

Title: A research literature study on the Enterprise Social Media Platforms in organizations.

Author information: Halvdan Haugbakken is Postdoctoral Fellow at the Department of Sociology and Political Science, the Norwegian University of Science and Technology. Currently, Haugbakken is Project Manager for NTNU's MOOC initiative. Haugbakken develops online courses in social scientific methodologies, digital competence and researches MOOCs, social media, and use of new digital technologies in organizational life.

Summary: Media scholars have examined the effects of social media on society at large. The complex ways the same technology is adopted and implemented into organizational life is rather unclear. This aspect relates to a lack of research interest for new digital technologies among organizational researchers. This factor creates a significant research knowledge gap. Therefore, this article provides a comprehensive literature research study on how Enterprise Social Media Platforms are used in organizations, covering research published in the period from 2007 to 2016. Based on a relatively large data sample, the paper identifies seven large research streams on how organizational researchers have studied Enterprise Social Media Platforms. The paper also suggests areas for future research.

Keywords: Enterprise Social Media Platforms, organizations, research review, intern use

Introduction

Organizational and management research is argued not to stay accord with how new technologies influence the organizing of work, a matter pointed by acknowledged researchers (Leonardi and Barley 2010; Orlikowski and Scott 2008). In fact, the research field lags behind and the top organization and management journals devote little attention to the matter, especially how new digital technologies and the forces of digitalization make impact in a variety of organizations. Indeed, this is a contradiction. In the early days of organization and management studies, processes of adoption and implementation of new technologies dominated the research agenda. Now, scholars publish works in other research fields and journals, and, strangely, are not at the forefront of addressing the impact of disruptive technologies (Christensen 1997). Instead, a small group of organizational researchers and economists write extensively on how innovative technologies – like Big Data, Artificial Intelligence, robotics, The Internet of Things – represent a new computerized and industrial era, called the *Fourth Industrial Revolution* (Brynjolfsson and McAfee 2012; 2014). A central theme in these writings is the emergence of a new organizing construct, *the platform* (Krokan 2018; McAfee and Brynjolfsson 2017).

Since the late 2000s, different concepts are used to describe the meaning of the platform. These include *Web 2.0* (O'Reilly 2005), *Enterprise 2.0* (McAfee 2009), and *social media* (Kaplan and Haenlein 2010), indicating Internet technologies that challenge managers, employees and organizations to share, interact and collaborate on a new infrastructures for social interaction. Such include collaborative tool as blogs, wiki and social network sites, which can be used to improve work processes and internal communications, thereby reducing organizational boundaries. Afterwards, they have been put under one umbrella term, Enterprise Social Media. This is defined as: “web-based platforms that allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited, and sorted by anyone else in the organization at any time of their choosing” (Leonardi et al. 2013:2). This is a modified version of Kaplan and Haenlein’s definition, who define social media as a “group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (2010:61).

However, lacking from current and above concepts is to understand Enterprise Social Media as a platform, meaning that it can make more sense to address the technology as *Enterprise Social Media Platforms* (ESMPs). In contrast, little is known to organizational researchers with interest for new technologies and the organizing of work, about how the digital technology is used *internally* in organizations. Therefore, this legitimizes the need for devolving a clearer and overall reserach agenda on what is current research horizon on the use and impact of ESMPs in organizations. This is also the main objective of this paper. The paper offers a comprehensive research literature study on how researchers have studied the use of ESMPs in organizations, covering research published in a sample of journals and conference papers between the period from 2007 to 2016. The research literature study identifies seven large research streams and gives suggestions to further research. To show this, a look at the paper’s content and structure pertains. First, methods and research strategies used to perform the research literature study is outlined. Thereafter, the reserach results are presented, meaning accounting for the seven reserach streams. Finally, the paper summarizes current reserach horizon and provides recommendations for future reserach on ESMPs.

Methodology

Literature studies of current research horizon can be performed in different ways, either by use of large systemic quantitative inquires of themes or by interpretive approaches. This literature study is inspired by the latter. To show transparency of the literature study, I present the scope, criteria, and evaluations used in the literature search process. The literature study is inspired by an open-ended approach, but to give the search process a systematic direction, certain criteria were used as guide. This was done to narrow down the scope and exclude non-relevant research.

Table 1. Results of research literature search.

Database / Journal	Search criteria	Search string	Search period	Total items	Relevant items	Tentative sample	Final items
Scopus	Article and conference papers	"social media" AND workplace		132	56		
		"Web 2.0" AND workplace		92	32		
		"social network site" AND workplace		8	4		
		"social media" AND enterprise		538	141		
		"Web 2.0" AND enterprise		578	57		
		"social networking site" AND enterprise		88	36		
		"social media" AND corporation		149	25		
		"Web 2.0" AND corporation		37	6		
		"social network site" AND corporation		15	5		
				February March 2017			
Journal of Social Media for Organizations				7	3		
Academy of Management Journal				2	2		
Academy of Management Review	Research articles	"«social media»"		1	1		
Administrative Science Quarterly				0	0		
Organization Science				1	1		
Management Information Systems Quarterly				16	1		
Sum				1664	370	142	104

First, the main focus is on *empirical research results* on how ESMPs are *used internally in organizations*. This criterion meant to exclude a range of research. For example, research focusing on external communications was excluded. Studies reporting how companies communicate with clients on Facebook is a case in point. Also, a variety of research publications were omitted, like editorials, book reviews, and book chapters. To be included in the final data sample, a research paper needed to have used social scientific methods and be published in scientific journals and conference proceedings. This approach gave access to the newest research.

Second, to operationalize "Enterprise Social Media Platforms" certain search words were developed. These were used to specify the type of organizations and technologies one should search for. The search words included: 'social media', 'Web 2.0', 'social network(ing) sites', 'corporation', 'enterprise' and 'workplace'. The search words became search strings. Research databases and relevant journal were also selected. These included the research database *Scopus* and the journals, *the Journal of Social Media for Organizations*, *Management Information Systems Quarterly*, *Organization Science*, *Administrative Science Quarterly*, *Academy of Management Review*, and the *Academy of Management Journal*. These were selected because relevance and high-quality research. A time scope describing the period for when the research was published was also defined. Research published between 2007 and 2016 was only considered. Research published before or later was excluded from the literature study.

Third, a systematic literature search was performed in research databases. The search period lasted from February to March 2017. The items from the search are listed in Table 1. The search went through different steps and involved a self-developed screening procedure, starting with search strings. It consisted of starting with collecting a large sample of papers that would be downsized to a final data sample by critical evaluation. In brief, it would consist of four steps. In the first step, I started the search with search strings to obtain *an overall data sample of research papers*. In the second step, I read through the *abstracts* of all the selected papers. Based on their relevance, I decided on whether to include or exclude them from further analysis. In the third step, I read all the *relevant research papers* I choose from the previous step. This consisted of identifying all the papers and to extract duplicated articles and conference papers and make an additional choice to include or exclude research from the tentative final sample. In the final step, I re-read and wrote a short summary of each paper to be included in the final text and decided on whether to include it in the final data sample of 104 research papers.

Fourth, the search process included the development of a data analysis to summarize a current research horizon, an analytical strategy inspired by the research guidelines as outlined by Creswell (1994). In short, they state that the goal is to establish knowledge gaps on the current research horizon, point out important research themes, and provide suggestions to future research. The main findings from the literature study is the proposition of seven overall research streams in organizational studies of ESMPs. These are listed in Table 2. The research streams are the results of an open-ended coding and interpretation processes. The coding process consisted of looking for overall topics that would emerge into larger categories, which would become the research streams. The research topics were not pre-determined before the data analysis started but developed as the data analysis progressed. A significant factor for developing each research streams consisted of looking for repeated and similar overall key words, how the papers positioned themselves, and research focus.

Research results

Table 2. Final data sample.

Research stream	Final sample
Research stream 1: IT Companies and Proprietary ESMPs	36
Research stream 2: ESMP Skepticism and Challenges	7
Research stream 3: Theoretically Framed Studies of ESMPs	23
Research stream 4: Rudimentary Studies of ESMPs	20
Research stream 5: ESMP Policies and Frameworks	4
Research stream 6: ESMPs and Knowledge Management Systems	5
Research stream 7: Perception, Values and Benefits of ESMPs	9
Sum	104

In this part of the literature study, the final research results and data analysis are presented. The section presents the study's seven research streams. These include "IT Companies and Proprietary ESMPs", "ESMP Skepticism and Challenges", "Theoretically Framed Studies of ESMPs", "Rudimentary Studies of ESMPs", "ESMP Policies and Frameworks", "ESMPs and Knowledge Management Systems" and "Perception, Values and Benefits of ESMPs". All the seven research streams are listed in Table 2.

Research Stream 1: IT Companies and Proprietary ESMPs

Many papers explore the ways employees use ESMPs in *large IT companies*, like IBM and HP, IT companies possessing resources to develop proprietary ESMPs and the means to research them. This research stream is called “IT companies and proprietary ESMPs” because of this aspect. 36 journal articles and conference papers are placed in this research stream, and they explored internal ESMP use at an early stage, starting already in 2007. Also, they give a more holistic picture on the ways that ESMPs were adopted in enterprise settings.

16 papers explore IBM’s ESMP alone, Beehive, which systematically investigate the adoption of a platform in a company setting. Papers focus on exploring the effects of a single ESMP feature or addressing larger management questions. A theme in many papers are the attempts to establish a picture that online engagement can work positively for organizational life. For example, papers document that use of an ESMP can lead to increased organizational sociability. IBM employees expand their informal and formal social networks by interacting with known colleagues and use Beehive to get to know new ones, findings corroborated in longitudinal studies and by use of various research designs. In other words, employees bond and bridge social capital. Studies focus on what characterizes ESMP participation, meaning closer examination of the dynamics between ESMP, social capital, and the role of technology. Steinfield et al. (2009) studied Beehive by use of a social capital perspective. They found that the use of Beehive contributed to increase different forms of social capital, as employees maintain relationships with strong ties and expand social networks. Even “light ESMP use” claims to make employees more connected, meaning that such user patterns can reduce organizational barriers. However, we observe findings contradicting the mentioned studies. Researchers examined the ways IBM’s global workforce performed connecting strategies across the world regions where the company operates. Thom-Santelli et al. (2010) found that employees tended to connect with colleagues from the same business region.

Several Beehive papers attempt to explore the social dynamics of various communication and connecting strategies when employees engage on ESMPs, leading to detailed insights. Researchers attempted to understand the relationships between strong and weak ties in professional social networks in organizational life and the relationships to various forms of engagements. For example, Wu et al. (2010) tried to predict which interaction patterns are likely to signal different forms of closeness between colleagues. IBM employees can feel *personal closeness* towards colleagues, but not a *professional* closeness. DiMicco et al. (2008) did a case study exploring *motivations* for how employees used Beehive to bond with coworkers. They found that users perform complex interaction strategies, like using the platform to learn and construct impressions of colleagues and connect on a personal level. Employees seldom reconnect with close coworkers but use Beehive to find new weak ties to extend their professional networks. In a similar study, DiMicco et al. (2009) show how Beehive’s users use the platform to *sense-making of people* and *building of relationships*. This is illustrated through that internal use of Beehive is different from external use, which is reflected in perceptions of privacy and transparency. Beehive users share more personal information about themselves than one usually does on social media. DiMicco et al. conclude that Beehive users are aware of tailoring a professional image of themselves fitted to an enterprise audience. Beehive is used for career advancement and to convince coworkers to support business ideas. We also find papers explaining how Beehive is used for *organizational acculturation*, a social learning approach where employees learn about the company’s corporate culture. Thom-Santelli et al. (2011) reported that new employees and those working geographically distant from headquarters, used Beehive to learn about IBM’s corporate values and belief and saw this use as beneficial.

A characteristic about the Beehive project, is how papers explore different *ESMP features* designed to create engagement in online communities. For example, several studies report how engineers design and test out features on the Beehive community, which are examined by researchers. Here, it is challenging to conclude whether ESMP features lead to that employee bond across organizational barriers. Addressing particular studies, Farzan et al. (2008) built a *reward feature*. It was based on giving points to users who contributed with content to the platform. The findings showed that users were motivated, but the reward feature proved challenging in sustaining users to contribute over a long period. Farzan et al. (2009) implemented a *rating system* to encourage users to promote a “diverse set of content”. The analysis established that seeding diverse content contributed to forming new social interactions between users. Daly et al. (2010) made a *recommender system* suggesting connections to users, but the findings showed variation in adoption. Dugan et al. (2008) developed a user profile feature called “About You”. The feature allowed users to describe themselves in rich ways. After 10 months of use, thousands of users created diverse questions and reused existing questions from other users in their profiles. Findings suggested that those with highly diverse user profiles had a higher number of online connections. Freyne et al. (2010) measured the outcome of a *news feed* feature, which aimed to locate interesting news to be displayed for users. They concluded that combining short-term interest models exploiting previous viewing behavior of users, and long-term models exploiting previous viewing of network actions, was the best predictor of feed item relevance. Geyer et al. (2008) created a *social list feature* and found that users shared online lists more than other types of content like photos. The list feature was a medium used for self-representation. Studies have explored *recommendation features*, algorithms that help users in finding new online and offline connections. Chen et al. (2009) evaluated four recommender algorithms and conclude that these can extend the number of friends of a user on Beehive.

The Beehive project researched *bookmarking* and *tagging systems*, examples of ESMPs features. Thom-Santelli et al. (2008) studied user motivation and what role performance emerges from the use of tagging systems. Employees deliberately take on different roles, resulting in the creation of different user groups. Users are aware of how and why they tag, knowing that a larger audience monitors tagging practices. Thom-Santelli et al. identified five different user types; community-seeker, community-builder, evangelist, publisher, and team-leader. The differences between the user types correlated to what extent they sought to find new ties or whether to tag to promote their own work. Thom-Santelli et al. showed that tagging is rarely motivated by communication with a large audience but limits to a set of small user groups within a community. Farrell et al. (2007) completed a series of interviews with users concerning a feature that enables users to tag other users with key words. The study documented that the tagging system enabled users to maintain each other’s’ interests and expertise profiles, meaning that users tagged colleagues as a contact management practice. Muller (2007b) argued in a study that similar tagging patterns carried out by users could represent evidence of online communities. Muller (2007a) explored four different tagging systems and found that users tend to tag differently and customize their uses to the particular system they used. Pan and Millen (2008) analyzed the use of a bookmarking service and explored patterns of information sharing and social interaction among three groups. They established that there are more similarities than differences across the groups, suggesting that bookmarking practices are linked to the group they are a part of and are seldom aimed at a larger audience.

Later, IBM developed other ESMPs. Such platforms included IBM Connections (Muller et al. 2012), #selfiestation (Dugan et al. 2015), Enterprise Social Pulse (Shami et al. 2014), Know Me (Gou et al. 2014), Lotus Connections and Lotus System, providing the opportunity to make advanced analysis of the dynamics of ESMPs and how employee make use of features after

years of adoption. For example, papers explore how users search, filter and interact with *activity streams*. Guy et al. (2013) demonstrated activity streams can pose a new way of searching for information, as it is used to filter than search for information. The feature is used for a variety of purposes, like getting a sense of what colleagues do, to track recent project activities of individuals or groups, search for recent news, and latest updates in discussion, etc. Also, studies explore the challenges with activity streams. This connects to how to personalize activity streams as sharing can cause information overload. Guy et al. (2011a) conducted a study to address this topic. They researched how users can personalize activity streams based on three dimensions: people, terms, and places. The results suggested that building a profile based on user's stream data can give higher accuracy and value in use of activity streams (see: Guy et al. 2015). Researchers explore *recommendation systems*, features that suggest people in whom a user can connect with. Guy et al. (2011b) completed a study which indicates that employees will connect with "interesting strangers". Besides for such studies, researchers examined various online role-performances and connecting strategies employees make use of. For example, a paper addresses how a group of IBM bloggers uses a variety of strategies to be socially engaged, which consist of constructing a social identity by use of various styling techniques (Kremer-Davidson et al. 2016). We also find studies that address the role and personally traits of so-called *lurkers* (Muller 2012; Muller et al. 2010).

There is a set of studies investigating ESMP use in other IT companies and organizations (e.g. De Choudhury and Counts 2013). For example, HP developed a platform called *WaterCooler*, which started with aggregating RSS feeds from various ESMPs used across the company. Studies of *WaterCooler* shows that it is used to find people with expertise or interests for technologies and to learn about the organization (Brzozowski 2009). The findings indicate that employees having large networks are often approached by coworkers, which means that the platform is used to expand one's network beyond the business group where one works. Brzozowski also explored what role later participation and use of an ESMPs had on online contribution, a trait one found to be highly correlated. Brzozowski et al. (2009) conclude that to achieve success and make an ESMP sustainable, managers need to go ahead and be active contributors. In later studies, analysis showed that the number of uses increase, but is low compared to the overall numbers of staff employed in HP (Graupner et al. 2012). Now, employees use *WaterCooler* for simple communication and it fills a communication gap like chatter and tweets on social media. The research organization MITRE developed an ESMP, *Handshake*, which yielded the same results as the previous studies (Damianos et al. 2011; Holtzblatt and Damianos 2011). For example, a longitudinal study found that *Handshake* can support cross-organizational team-based collaboration, enable collective intelligence, strengthen social connections, facilitate knowledge management, foster situation awareness, and enhance business value, benefits coming from engagement (Holtzblatt et al. 2013).

Research Stream 2: ESMP Skepticism and Challenges

Although positive experiences with ESMPs in particular organizations, researchers also point out the challenges with adopting and implementing the same technology in organizations. Researchers use different terminologies to describe this phenomena, like "social networking effectiveness" (Figueiredo et al. 2009), "social media discomfort" (Forsgren and Byström 2011) or "IT-culture conflict" (Koch et al. 2013). Therefore, this research stream is called "ESMP skepticism and challenges" and counts 7 journal and research papers.

ESMP skepticism in organization is approached differently by organizational researchers. For example, Krischkowsky et al. (2014) performed a two-year study on the implementation of an

ESMP in a corporation with 26.000 employees. The study showed that few employees had not integrated it into their work practices. The major theme running through the research is the miss-match between the platform's embedded features seldom meets the needs of a user group and vice-versa. They show that the ESMP does not adequately support the employees' perception of collaboration, the user interface and functionalities are too complicated to understand and use, and that employees fail to use the platform and make good use of it, leading to the conclusion that new groupware does not simplify work processes as intended. Figueiredo et al. (2009) find other barriers, like that companies tend to supply too many ESMPs, leading to that employees are not familiar with the tools available and even what they are for. Onyechi and Abeysinghe (2009) conducted a survey among employees in two large companies where they addressed the ways organization evaluate the adoption of an ESMP. The analysis showed challenges, like that protecting and securing internal business information supersedes adoption of ESMPs. Moreover, the research indicated that senior management is less prone in accepting the technology. Hence, to have successful adoption, there is a need to involve management as well as policy-makers in implementation processes. Meske and Stieglitz (2013) did a study on employees who are set to manage the technology and improve the flows of internal communication, Enterprise Social Media Managers. This group faces considerable challenges, as they are set to have a range of various responsibilities while at the same time lacking the capabilities to make decisions that become real actions.

Studies also explore challenges with adoption and the larger rationale behind employees' rejection of new technologies. Such papers are helpful at giving focus on the ways ESMPs challenge an organization's established hierarchical structures and individual work practices. Forsgren and Byström (2011) conducted a study among engineers in a product development company and attempted to establish hesitant attitudes and feelings towards ESMPs. The informants expressed skepticism and distrust. Forsgren and Byström create a new term, "Social Media Discomfort", to express technology skepticism, which they argue should be split into two factors, social interaction (socialness) and goal-orientation in attending to work duties (usefulness). Koch et al. (2013) completed a study that focused on the potential *IT culture conflicts* that might arise with the implementation of ESMPs. This study reminds us that norms and values are embedded in technology and challenge established norms and values embedded in existing technology or work practices. Especially, they demonstrate the conflict between how young employees associate ESMPs with fun, collaboration, and sharing, while the baby boomer generation relate security and work ethics. Figueroa and Cranefield (2012) use Orlikowski and Gash's (1994) "technological frames" to show that the unsuccessful implementation of an ESMP suggests to create a new order among different employee groups, leading to the discouraging of creating and sharing knowledge.

Research Stream 3: Theoretically Framed Studies of ESMPs

Organization researchers use various theoretical lenses to analyze the impact of ESMPs on organizations. This matter reflects in the large number of papers having a theoretical scope, as they use various social scientific theories and concepts. Therefore, this research stream is called "theoretically framed studies of ESMPs" and contains 23 papers.

A set of papers pay great interest to develop the affordance concept. The research lens takes a perception approach and emphasizes the action potential and capabilities of a technology and how it can be beneficial to perform activities (Gibson 1986). The rationale for using high theory relates to that current definitions of ESMPs are too application focused and overlook the dynamics and reciprocal relationships between the material and the immaterial (Leonardi et al.

2013). Also, current research focuses on a particular platform or embedded features, leading to an assumption that researchers are inept to make inferences about the consequences of ESMPs on organizational processes like, knowledge sharing and socialization. Researchers do not possess a terminology to explain the ways ESMPs can influence social behavior and to generalize important matters to organization across contexts (Treem and Leonardi 2012).

A point illustrating theorizing are how papers suggest new affordance *terms* ESMPs can provide. One of the earliest cases to outline it was a research review on use of ESMPs in organizations, which argued that the technology enabled four affordances, *visibility*, *edibility*, *persistence*, and *association* (Treem and Leonardi 2012). A case showing what a affordance can mean is *visibility*. Treem and Leonardi (2012) claim that when employees use an ESMP this can afford the option to make their behavior and communication visible to others. When a user posts updates or shows a list of friends, these features visualize knowledge work. Leonardi (2014; 2015) illustrates this point by posing a theory of communication connected to how employees use an ESMP in knowledge work in a large organization. Based on a study of a financial service in the U.S., Leonardi illustrates that use of a company's ESMP assists third-users to enhance awareness of meta knowledge and learn about the competences of co-workers and what they are working on. Leonardi argues that the ESMP can be used to make accurate interferences of people's meta knowledge at work. For example, if you see the communication activities on chat software, such can give innovative products and avoid duplicating of work. Leonardi and Meyer (2015) develop the abovementioned claim in a study of a communications business unit in large telecommunication unit in Peru. They test out a set of hypothesis and instances of knowledge transfer, showing that when knowledge workers are exposed to communication activities on ESMP, this can act as a lubricant of internal communications.

Leonardi is a productive ESMP researcher and his contributions inspire others to theorize affordance in new directions. This suggests being explored in at least two ways. On the one hand, we find papers that theorize affordance more on *a conceptual level*, while on the other hand, it is developed *empirically*. Considering an illustration of a conceptual paper, Majchrzak et al. (2013) show how an ESMP can have four affordances to spark engagement of knowledge conversations in organizations. These include *metavoicing*, *triggered attending*, *network-informed associating* and *generative role-taking*. Metavoicing, for example, would mean that a ESMP has the action capability to enable users react to the other's online presence. Ellison et al. (2015) introduce the concept of *collective affordance* and *affordances for organizing* and explore them in light of that organizations become distributed entities. This broadens the affordance lens beyond the context of individual use, which is the normal analytical perspective in many analyses. Ellison et al. point out that the affordances of ESMPs should include other concepts like social capital dynamics, identity formation, context collapse and networked organizational structures. Other scholars develop conceptual papers, like Fulk and Yuan (2013) who view it in light of *communicative actions* that people use in knowledge sharing. They argue that by combining transitive memory theory, public good theory and social capital theory, this can be a theory-driven use of affordance to understand how one can reduce three common challenges in sharing of organizational knowledge. These include to know the expertise location, motivation to share knowledge and to develop and maintain relationships with knowledge providers. Considering papers that use the affordance perspective on cases from organizational life, Vaast and Kaganer (2013) explore how *organizations* react to ESMPs by a content analysis of policy documents. Based on a sample of 74 corporate policy documents, they find that organizations view ESMPs more as a risk than an advantage. Oostervink et al. (2016) did a study that reminds researchers to consider how affordance are *enacted* and that the institutional forces in organization will reshape how ESMPs are used by employees. They point out that the institutional

logics of a corporation and employee' professional expertise shape the knowledge that people share on ESMPs. Although the affordances of *visibility* and *associability* are assumed to enhance knowledge sharing in organizations, Gibbs et al. (2013) did a study among a group of engineers, showing that engaging on an ESMP create unexpected contradictions in user behaviors. For example, although EMPSS open for communication, users also see the need to hide and shield themselves for what they are working on. This gives Gibbs et. al to establish three different affordances that users navigate between: *visibility-invisibility tension*, *engagement-disengagement tension*, and *sharing-control tension*.

Researchers use the *boundary spanning framework* from the IT research literature to understand the dynamics and communicative strategies individuals use in social networks to coordinate and manage offline and online social relations. It uses theoretical concepts from social network and practice theory to understand the establishing and managing of communication strategies linking external sources of information and capture what role critical resources, coordination and the creation of reputational benefits play in such processes. For example, Van Osch and Steinfield (2013; 2016) conducted a study to explore what types of boundary spanning activities are enacted on ESMPs and how such activities are perceived by external stakeholders. They wanted to understand what role the technology played for an organization's virtual teams. Based on data collected from a provider of workplace solutions, the analysis showed that organizational groups and units use ESMPs merely for representational purposes towards external stakeholders and seldom enact coordination and informational activities. In a conceptual paper, Van Osch et al. (2016) extend the boundary spanning perspective by proposing new dimensions of boundary spanning success in virtual teams. They argue that the current literature focuses on the organizational performance of a team than taking in hand the actual activities that constitute boundary spanning. Thus, they pose three new criteria to measure success by analyzing the effectiveness and efficiency of particular interactions. Ollier-Malaterre et al. (2013) theorize the meaning of boundaries in how social interaction on ESMPs can impact professional identities. As employees are forced to interact on ESMPs, management of online identities are crucial. They build a framework and theorize about how work-nonwork boundary preferences and self-evaluation motives drive the adoption of four archetypical sets of online boundary management behaviors, which they call open, audience, content, and hybrid.

Researchers also use established concepts to understand the variety of dynamics of connecting strategies employee use on ESMPs, like *social capital theories*. Riemer et al. (2015a) studied how employees gain social capital from *online participation* in an international consultant company. They found that users are able to gain social capital from online participation and use different types of bonding strategies and seldom bridge social capital. Employees can benefit from repeated interactions with other users and participation in cohesive work groups, but they are unable to derive competitive information advantages from weak tie ego networks or broker positions. Gao et al. (2013) used social capital theory to investigate how social network information and cultural aspect influence and *choice of collaborators* among American and Chinese employees in a global IT company. The study showed that collaborator seekers from the U.S. based their decision largely on the type of connections (e.g. experts vs. people in important positions) in the candidate's social network, whereas collaborators from China tended to consider the existence of shared contacts and type of connections in potential collaborators' networks together when making a decision. Pahlke (2012) analyzed a large sample of ESMP messages collected in a leading multi-national service provider to test out if participation on an ESMP brings benefits in knowledge exchange processes. Pahlke explores what role various social capital forms, structural, relational and cognitive, can play in knowledge reception in so-called electronic network of practice. The study finds that members who have are central and

interact with a large number of connections in online social networks are more likely to receive more helpful information and faster response. Cao et al. (2016) did a study among Chinese working professional which questioned if use of ESMPs could enhance the work performances of employees when related to network ties, shared vision and trust. The study argues that use of ESMP in the workplace can support knowledge transfer beyond organizational boundaries.

A body of papers uses other theoretical concepts to understand the impact of ESMPs on organizations. For example, Dyrby et al. (2014) use Latour's (2005) *cartography of controversies* to understand what characterizes the social fabric of life of interaction between employees working in a Danish IT consultancy company, and the role Yammer can have on initiating collaboration. They identify a set of interactions between users that show norms and values for proper communicative practices and collaborate initiatives. Pettersen (2016) uses Giddens' (1984) *structuration theory* to study what role geographical workplace plays in a study in the implementation of an ESMP in an international company. Pettersen's work points out that *shared places* or the workplace setting and work routines and offline social networks emerging from organizational context also have decisive role in how employees use and interact on the ESMP. Jarrahi and Sawyer (2015) also use same the framework. They focus on the knowledge practices of consultants, the use of a variety of different ESMPs, and the potential ways organizational norms and policies influence these practices. In an impressive study, Treem et al. (2015) used *technological frames* (Orlikowski and Gash 1994) to make a similar argument as Pettersen. They explored the experiences of implementing an ESMP in a large American financial service company. The study focused on how employees develop an interpretation of ICTs they first experience outside the workplace, and how these interpretations can influence the willingness to adopt and engage on ESMPs. Also, they establish that employees have a similar public perception of ESMP, but this changes with contexts, age and user experiences. Surprisingly, they find that younger employees and users with long user experiences of social media outside the workplace, were largely unwilling to engage on the ESMP. In contrast, older employees and users with little social media user experience, saw benefits in using the ESMPs.

Research stream 4: Rudimentary Studies of ESMPs

Several studies argue to be the "first in class", as they state that they chart basic user patterns and initial use of ESMPs. For example, they contend that the research questions and topics have never been explored by the research community. For such reasons, this research stream is called "rudimentary studies" and makes up 20 papers.

Researchers use social capital perspectives to explain early use of ESMPs. Cummings and Dennis (2014) used an experimental design and explored the meaning of impression formation in virtual teams. Undergraduate business students from a state university were picked to respond to a scenario commonly seen in on ESMPs; what role does available information of users influence the creation of virtual teams. One investigated how *user profiles* can motivate other users to have trust and connect with other users they interact with on an ESMP. The research showed that how well outlined a user profile is, determines how users value and wish to bond or bridge social capital. Kim and Kane (2015) asked what conditions can reduce organizational boundaries among employees. Based on data collected over a two-years period, they analyzed the tie information from 1.386 users in a research organization, and they found that employees connect in the similar way as they do in the offline world. This means that organizational homophily is a strong driver in the formation of ties. Mark et al. (2014) explored how an employee's online network interaction are valued by colleagues. For example, do your liking, commenting practice, and number of followers, make you valued? They find the opposite; the

smaller size of one's online network and visibility, the higher an employee is valued by colleagues. In this regard, Chelms and Prasanna (2012; 2013) performed a study aimed at giving a structural typology of ESMP social network, which was based on extracted direct messages sent between users. They establish that such online networks are much smaller than similar networks on ESMPs and have a large and strong connected core of high degree nodes.

In this research stream, studies attempt ascertaining how receptive organizations are to ESMPs and to what extent they make *work processes more transparent in organizations*. Saldanha and Krishnan (2012) explored factors determining how U.S. enterprises adopt Web 2.0 technologies. They found that open standards are positively associated with adoption and large knowledge-based organizations are open to implement the technology. Tierney and Drury (2013) researched if an ESMP can change internal processes for sharing and collaboration to enhance innovation processes within enterprises. They followed the outcome of redesigning of a research proposal process that included the use of an ESMP. Before introduction, the research proposal process was time-consuming and highly competitive, but integrating the ESMP gave benefits like cutting costs across business units, facilitate transparency, and active participation. Other papers follow a similar path but focuses on exploring other challenges. For example, new business software intended to standardize works process, can in fact force users to find workarounds to suspend structural constraints instituted by an ESMP. Therefore, researchers have little knowledge on how interactions on ESMPs can shape the interactions of co-users. Subramaniam et al. (2013) explore this theme by introducing the term "virtual co-presence" to grasp the dynamics of collective task completion in a dispersed work context. Based on data collected in a large company, they argue that virtual co-presence happens in three contexts; (1) when users share knowledge with another to solve immediate problems; (2) when users are engaged to share information and coordinate the completion of interdepends tasks; and (3) contexts of ongoing collective action that is sustained over time.

A set of early studies try to *establish user patterns and communication patterns* in ESMPs. In other words, what are users talking about and what makes up the content and structure of organizational communication? Richter and Riemer (2013) developed a theoretical lens to understand what users talk about on ESMP by employing genre analysis. By drawing on data collected from various ESMPs from different organizations and by performing a cross-case analysis, they create a list of emergent uses or themes that regularly occurs. Users communicate about discussion and opinions, event notifications, idea generation, informal talk, information storage, input generation, meeting organization, problem solving, social praise, status updates and work coordination. Riemer et al. (2010) analyze the communication practices of a corporate team that used an ESMP, finding the same in the above study. A corporate team use the ESMP to perform various communication practices, like providing updates, coordinating people and tasks, share information and ask questions. Riemer and Richter (2010) argue that the use and approbation of ESMPs are structured by the tasks and assignments from a given corporate context. A corporate team's communication practices contribute to support team practices, awareness creation and team/task coordination. This means that by actively engaging on ESMPs can have an integrating impact on the managing and structing of work practices.

Papers examine the potential *influences* an ESMP can have on organizational processes. For example, can ESMPs contribute to socialize new employees into a company's organizational culture? Gonzalez et al. (2013) investigated this aspect in a study of a financial services company, showing two interesting aspects. On the one hand, newly hired hands experience social acceptance and use ESMPs to learn about organizational culture. On the other hand, it revealed that new workers used the same technology to carry out work-related assignments, but they did

not experience self-efficacy or role clarity. Chelmiss et al. (2014) put together a computational agent-based model to frame the dynamics on what role organizational hierarchy play on employees in ESMPs. Using data from a Fortune 500 multinational company, they show that middle managers can be important influencers in adopting the technology. Kato et al. (2014) find that employees working in small organization who are in the beginning and the end of their careers, in their 20s and 60s, view it as beneficial to use ESMPs. But young employees in their 20s working in small organizations, experience use of ESMPs as disadvantageous. Leftheriotis and Giannakos (2014) carried out a survey among several Greek insurances companies and researched motivations for using ESMPs and to what extent the technology can enhance the work performance of employees. One third of the respondents answered that they used ESMPs for work purposes, and that age is not likely to be a determinant for use and adoption. Leftheriotis and Giannakos argue that ESMPs can improve the work performance of employees, as the data analysis substantiates that employees value collaborative and productivity-orientated tools, a result also corroborated in the study conducted by Haddud et al. (2016).

Studies in the research stream have attempted to explore the impact of ESMP by *examining implementation processes in greater detail*. Riemer et al. (2012) studied the implementation of Yammer in a global corporation. They use a sense-making and approbation perspective to understand the uptake of Yammer, based on a content analysis of messages posted over a two-years period. A large data set give the unique possibility to study conversation types and the process of uptake of Yammer. They establish four conversation types and that uptake of goes through four stages, (1) encounter, (2) sleeping, (3) make-or-break and (4) uptake. Also, researchers investigated what types of age groups are more prone to adopt ESMP and how age groups relate to size of organization. For example, Kügler and Smolnik (2014) attempted developing a framework intended to explore employees' *post-acceptance* stage of ESMPs. Based on a survey, they suggest that in a post-acceptance stage one can observe four common distinct user behaviors, which includes consumptive use (describes user pattern where employees acquire knowledge), contributive use (tells how users contribute with knowledge to a platform), hedonic use (describes to what extent ESMP is used for entertainment purposes), and social use (explains how a worker uses the technology to maintain relations with colleagues).

Studies also address more complex research questions. Gibbs et al. (2015) conducted a study where they asked if the introduction of an ESMP in a Russian company could promote cross-boundary communication across geographical and organizational boundaries. The study's backdrop explores a challenge addressed in large organizations that interact in a globalized economy. For example, as they grow in size, one tends to add number of level of hierarchical levels and become increasingly difficult to coordinate and communicate across. Also, they become geographically distributed and hold a hierarchical order, meaning authoritarian and paternalistic leadership. Gibbs et al. (2015) ask whether an ESMP can contribute to flatten communication across hierarchical and geographical boundaries. By using a mix method approach, the findings indicate that a platform contributed to cross-boundary communication. For example, various hierarchical groups – top and middle managers, specialists and support – communicated across and among each other. Gibbs et al. conclude that ESMPs have the potential to break down organizational hierarchies and ease the processes and levels that employees collaborate across. Riemer et al. (2015b) researched whether ESMP can challenge the hierarchical order of an organization and create a new one on an ESMP. For example, the proponents of ESMPs argue that users from the lower levels in the organizational order can become “new organizational influences” in a new order in an online community, if they contribute and engage online, a practice that can undermine the authority of the top-management. Rimer et.al explore

this assumption, based on a data set collected in a knowledge organization. The study establishes if it is the user's position in the organizational hierarchy (which they call for formal influence) or the user's active contribution (informal influence) that triggers a response to other users. Rimer et.al find that organizational hierarchy and communication activity have a significant effect on a user's influence, but it is the user's online engagement that is deceive. Also, they conclude that the ESMPs community become more inclusive and egalitarian and independent from existing organizational structures over time.

Research stream 5: ESMP Policies and Frameworks

Research explores the ways organizations adopt or develop policies and frameworks for use of ESMPs, a research stream called "policies and frameworks" having 4 papers. These point out that organizations are ill-equipped and possess outdated frameworks to manage ESMPs. For example, researchers argue that standard policies used to manage new digital technologies related to the organizing of work practices seldom account for the embedded flexibilities and benefits ESMPs might provide. This means that one needs to develop new "hybridized" frameworks integrating older with new ones. In two conceptual papers, Husin and Hanisch (2011a; 2011b) explore such a framework called "Social Media Organization Policy" (SOMEOP). SOMEOP is a framework that includes both "strengthening the understanding of legal obligations and impacts for employees, while being flexible for the organization to benefit social media (Husin and Hanisch 2011a: no page number)". SOMEOP comprises of five components, "legal obligations", "different levels of management", "general and concise statements", "social media etiquette", and "notifications and standardizations".

Duane and O'Reilly (2012) present a new framework aimed at how organizations can use ESMP to boost business, a model called States of Growth Model. Previous models in the IT research literature assumed managing business growth by a *technology maturity approach*, where technology adoption matures through different stages, reflecting a controlled process where technology managers intervene. ESMPs call for a new approach. This is foremost connected to that ESMPs facilitate for *ongoing social interaction among users*, which challenges previous models. Duane and O'Reilly's model call for abandoning top-down approaches and track growth models by bottom-up approaches. This can be done through five stages. First, one starts with *experimenting and learning*, meaning management without a plan as one pilots and test capabilities. Second, focus is on *rapid growth*, requiring a bottom-up directed pilot with support top-management support, as the value is experimentation and learning. Third, one introduces formalization, meaning that experimenting and learning will find their place in the organization. Fourth, consolidation and integration mean that stakeholders and managers put efforts to provide customers with a more integrated and cohesive ESMP experiences. Fifth, in the final stage, institutional absorption, one has reached a phase where the ESMP is permanently integrated into the organization and is part of key operating areas. In a related study, Heath et al. (2013) argue for that organizations need to develop organizational strategies for engagement on ESMP by use of "topical collectivities". Heath et al. make a similar argument as Duane and O'Reilly (2012); ESMPs rewrite how organizations relate to an external audience, requiring that organizations must outline strategies for how to maintain an ongoing dialogue. This pushes organizations to take an active stand on *who* they wish to engage with *what* means. Based on a study of an information and consulting company, they track its particular work strategies to further organizational goals. For the company, ESMP specialists must continuously monitor various ESMPs where the organization is present and single out specific strategies among peers that can lead to engagement. To create engagement the company's ESMP specialists create certain topics they assume are of interests to the audience.

Research Stream 6: ESMPs and Knowledge Management Systems

ESMPs are viewed as a new internal infrastructure for knowledge sharing, meaning that researchers connect the technology to an existing research stream, research on Knowledge Management Systems. An argument running through several papers, is how Knowledge Management Systems (KMS) are challenged by ESMPs requiring change in use and management. The close ties between KMS and ESMPs make it logical to categorize a new research stream, called “ESMPs and Knowledge Management Systems”, which has five papers. In this research stream, however, researchers point out that current KMS are not fitted to support the work processes practice of today’s knowledge workers. In fact, the technology design of today’s KMS and how employees organize work are to separate issues needing adjustment. To align them, one must first analyze how employees organize workflow and choose the technology platform thereafter. Digmayer and Jakobs (2015) conducted a study on how older KMS are required to change user-design with features commonly used in ESMPs. They claim that today’s KMS have limitations, as they are fitted for knowledge administration, seldom for creation of knowledge. KMS must be redesigned to support what Digmayer and Jakobs call intra-corporate activities of knowledge acquisition and sharing as part of the daily work from a user-centered perspective. Such must account for context related factors as corporate culture, the organization, the workplace, etc.

Beck et al. (2014) explored a large number of messages where the aim was to capture the complex network dynamics between actors on an ESMP. They challenge basic assumptions on who are important community contributors and factors that determine if an exchange of knowledge is regarded of high quality or not. For example, current research KMS horizon focuses on the actions of knowledge contributors and that knowledge creation is an act of *transfer of knowledge* than being *an exchange and a co-creation process* between two parties. Beck et al. argue that current KMS research horizon neglect the role of that online conversation might be influenced by other factors and dynamics. They test out a series of hypotheses that also integrate the symbolic actions and characteristics of knowledge seekers. In fact, they argue that “we found that knowledge seekers’ characteristics and relational factors are crucial in driving knowledge exchanges in ESM-enabled ENoP.”(Beck et al. 2014:1265). Riemer and Scifleet (2012) argue for that the KMS research has treated knowledge as matter that must be coded and being separated from the knowledge bearer, resulting in a framing of it as an artefactual and asserted oriented view on knowledge. ESMPs entail that communication practices in knowledge work must be viewed differently. By employing a genre analysis, they find that Yammer is an: “(1) an information-sharing channel, 2) a space for crowdsourcing ideas, 3) a place for finding expertise and solving problems and, most importantly, 4) a conversation medium for context and relationship building.” (Riemer and Scifleet:10).

Studies argue that ESMPs bring benefits to the organizing of organizational knowledge. ESMPs can be used to improve vertical and horizontal communication, enhance knowledge transfer, and be a mean to introduce newly hired, etc. Aspects of knowledge management processes are not well understood, like the relationships between different uses and the perceived value of ESMPs, an area Mäntymäki and Riemer (2016) explored. They collected data from three different organization that used Yammer and completed a two-step analysis. First, they performed a genre analysis to classify a large number of messages to establish various user patterns, before they, second, developed a measurement instrument to be used in a survey. The genre analysis identify that Yammer is used for work discussions, informal talk, to exchange ideas and for input generation, problem solving, post updates and share events, and for task management. After developing a model and a series of hypotheses, they landed on two set of key findings on how ESMPs are valued. Employees use Yammer as a space for sharing ideas and information

and for informal discussions serving as a mean for forming and maintaining connections across organizational boundaries. In a related study, Rode (2016) explores intrinsic and extrinsic motivation for sharing knowledge and factors determining active participation on ESMPs. Based on a survey of roughly 500 respondents in a large German knowledge organization, Rode finds that extrinsic motivation for sharing of knowledge are related to the reputation and reciprocal benefits. Rode argues that employees share knowledge as a form of social reward. By such, this will improve personal reputation and future benefits that can be reciprocated. In contrast, the study suggests finding that employees appear not have an intrinsic motivation to share knowledge on an ESMP out of the enjoyment of helping others, a finding stressed as remarkable. Rode explains this in terms of that what an employee shares, needs to be of high quality as what you share on ESMP is transparent and can be valued by other. Out of fear for sharing knowledge of low value, employees with low perception of self-efficacy in knowledge sharing avoid participating on ESMPs.

Research Stream 7: Perception, Values and Benefits of ESMPs

Unsurprisingly, new technologies are prone to be viewed as beneficial to organizations, a claim said about ESMPs. In this research stream, nine papers focus on the perception employees have of ESMPs, a research stream inclined to study technology adoption processes and thereby cast light on the *influence* of the technology has on organizations. This research stream is called for “perception, values and benefits of ESMPs”. The research stream provides papers studying early adoption processes. A rear to this aspect, is the unclear understanding on what ESMPs actually do with day-to-day activities in organizations. Landers and Callan (2014) explored the risks and benefits of ESMP can have on employees’ workplace behavior and found large gaps. Based on data collected from Amazon Mechanical Turk, they found that ESMP behaviors established as beneficial by employees seldom were match to their actual job performances. The research stream provides papers studying early adoption processes. Zhang et al. (2010) found in a study that Yammer is not introduced by the top-management. Technology adoption follows a grassroot and bottom-up directed process starting in the middle of the corporate hierarchy and is used by tech savvy employees. Yammer is used to publish news related groups and business news and take the role as an Internet forum in a corporate setting. Employees share non-personal news or news about findings and the practice of information searching. The study establishes a common trait in most online communities today – that a small number of users contribute with a much content, a large portion sparely post, while the rest lurks. Surprisingly, Yammer is valued by middle managers, a group needing connections as part of their job performance. Zhang et al. argue that ESMPs can impede or broaden adoption and create “a noise-to-value paradox”. This connects to spending a lot of time on searching for information and not finding it, which leads to that ESMPs outweigh the costs than the benefits in using it.

A theme surfing in the research stream, is *why* organizations need ESMPs. Organizations experiment with ESMPs, but it is unclear to what end and for what purpose. What challenges can the technology solve? Critical voices question the legitimacy of ESMPs. Such discussions lead for the need to develop studies to explore the nuances of individual communication practices in knowledge creation processes and the perceived value of ESMPs. In a study of Yammer, Mäntymäki and Riemer (2014) studied this aspect and how the platform was used in a large corporation in Australia. Yammer can be used as a space for exchanging and obtaining ideas and information, and therefore has a high perceived value. Further, Yammer can be used for problem solving, but is not a valued as an online space for discussions and social feedback. Majumdar et al. (2013) completed a study on how top and middle managers in organization value the benefits of ESMPs. They analyze how managers see the benefits of using the new

digital technologies over traditional ways of communicating, like e-mail. Managers use ESMPs for searching and broadcasting information, expressing ideas and opinions, access quality information, etc. The findings were grouped into three benefits; (1) information benefits, which included using an ESMP to disseminate and obtain information to solve a task in a fast way; (2) Organization benefits, which means to create closer and personal interaction with customers and the business environment; and (3) communication benefits, meaning using the technology to obtain stronger social connections and with establish connections.

Researchers explore how cultural factors can impact the perception of ESMPs. Cummings and Reinicke (2014) asked what factors can impact trust and the willingness to share by comparing cultural attributes in US and Asian culture against each other. By completing a quasi-experiment based on a data collected by undergraduate students, they found different attitudes. They write that: “users from the two cultures studied had completely different approaches to developing profile trust in the SNS system in the enterprise setting. Utilitarian use appears to significantly influence profile trust in the US while hedonic has an even greater impact on profile trust for Asian cultures (Cummings and Reinicke 2014:7). Papers have explored particular age groups or generations and how they will potentially adopt ESMPs. For example, Generation Y, which are assumed to be digitally skilled, are expected to embrace ESMPs. In contrast, Boughzala (2016) showed through a study of graduate management students that their interests are individualistic and opportunistic. Generation Y sees ESMPs can be used for building professional network, reputation management, finding new job opportunities, etc. Boughzala argue that Generation Y perceives the usefulness in ESMPs for personal benefits than the execution of corporate activities. In general, they are not well-prepared for using the technology.

Researchers redirect research focus from larger to smaller organizations, small or medium-sized enterprises (SMEs). Traditionally, researchers study adoption of KMS in large corporation but SMEs now pick up ESMPs. Researchers ask preliminary questions and attempt establishing aspects like motivation for use, risks and benefits. For example, Issa et al. (2014) studied the adoption of an ESMP from a comparative perspective by looking at the risks and opportunities among employees in an Australian and a Portuguese company. Employees perceive the technology to be useful to organize various tasks, like improve marketing, communication and collaboration among employees and with customers and stakeholders. Also, ESMPs are valued to improve teamwork, facilitate project management, and promote knowledge sharing, but other factors can be seen as risks. ESMPs in small organization require new approaches to legal matters and can be inappropriate use of work hours, for example. Fruhmann and Zeiller (2012), explored motivation for adopting ESMPs, success factors, and barriers for internal uses. Based on a case study design, they collected data from 11 SMEs on use of different types of Web 2.0 technologies. The study yields interesting insights. ESMPs are adopted to avoid information overload in use of e-mail and local storing of data, and the technology can improve corporate communications. Borchardt (2012) explored initial uses in how SMEs integrate ESMPs to organize processes of knowledge management in business processes. By mapping two German SMEs, the study describes a classic challenge for small organizations with limited experience with use of KMS. Both SMEs organized work by few technologies and practices, like of e-mail and weekly meetings, which means a distributed work space. This had implication for organizing an important part of their work – idea work. As employee have few spaces to discuss new ideas, they lose overview of current state of business. By using ESMP, employees saw the benefits of using them to work practices in far better ways. Borchardt’s study is a reminder that in order to introduce a KMS in SMEs, one needs systematic approaches

Discussion

The main objective of this paper has been to perform a comprehensive research literature on how organizational and management researchers approached ESMPs, according to the guidelines as outlined by Creswell (1994). Based on a data sample of 104 papers, the article summarizes a decade of research works, covering the period from 2007 to 2016. The main findings are the categorization of seven large research streams.

In general, the literature study finds that the research field is in its infancy and is devoted little attention in academic journals with high impact factor. ESMPs research is published in lower ranking journals or in journals and conference proceedings with strong technology profile. Addressing each of the research streams, the first one, "IT Companies and Proprietary ESMPs", shows that large IT companies and technology research organizations were the first ones to extensively develop and research the use and outcome of ESMPs on their employees. These studies examined particular platforms and features and report successful use. In contrast, the second research stream, "ESMP Skepticism and Challenges", illustrates that ESMPs face challenges in adoption and implementation processes. The third research stream, "Theoretically Framed Studies of ESMPs", demonstrates a set of studies focusing on empirically high-theory research. Noteworthy, for example, is the broad numbers of papers attempting to develop the affordance concept. The fourth research stream, "Rudimentary Studies of ESMPs", charts a large body of papers exploring basic user patterns and initial use of ESMPs in organizations. The fifth research stream, "ESMP Policies and Frameworks", explores research arguing for the need to develop new organizational outlines to be fitted to the logics and demands set by new digital technologies. The sixth research stream, "ESMPs and Knowledge Management Systems", shows how a small number of papers views ESMPs as an extension of the KMS research stream requiring change in use and management. The seventh research stream, "Perception, Values and Benefits of ESMPs", tends to focus on research that studies adoption and technology adoption processes and highlight the positive influence ESMPs can have on organizations.

The research literature study also allows to draw a more general and holistic picture on the ways ESMPs are empirically used in organizations. Moreover, one can also pinpoint through which channels ESMPs are adopted and implemented. Furthermore, one can also infer what type of organizations are receptive to adopt the technology. In general, ESMPs are used as a connecting arena to maintain and build online and offline social networks across organizational levels and to structure internal organizational communications. ESMPs are also used as a knowledge repository and to carry out a range of complex search and retrieval practices, in addition to developing various communication practices. This means that the platform technology creates a degree of transparency and can facilitate the organizing of work processes in new ways. In contrast, we find barriers to adoption. For example, ESMPs seem to be foremost adopted by a small group of employees, while the rest watches news feeds and communicate on e-mail and chat software. This often render the overall picture that most ESMP communities are sustained by a core group of contributors. The technology suggests foremost to be adopted effortlessly in organizations having previous experiences with ESMPs, like IT companies and research technology organizations. In addition, it is also large organizations that have most experience while smaller organizations lack it. ESMPs suggest being adopted through different approaches. They are introduced by both top management and bottom-up initiatives. Many papers describe that the uptake seldom goes through a classic implementation processes – like going through different structural phases and being matured in an organization – but is an uncontrolled process determined by the contributions of users.

Considering future areas of research, these could include:

- Organization researchers should continue to map how employees use ESMPs. The discipline should address the “whys” and identify factors that encourage or prevent the use of ESMPs. Specifically, we need more knowledge about what role the use and adoption of ESMPs plays in relation to established work practices.
- Organization researchers could narrow their scope and develop research questions around specific themes. For example, we have learned that the use of ESMPs suggests being connected to particular groups and departments within organizations, which are prone to adopting it faster than others. Moreover, research indicates that engagement is created and maintained by a small group of actors, while a larger group remains disengaged. Hence, researchers could focus on establishing the factors and motivators that determine why employees decide to disengage from online sharing.
- Organization studies need longitudinal studies. For example, studies indicate that ESMPs in organizations meet the challenges of creating sustainable communities. Here, researchers could focus on identifying factors that could help to sustain online communities and motivators that contribute to increased online sharing.
- Finally, organization researchers should consider engaging in developing new theories. The discipline should engage in creative thinking and suggest new theories based on empirical descriptions of the use of ESMPs. Such concepts could, for example, have different level of abstractions, as we need both intuitive concepts that explain the use of technology instantly, and high-level theorizing.

Conclusion

This paper aimed showing what research tells us about ESMPs use in organizations. Although it is too early to make final conclusions—more research is needed—the literature study paints an emerging picture. Research suggests that organizations experiment and attempt to ascertain knowledge on initial use. ESMPs generate social network activities, which create positive and negative effects. Employees communicate and bond, thus fortifying our idea that organizations are indeed communicating entities. ESMP seem not to influence established institutional logics and practices. This observation leads therefore to the insight that ESMPs have challenges in becoming sustainable. Few studies report changes in organizational structures. Moreover, on the successes of IT companies, ESMPs yield limited impact. Rather, adopting ESMPs into organizational life is an “uphill struggle” for those who also see it as beneficial. For the vast majority of employees, it seems to represent another ICT that has to be learned, and consequently they are ambivalent. We therefore find the common user pattern that a core group of users adopt the technology and maintain network activities, while a larger user group uses “older” ICTs; they remain in the email sphere and passively monitor the content that the core group shares. Sharing is hence a threshold for most users. This means that there are still many unanswered questions on use and its potential impact on organizational life.

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