to share knowledge (Bock *et al.*, 2005). Hence, we consider the mediating role of codification effort and knowledge-sharing intentions in our analysis of how fear relates to ESM use. Chen and Kuo (2017) found that the effort needed to convey knowledge is a significant barrier for employees to use ESM. Renzl (2008) referred to a social dilemma in collective knowledge sharing, suggesting that the fear of losing uniqueness reduces individuals' sharing intention. As such, codification effort would be negatively related to ESM use, while knowledge-sharing intentions would be positively related to ESM use. These mediators are particularly salient in the context of the fear of accountability and the fear of losing uniqueness, as opposed to the fear of missing out, as these fear factors increase perceived individual consequences of sharing information.

2.5.1 Fear of accountability. The fear of being held accountable for visible communication may reduce the anticipated benefits of workers' contributions. It creates the potential of communication being criticized, misinterpreted, or misused by others (Razmerita et al., 2016; Treem, 2015). Hence, the reluctance to face accountability may lower the use of social media systems (Treem, 2015) as it increases the codification effort – i.e. the amount of effort needed to codify and share knowledge. Given the high visibility environment, costs associated with ESM use, such as codification efforts, may increase as workers seek to avoid being misunderstood or called out on information they shared (Sajeva, 2007; Razmerita et al., 2016). When ESM operates as a "technology of accountability," the use of these platforms may decrease (Treem, 2015) because users may feel they need to expend too much effort to avoid or minimize a backlash of being held accountable for information at a later point in time. In addition, a fear of accountability might indicate a lack of trust, which is an essential prerequisite for knowledge-sharing intentions in organizations (Staples and Webster, 2008). It is well established that individuals tend to respond to accountability in a way that is relatively easy for them to defend and most likely to result in a favorable outcome (Wang et al., 2014). Hence, if individuals feel that information might be inaccurate or not valued by others (now or in the future), and they can be held accountable for that information, they will have a lower intention to share that knowledge. Thus, we hypothesize:

H4a. Codification effort mediates the relationship between the fear of accountability and ESM use, such that the fear of accountability increases codification effort, which in turn is negatively related to ESM use.

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H4b. Knowledge-sharing intentions mediate the relationship between fear of accountability and ESM use, such that the fear of accountability reduces knowledge-sharing intentions, which in turn is positively related to ESM use.

2.5.2 Fear of losing uniqueness. The fear of losing uniqueness may increase efforts to codify knowledge and reduce one's intention to share knowledge (Šajeva, 2007) so that their knowledge advantage is not compromised. For instance, Ford and Staples (2010) indicated that uniqueness was related to partial knowledge sharing. Workers actively navigated complex decisions about withholding some relevant information while still sharing other parts of information. This suggests that combating the fear of losing uniqueness requires more effort in codifying knowledge and that individuals may reduce intentions to share knowledge to protect a knowledge advantage. Fears associated with the possibility that knowledge sharing will threaten an individual's job security reduce workers' sharing intentions (Davenport, 2005) because withholding knowledge (rather than sharing) is likely to result in greater personal benefits (Wang et al., 2014).

Renzl (2008) found that trust was important for increasing knowledge sharing because it reduced one's fear of losing their unique value. Hence, we suggest that the fear of losing uniqueness reduces the intention to share knowledge, as giving away knowledge does not benefit the contributor, thus providing little incentive to share (Wasko and Faraj, 2005). To protect one's uniqueness, workers may engage in partial knowledge sharing (Ford and Staples, 2010); however, this increases codification efforts as it might require more effort only to codify the aspects of knowledge an individual wants to share and contribute to collective goals while protecting their unique value. Ultimately, the barriers (or costs) to use can become too high relative to the anticipated advantages (or benefits) of using ESM (Razmerita et al., 2016; Renzl, 2008). In sum, the fear of losing uniqueness may not only lead to reduced sharing intentions but could also increase codification efforts as individuals strategically share their knowledge while maintaining (some of) their knowledge advantage. Thus, we hypothesize that the fear of losing uniqueness may increase the costs (perceived codification effort) and reduce motivation (sharing intentions) to use ESM.

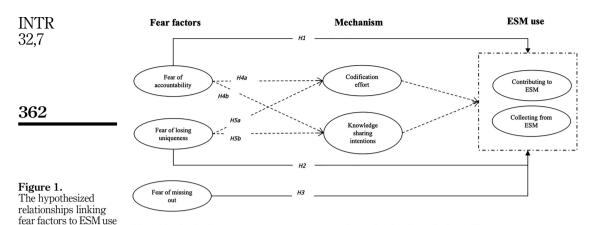
- H5a. Codification effort mediates the relationship between the fear of losing uniqueness and ESM use, such that the fear of losing uniqueness increases codification effort, which in turn is negatively related to ESM use.
- H5b. Knowledge-sharing intentions mediate the relationship between fear of losing uniqueness and ESM use, such that the fear of losing uniqueness reduces knowledge-sharing intention, which in turn is positively related to ESM use.

Figure 1 provides a visual representation of our hypothesized model.

3. Method

3.1 Sample

Our research site for the study was a large Scandinavian natural resources company operating in 14 countries across the globe employing roughly 5,000 employees. The organization implemented an ESM approximately ten months before our survey, and it was made available to all office workers of the company. Before the implementation, the company had a traditional SharePoint-based intranet used mainly for one-way, top-down information sharing and was updated by the communication department. The new ESM platform enabled workers to update their profile page, post content, edit messages and comment on, follow and like others' contributions, mimicking most of the features we know from public social media tools such as Facebook. As communicated in the onboarding campaign, the rationale for implementing the ESM was to facilitate a new mindset to ensure a more agile and productive



Note(s): Dashed arrow connectors represent hypothesized mediation effects

workplace where everyone can participate and take ownership — both at the office and through mobile devices while away from work. In addition, the global nature of the company requires information and collaboration across borders to innovate, connect, collaborate and learn from colleagues across the globe. The anticipated benefits of the ESM included increased transparency and the ability to get to know colleagues and relevant information from around the world. In addition, for line managers, the new platform was anticipated to provide more efficiency in engaging their teams and keeping them up to date. Finally, the platform intended to declutter information and communication structures by reducing mass emailing, using other communication tools or apps (such as WhatsApp and Slack) and reducing SharePoint team sites and newsletters.

We invited the company's office employees as they were provided access to the ESM technologies. We sent out survey invitations to 3,070 office employees, of which 753 returned a completed survey. Hence, the response rate was 24.5%. Employees working in office roles provided engineering, marketing and consulting services for the company's products. The typical workweek of employees lasted $42 \, \text{h}$ (SD = 7.02), and the average organizational tenure was $10.30 \, \text{years}$ (SD = 10.81). Most of our respondents were male, $59.8 \, \text{and} \, 40.2\%$ were female, and the average age was $42.64 \, \text{years}$ (SD = 11.04). Most respondents held a university degree (53.1%). Additionally, 28.8% had an applied science degree.

3.2 Measures

Table 1 provides validity statistics for the presented measures.

ESM use was measured by articulating a list of the most commonly occurring activities on the platform. This measure was constructed in close collaboration with communication managers on-site to ensure these activities reflect actual communication processes in the company. Respondents were prompted to indicate how frequently they performed these activities on the ESM platform; responses ranged from (1) never to (6) multiple times per hour. Broadly these items reflect two types of behaviors commonly differentiated in the literature on ESM use: contributing (e.g. posting) and consuming (e.g. reading posts) (Kügler and Smolnik, 2014; van Zoonen et al., 2021). The confirmatory factor analysis reported below demonstrated two factors – i.e. contributing to ESM (three items) and collecting from ESM (three items). Items measuring contributing were: "Post to [ESM]", "Edit something you've posted earlier on [ESM]", and "Comment on a post on [ESM]." Three items were employed to

Variable	M (SD)	CR	${\rm AVE}$	$M\!SV$	AVE MSV MaxR(H)	1	2	3	4	2	9	7	8	6	10	11 12	\sim
1. Contributing to ESM	1.36 (0.48)	0.82	09.0	0.48	0.84	0.77											
2. Collecting from ESM	2.19 (0.66)	0.78	0.55	0.48	0.82	0.69	0.74										
3. Fear of missing out	3.45 (1.16)	0.73	0.40	0.18	0.75	0.02	90.0	0.63									
4. Fear of losing	2.24 (1.16)	0.89	89.0	0.18	0.92	-0.07	-0.17	0.36	0.83								
uniqueness																	
5. Fear of accountability	2.93 (1.29)	0.87	0.62	0.18	0.87	-0.00	-0.07	0.43	0.42	0.79							
6. Codification effort	4.29 (1.42)	0.89	0.72	0.08	0.93	-0.18	-0.23	0.13	0.23	0.20	0.85						
7. Knowledge-sharing	3.78 (0.67)	0.83	0.50	0.09	0.85	0.23	0.29	-0.05	-0.23	-0.07	-0.29	0.71					
intent																	
8. Gender	1.40 (0.49)	I	I	I	I	0.08	0.19	0.04	-0.09	0.01	-0.11	0.03	I				
9. Age	42.64 (11.04)	I	I	I	I	0.04	-0.05	-0.14	-0.04	-0.04	0.01	-0.03	-0.12	I			
10. Work hours per week	37.44 (4.72)	I	I	I	Ι	0.02	90.0	-0.00	-0.02	-0.01	-0.05	0.05	-0.04	-0.05	ı		
11. Managerial position	1.19(0.40)	I	I	I	Ι	0.11	0.08	-0.07	-0.11	-0.06	-0.03	0.11	-0.13	0.16	0.08	ı	
12. Organizational tenure	10.30 (10.81)	I	Ι	Ι	Ι	-0.01	-0.05	-0.01	0.00	0.03	0.08	-0.12	-0.08	0.65	80.0	0.04	
Note(s): $CR = Composite$	Reliability; $AVE = Average V$	$E = A_1$	verage 1	Varianc	e Extracted;	MSV =	cted; MSV = Maximu	ım Shared Vari	ਲ	ice; Max	nce; MaxR(H) = N	Iaximun	construe	ct reliabi	lity. Squ	are Root	ot
of the AVE is reported on	the diagonal.	orrelat	Correlations \pm (0.06 are	significant	cant at $p < 0.05$.05										

Table 1. Factor correlation matrix with validity statistics

measure collecting behaviors (e.g. lurking): "Read other people's posts on [ESM]", "Collect information from [ESM] that was posted by others", and "Like a post on [ESM]." Notably, although liking might be considered an active contribution, employees often use the feature to keep track of the conversation that follows the initial post. Also, statistically, liking did not demonstrate significant cross-loadings with contributing behaviors.

The *fear of accountability* was measured using four items based on Treem (2015). The items were measured on a seven-point Likert scale ranging from (1) strongly disagree to (7) strongly agree. Sample items include "I fear that my online communication might be misinterpreted by other organizational members" and "I am worried I will be held accountable for something I communicated online."

The *fear of losing uniqueness* in the crowd was measured using four items based on Wasko and Faraj (2005). Items were measured on a seven-point Likert scale ranging from (1) strongly disagree to (7) strongly agree. A sample item includes "If I provide everybody with my entire know-how, I am afraid of being replaceable."

The *fear of missing out* was measured using four items adopted from Przybylski *et al.* (2013). Respondents were asked to reflect on their everyday experiences concerning each of the statements; responses were anchored (1) not at all true of me to (5) extremely true of me. Sample items include "I fear others have more rewarding experiences than me" and "Sometimes I wonder if I spend too much time keeping up with what is going on (r)."

Codification effort measures employees' effort to articulate and share their knowledge and know-how with others through communication technologies. Based on Wasko and Faraj (2005), three items were stated to examine these efforts, including "It is laborious to codify my knowledge on [ESM name]." Response anchors ranged from (1) strongly disagree to (7) strongly agree.

Knowledge-sharing intentions are measured using five items previously utilized by Bock et al. (2005). Sample items include "I intend to share my experiences or know-how from work with other organizational members more frequently in the future" and "I will provide insights into where knowledge is, or who knows whom, at the request of other organizational members." Responses ranged from (1) strongly disagree to (5) strongly agree.

3.3 Analysis

The hypothesized model was tested using structural equation modeling (SEM). As the distribution of ESM use indicates skewed data distributions, with most observations around the lower end of the scale, bootstrapping (5,000 bootstrap re-samples) was used to obtain biascorrected estimates for the model – e.g. standard errors and confidence intervals. Bootstrapping is a nonparametric approach to effect-size estimation and hypothesis testing that makes no assumptions about the shape of the distribution. In addition, bootstrapping computes more accurate confidence intervals for parameter estimates of indirect effects ($x \rightarrow m \rightarrow y$) than the more commonly used causal steps strategy and the Sobel test (Preacher and Hayes, 2008).

In addition, in the analysis, we consecutively modeled potentially confounding factors – i.e. gender, age, working hours per week, managerial position and organizational tenure. Gender yields a positive relationship with collecting information from social media (B=0.183, p=0.001) and a negative relationship with codification effort (B=-0.317, p=0.004), indicating that female employees are more likely to collect information from social media. In contrast, male employees experience higher codification efforts. In addition, managerial position was positively related to knowledge-sharing intentions (B=0.155, p=0.020), as well as to collecting (B=0.113, p=0.035) and contributing (B=0.124, p=0.022) information on ESM. These findings indicate that managers had higher knowledge-sharing intentions and were more likely to engage in social media use. Finally,

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organizational tenure was positively related to codification effort (B=0.011, p=0.034) and negatively related to knowledge-sharing intentions (B=-0.008, p=0.001), suggesting that higher organizational tenure increases codification efforts while also reducing sharing intentions. However, all hypothesized relationships remained unaffected when controlling for these variables, indicating that the control variables did not influence the hypothesized relationships; as such, these variables were excluded from the final model for reasons of parsimony.

4. Results

4.1 Measurement model

The measurement model indicated excellent model fit: χ^2 (278) = 641.78; CFI = 0.96; TLI = 0.95; SRMR = 0.05 and RMSEA = 0.042 (CI: 0.037; 0.046). Alternatively, we examined a measurement model specifying ESM use as unidimensional, including both contributing and donating behavior and a model treating ESM use as a second-order construct. Model comparisons indicated that the initial model with two factors for ESM use fitted significantly better than the unidimensional model (χ^2 (2) 238.81 p < 0.001) and the second-order model (χ^2 (6) 40.13 p < 0.001). In addition, the model parameters indicated that ESM use should be treated as two separate factors distinguishing contributing behaviors and collecting behaviors on ESM. Hence, in line with Kügler and Smolnik (2014) and van Zoonen *et al.* (2021), the two-factor model was retained, allowing the analysis to examine differences between contributing to and collecting from ESM. Consequently, we report two results – i.e. one for contributing and one for collecting behavior – for each hypothesis involving ESM use.

The model validity measures reported in Table 1 indicate good convergent and discriminant validity. The average variance extracted (AVE) is above 0.50, except for the fear of missing out (0.40). Note that we maintained the measure as Fornell and Larcker (1981) indicate that an AVE of 0.40 can still be considered to reflect adequate convergent validity when composite reliabilities are above 0.60, which is the case. In addition, reliability and discriminant validity (maximum shared variance is smaller than AVE, and the square root of AVE is greater than inter-construct correlations) do not indicate reliability and validity concerns for FoMO. Discriminant validity was examined through the maximum shared variance (MSV) among the constructs in our model. The MSV ranged from 0.08 to 0.48. In addition, the square root of the AVE was greater than the inter-construct correlations. These results indicate good discriminant validity. Finally, reliability was examined through the composite reliabilities (CR), ranging from 0.73 to 0.89. Finally, the maximum reliability (H) ranges between 0.75 and 0.93. Overall, the measurement model demonstrates adequate validity and reliability.

Common method bias using Harman's single factor test indicated that one factor explained a total variance of 21.17%. In addition, common latent factor analysis was added to capture the shared variance among observed variables. This test indicated that the squared unstandardized factor loading of the common latent factor is 0.008. Hence, the common shared variance is not a problem in the data underlying this study.

4.2 Structural model

The structural model indicates excellent model fit χ^2 (278) = 676.27; CFI = 0.96; TLI = 0.95; SRMR = 0.05 and RMSEA = 0.042 (CI: 0.037; 0.046). Table 2 reports the standardized and unstandardized parameter estimates, associated standard errors and confidence intervals of the direct and indirect effects in the model. H1 posits that employees who fear being held accountable for their online communication may engage in lower levels of platform use. The results indicate that the fear of being held accountable is not significantly directly related to

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				BC 95% CI			
		β	$SE \beta$	В	Lower	Upper	Þ
H1	Fear of accountability – Contributing to ESM	0.027	0.051	0.013	-0.035	0.063	0.595
	Fear of accountability – Collecting from ESM	-0.047	0.049	-0.023	-0.073	0.022	0.311
H2	Fear of losing uniqueness – Contributing to ESM	-0.020	0.052	-0.010	-0.063	0.040	0.662
	Fear of losing uniqueness – Collecting from ESM	-0.113	0.048	-0.056	-0.109	-0.010	0.019
НЗ	Fear of missing out - Contributing to ESM	0.046	0.057	0.021	-0.032	0.071	0.434
	Fear of missing out – Collecting from ESM	0.153	0.056	0.071	0.020	0.129	0.006
Indire	ect effects						
H4a	Fear of accountability – Codification effort – Contributing to ESM	-0.005	0.004	-0.007	-0.017	-0.001	0.029
	Fear of accountability – Codification effort – Collecting from ESM	-0.006	0.003	-0.008	-0.019	-0.001	0.026
H4b	Fear of accountability – Knowledge-sharing intentions – Contributing to ESM	0.004	0.010	0.002	-0.009	0.012	0.687
	Fear of accountability – Knowledge-sharing intentions – Collecting from ESM	0.004	0.009	0.003	-0.011	0.014	0.689
Н5а	Fear of losing uniqueness – Codification effort – Contributing to ESM	-0.009	0.004	-0.012	-0.024	-0.004	0.002
	Fear of losing uniqueness – Codification effort – Collecting from ESM	-0.010	0.004	-0.014	-0.029	-0.005	0.001
H5b	Fear of losing uniqueness – Knowledge- sharing intentions – Contributing to ESM	-0.040	0.013	-0.025	-0.044	-0.012	0.001
	Fear of losing uniqueness – Knowledge- sharing intentions – Collecting from ESM	-0.047	0.013	-0.029	-0.048	-0.016	0.001
NT.4.	(a). DC — Dies Competed CI — Confidence	T	SE O	41		C 1.	

Table 2.Direct and indirect parameter estimates using bootstrapping

Note(s): BC = Bias Corrected; CI = Confidence Interval; SE β = the standard error for standardized regression weight; B = unstandardized regression weight. Results are based on 5,000 bootstrap samples

contributing to ESM (B = 0.013 [-0.035; 0.063], p = 0.595) or collecting from ESM (B = -0.023 [-0.073; 0.022], p = 0.311). Hence, the findings do not support H1.

H2 assumes that the fear of losing uniqueness will present a barrier for employees to use ESM. The findings indicate that the fear of losing uniqueness is not significantly related to contributing to ESM (B = -0.010 [-0.063; 0.040], p = 0.662), while it is significantly negatively related to collecting from ESM (B = -0.056 [-0.109; -0.010], p = 0.019). These findings provide partial support for H2.

Finally, H3 assumes that employees engage in platform use because they fear missing out on important professional or social information. The results indicate that the FoMO is positively correlated with collecting from ESM (B = 0.071 [0.020; 0.129], p = 0.006), while it is not significantly related to contributing to ESM (B = 0.021 [-0.032; 0.071], p = 0.434). These results imply that employees are more likely to read up on others' social media activities and contributions when they fear missing out on information. In contrast, this fear does not increase any contributions to the ESM. Hence, H3 is partially supported.

Subsequently, we examined the indirect effects reflected in H4 and H5. First, H4a assumes that the fear of accountability is negatively related to platform use through increased codification effort. The results yield a significant negative indirect effect of the fear of accountability on contributing to ESM (B = -0.007 [-0.017; -0.001], p = 0.029) and collecting from ESM (B = -0.008 [-0.019; -0.001], p = 0.026) through codification effort.

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These results support the reasoning reflected in H4a. H4b similarly expects a negative indirect effect of fear of accountability on platform use, this time through reduced knowledge-sharing intentions. The findings do not support this expectation as the indirect effect on contributing to ESM (B = 0.002 [-0.009; 0.012], p = 0.687) and collecting to ESM (B = 0.003 [-0.011; 0.014], p = 0.689) are not significant.

H5a assumes that the fear of losing uniqueness is negatively related to platform use through codification effort. The results show a significant negative indirect effect on contributing to ESM (B = -0.012 [-0.024; -0.004], p = 0.002) as well as on collecting from ESM (B = -0.014 [-0.029; -0.005], p = 0.001). These results support the reasoning reflected in H5a. Conversely, H5b posits that the fear of losing uniqueness is negatively related to contributing and collecting behavior on ESM through knowledge-sharing intentions. The results demonstrate significant negative indirect effects on contributing (B = -0.025[-0.044: -0.012], b = 0.001) and collecting on ESM (B = -0.029[-0.048: -0.016], b = 0.001). These results support our reasoning that the fear of losing uniqueness increases codification effort and reduces knowledge-sharing intentions, which are adversely related to platform use. Hence, the negative indirect effect supports H5a and H5b. Finally, though not hypothesized, we examined the relationship between codification effort and sharing intentions. Both mediators were allowed to covary in the model; given the relationship between these mediators, it would be reasonable to suspect that codification effort could reduce knowledgesharing intentions. Indeed, codification effort is negatively associated with knowledgesharing intention (B = -0.115 [-0.160; -0.075], p = 0.001). This suggests that codification effort may unfavorably shift the anticipated effort-reward balance reducing individuals' sharing intentions.

5. Discussion

A vital aim of this study was to more holistically examine how fears deter and motivate ESM use. We proposed and tested a fear framework guided by emerging theorizing about communication visibility to obtain this aim. The results indicate that the fear of losing uniqueness is indirectly and negatively related to ESM use through increased codification effort and reduced knowledge-sharing intentions. Similarly, the fear of accountability is negatively associated with ESM use through increased codification effort, suggesting fear deters ESM use as it increases the effort needed to contribute. In contrast, the fear of missing out does not yield any indirect effects on ESM use but is directly and positively related to collecting behavior on ESM. This suggests that employees who fear missing out on important social or professional information are more inclined to track what their colleagues post on ESM.

5.1 Theoretical implications

This study extends theorizing on the principal role of fear as a powerful emotion that influences human perception, cognition and behavior (Kish-Gephart *et al.*, 2009; Lebel, 2016, 2017). Though often underappreciated in organizational contexts, fear has plagued and protected humans since the beginning of our existence (Kish-Gephart *et al.*, 2009). Cognizant of the nascent theory of communication visibility (Treem *et al.*, 2020), this study sought to explain better fear's role in relation to potentially visible communication through ESM use. The findings confirm that fear may result in employees' avoidance and approach strategies (Fang, 2017). Specifically, the findings demonstrate that specific fears may deter ESM use, while others may motivate it. This is an essential contribution as the benefits associated with ESM use are dependent on employees' willingness to engage with these systems. The fear framework explicitly considers barriers to technology adoption, especially in communication

environments that provide visibility. Our findings highlight that the first dimension of communication visibility, the ability to make one's communicative actions visible (Treem et al., 2020), may impose barriers in the form of fears (i.e. losing uniqueness and accountability) that may lead potential users to reject the use of technologies. On the contrary, the second dimension of communication visibility, observing others, may create motivational forces (FoMO) that are positively associated with ESM use. Future research may further investigate how the proposed fear framework could inform other perspectives of technology adoption in the age of visibility.

Furthermore, this study contributes to fear research in organizational settings by providing a more granular understanding of the implications of some of these fear factors by examining their relationship with contributing and collecting behaviors on ESM. Specifically, the results demonstrate that FoMO relates to collecting behavior on ESM, suggesting that individual workers may prefer to observe the visible communication of others without providing visible communication themselves. These findings inform recent calls for examining how different social media behaviors (e.g. posting vs lurking) are related to FoMO (Reer *et al.*, 2019). We confirm that FoMO is associated with higher levels of behavioral engagement with social media (Przybylski *et al.*, 2013), but only for collecting behavior (lurking) and not for active contributing behaviors. In line with previous research on the antecedents of lurking behaviors on social media, FoMO can be gratified by simply reading and staying aware of conversations; there is no need to post anything (Liu *et al.*, 2019). Interestingly, this may indicate that much of the use of ESM may be invisible to other users. In turn, the benefits of the technology might be overlooked or unknown to the organization.

Yet another contribution to the ongoing research of ESM usage and adoption is that this study indicates that fear may lead to low usage levels of ESM, especially for contributing behaviors compared to collecting behaviors. This is important because this could mean that these systems are more likely to suffer from under participation over time. Previously, reports about low adoption rates of ESM published by both practitioners and scholars (Chin *et al.*, 2015; Denyer *et al.*, 2011) suggested that passive rollout strategies (e.g. provide-and-pray approaches) often prove unsuccessful, leading to few contributions and low participation by organizational members. However, it is important to recognize how fear is associated with ESM use and call attention to how making communication visible through ESM use carries costs for contributors. Specifically, we demonstrate that while FoMO may motivate collective behaviors, the fear of losing uniqueness reduces it. And perhaps more importantly, both the fear of accountability and fear of losing uniqueness seem to (indirectly through codification effort and sharing intentions) prevent more active contributing behaviors on ESM.

Finally, the findings highlight the need to move beyond documenting communication visibility and call for more focus on visibility management (Flyverbom et al., 2016). This shift is important because, as our findings demonstrate, individuals vary in the extent to which they perceive the use of ESM as complex. The strong effect of codification effort indicates that individuals consider the work involved in managing digital communication. This is also in line with research on how individuals present themselves on public social media, which has found that individuals are fearful of their ability to manage content and may therefore forgo any participation in digital platforms (Berkelaar, 2014). Additionally, empirical work on ESM use indicates that workers who lack confidence in their ability to present themselves effectively may avoid participation altogether (Treem, 2015). Non-use of technology (i.e. avoidance) may be a simple, straightforward strategy for those who may be anxious about their abilities to perform or manage digital communication effectively. Overall, these findings support a framework that views the use of ESM for visible communication through a performative lens. Future work should consider other factors beyond those examined here that might relate to both workers' willingness to engage in visible communication with technology and their perceived self-efficacy in providing communicative performances.

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These results indicate that though organizational leaders and managers may see the potential visibility afforded by ESM as empowering, individuals may view the same communicative context as threatening. Given the decentralized and bottom-up design of ESM, fear and apprehension have the potential to hamper ESM implementation efforts severely. Organizations would be well served to recognize the potential fear associated with ESM use and develop messages and communication efforts to ease employees' anxieties. Moreover, assessing early on which employees are not worried about making communication visible, perceive low codification effort, or have high knowledge-sharing intentions might be a way to identify individuals who might evangelize the benefits of the technology to others. The results of this work indicate the need for organizations to recognize the potential consequences associated with the implementation of a technology that increases the visibility of workers' communication.

The findings related to the role of FoMO indicate a possible opportunity for organizations to motivate collecting behavior on ESM by highlighting activities on the platform that employees may be missing. Organizations should consider seeding ESM platforms with communication or information they know will be attractive and engaging to individuals. Additionally, organizations may want to communicate, and make visible, any growth in activity on the platform – whether it is related to contributing or collecting information. Finally, organizations should tailor messages regarding the value of communication to different workers based on what might be the most relevant to those individuals.

5.3 Limitations and future directions

Like any study that draws on a sample in a single organization and analyzes the use of a single technology, the generalizability of these results may be limited. It will be important to validate and replicate these relationships in varied organizational contexts and with the use of other social media technologies. However, this study establishes the value and importance of looking at fear, in its different factors and as related to technology use, by studying it through an integrated fear framework. Additionally, though the study looks at various aspects of ESM use, it relies on cross-sectional self-report data. Future studies should incorporate behavioral trace data to gain a more precise picture of technology use, and longitudinal designs may provide more substantial evidence for the proposed causality of relationships.

Moreover, specifically in the context of the fear mechanisms, minoritized and marginalized groups in organizations may experience greater barriers to communicating publicly on ESM. For instance, Neubaum and Krämer (2018) noted that expected sanctions influence people's willingness to express minority opinions across social situations. Arguably, minoritized and marginalized (e.g. based on attributes, background, role, or positionality) might be more prone to hold back opinions and knowledge as fear regarding their contributions may be more salient.

Moreover, much research on ESM has focused on affordances (Gibbs et al., 2013). Beyond visibility, other affordances, such as association, editability and persistence, have been identified (Treem and Leonardi, 2013). Future research could examine the interplay between other affordances and fear factors. For instance, while persistence, like visibility, may contribute to fear of losing uniqueness and fear of accountability, editability may provide behavioral options that reduce these fears as messages can be carefully crafted and edited even after their original display. Like exploring the impact of various affordances more directly, future research could also diversify the focus on fear factors, including other-referenced fears (Fang, 2017) – e.g. fear of exploitation or fear of contamination – in the context of ESM use. Additionally, though the respondents were all active on ESM, the survey responses indicated that most workers in this organization exhibited low individual and

overall use of the platform. It is important to examine whether the relationship between fear factors and ESM use found in this organization is also present in an environment characterized by more intensive ESM activity.

Finally, though we included codification effort and knowledge-sharing intentions as potential individual-level factors in our analysis, it will be important to test the ways group or organizational influences may interact with these different factors of fear to predict technology use. For instance, perceptions about others' usage and expectations about use may be particularly important in the context of perceived fear. Moreover, considering how these fear factors relate to individual and communal costs and benefits associated with public goods approaches and social dilemmas to knowledge sharing in organizations (Razmerita et al., 2016) could extend the fear framework and its role in ESM use. In addition, future research may consider how our framework relates to these and other approaches, such as technology acceptance theories (e.g. Davis et al., 1989).

6. Conclusion

This work extends previous scholarship that characterizes the tensions, paradoxes and complexity that employees encounter when navigating the potential visibility associated with ESM use. The analysis recognizes that fear can play a crucial role in motivating or deterring workers' specific choices in navigating the challenges that occur when technology can make communication broadly visible. What emerges in examining the consequences of the greater communication visibility afforded by these technologies is a clear contrast between the promise of greater knowledge sharing for the organization and the apprehension of individuals regarding how to retain control of how they communicate and how that communication is made available to, and perceived by, others. As technologies allow workers to become more empowered and even expected to participate in visible organizational communication efforts, we need to direct more analytical focus on the ways individuals manage communication visibility in organizing contexts.

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