Advancing digital collaboration: Barriers to Enterprise Social Media adoption and how to overcome them

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Abstract

Advancing digital collaboration and fostering effective communication among a widespread workforce continues to be a perpetual challenge for companies. Organizations are progressively turning to Enterprise Social Media (ESM) because they promise new avenues for collaborative working. However, most ESMs fail to reach a wider adoption by the workforce, owing to an underutilization by the employees. To enhance the understanding of the underutilization phenomenon, we use affordance actualization theory as our theoretical lens to critically study the challenges employees face in their attempt to actualize respective ESM affordances. By analyzing comments from 992 frequent, infrequent, and discontinued ESM users from a large multinational company, we uncover four major challenges. By enhancing our understanding of ESM affordances and by incorporating the full spectrum from problem identification to solution, we provide practical advice for digital leaders and meaningful theoretical implications for the IS community.

Keywords: Enterprise Social Media, Enterprise Social Networks, Affordance Theory, Digital Collaboration, Barriers.

1. Introduction

In the age of digitalization and globalization, organizations increasingly rely on fast decisions, innovations, and the ability to continually adapt to changing needs (Faraj et al., 2011; Giermindl et al., 2022). However, organizations often struggle to keep pace with the requirements for digitized globalization (Kane, 2017). In particular, they often fail to effectively connect their globally distributed workforce in the face of rigid hierarchies, slow processes, and lack of collaboration (Forsgren & Byström, 2018; von Krogh,

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2012). To tackle these shortcomings, organizations strongly rely on social technologies to promote information exchange among their remote knowledge workers (Sun et al., 2021). They turn to digital collaboration tools such as Enterprise Social Media (ESM), which allow anyone in the organization to access and share content at any time, from anywhere (Leonardi et al., 2013).

ESM provides innovative ways for organizations to manage their evolving digital workforce and to promote social interaction among employees, enhancing employees' engagement, performance, and innovation (Chen & Wei, 2019, Kuegler et al., 2015; Leidner et al., 2018; Li et al., 2022; Meske et al., 2019; Schlagwein & Hu, 2017). By supporting large-scale knowledgesharing, ESM enables employees to harness collective intelligence and the wisdom of the crowd to obtain quick answers to complicated questions (Leonardi et al., 2013). Thus, like their public counterparts, ESM has the potential to revolutionize how people interact in the workplace.

However, many ESM implementations fail or lack widespread adoption (Forsgren & Byström, 2017; Wehner et al., 2017). Although a few studies started to explore reasons for non-usage and ESM failure (e.g. Giermindl et al., 2018; Pirkkalainen & Pawlowski, 2014; Sun et al., 2021), we currently lack comprehensive coverage on why employees struggle to collaborate via these technologies. Our research aims to fill this research gap by identifying ESM affordances, by uncovering what hinders their actualization, and by exploring how organizations can provide support to their employees in overcoming these challenges.

Accordingly, our research questions read as follows:

- 1) What are the challenges that impair employees' affordance actualization?
- 2) How can these challenges be overcome?

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To answer our research questions, we use affordance actualization theory as our theoretical lens (Du et al., 2019; Gibson, 1979; Leidner et al., 2018; Strong et al., 2014). Because the affordance perspective allows researchers to study both technical and social aspects, it has great utility for understanding employees' underutilization. We analyze comments from a group of 992 employees within a multinational, knowledgeintensive company. Our sample comprises both frequent and infrequent, as well as discontinued users of ESM. Overall, we retrieved and manually coded 1 678 statements about employees' challenges and suggestions for improvement relating to the ESM. Drawing on our rich qualitative dataset, we explore the challenges employees face in their daily interactions with the ESM, share first-hand employee suggestions to improve the ESM and provide valuable lessons learned from our practice partner. By employing this approach, we seek to advance the theoretical understanding of social media affordances, reveal the challenges that impair affordance actualization, and provide solutions on how to overcome these challenges.

2. Theoretical Background

By introducing ESM, organizations anticipate to reduce and integrate existing information channels, optimize work processes, and increase employees' productivity (Faraj et al., 2011; Kuegler et al., 2015; Sun et al., 2019). Instead of using multiple information technologies such as intranet, chats, or newsletters, the implementation of ESM offers the opportunity to reduce the range of different information channels and greatly decreases the amount of information (Leonardi et al., 2013; Meske et al., 2019; Wehner et al., 2017). The targeted search for and finding of information, resources, and contact persons facilitates more effective handling and faster completion of work processes for employees.

Simultaneously, regardless of their hierarchical or social position in the organization, employees can equally engage in online discussions, express their opinions, and thereby contribute and encourage creative diversity within the company (Li et al., 2022; Riemer et al., 2015). ESM aims to provide open and transparent communication of information, facilitate networking, and promote an inclusive work environment (Kane, 2017; Leonardi & Vaast, 2017; Riemer et al., 2015). This transformative power of ESM does not only affect the communication but impacts organizational lives. Given these significant and highly desirable benefits, organizations increasingly implement ESMs.

However, many of the implementations fall short of their intended goals (Forsgren & Byström, 2017; Wehner et al., 2017). After an initial phase of strong adaption, the level of engagement is often gradually decreasing. Given that ESM heavily relies on the social interaction of its users to fully exploit the benefits of networked knowledge exchange, the loss of active users prevents these benefits from materializing (Chin et al., 2015; Meske et al., 2019). In addition to the loss of hoped-for profits, many companies experience expensive investments in technology, implementation, rollout, and training of their employees as a waste of resources without effect. To counteract the unnecessary dissipation of valuable resources at an early stage, we need to understand what challenges employees perceive while actively interacting with the ESM.

Concerning the drawbacks of ESM, the organizational risks for companies to introduce ESM have received far more attention by scholars than the individual challenges employees face in their day-today interaction (Chin et al., 2015; Sun et al., 2021). Conversely, scholars have devoted limited attention to the potential challenges associated with these new digital platforms (Giermindl et al., 2017; Giermindl et al., 2022 Pirkkalainen & Pawlowski, 2014; von Krogh, 2012). We close this gap by using the affordance theory as a theoretical lens to determine individual-level ESM affordances.

2.1. The affordance perspective

Recent research emphasizes the importance of carefully distinguishing between technology's features, affordances, affordance actualization, and affordance outcomes (Du et al., 2019; Leidner et al., 2018; Strong et al., 2014). Features are the technical characteristics of a tool, whereas affordances are the action potentials emerging from the interaction between an actor and an object's material features (Du et al., 2019; Leidner et al., 2018). Affordance actualization are "goal-oriented actions taken by actors as they use a technology to achieve an outcome" (Du et al., 2019, p. 53). Further, the actualization of one affordance can produce multiple positive or negative outcomes (Giermindl et al., 2017; Leidner et al., 2018; Majchrzak et al., 2013). Importantly, these outcomes stem from the interaction between the user and the technology, not from the material features of the technology itself (Du et al., 2019; Strong et al., 2014).

So far, the vast majority of researchers have mostly focused on users' intended actualization of affordances, leading to primarily positive outcomes. Relatively little work has considered the adverse consequences of incomplete or impaired affordance actualization (Sun et al., 2019; Volkoff & Strong, 2013). We argue that affordance actualization is greatly impaired by the perceived difficulties and challenges users face while interacting with technology. Furthermore, we argue that users will not actualize an affordance if they perceived challenges too severe (Bernhard et al., 2013; Giermindl et al., 2017; Sun et al., 2019) and, ultimately, the use of the ESM itself. In other words, even if the affordances are perceived, they cannot produce an outcome because their actualization is impeded. Consequently, it is of utmost importance to understand how employees' attempts to actualize ESM affordances are impaired to ensure the successful implementation of the ESM.

3. Methodology

We present an in-depth case study of a global, hightech company, which offers a broad spectrum of knowledge-intensive solutions, products, and services in the areas of automation, power generation, and digitalization. Because the company operates in more than 150 countries and its knowledge-workers are globally dispersed, they are greatly reliant on technologies to exchange expertise, to locate key informants, to interact digitally, and collaborate across geographical and organizational boundaries. Considering these current needs, the organization introduced an ESM in 2013 to foster global knowledge sharing. We were given access to view the ESM platform to see how the ESM platform is used to observe the actualized affordances and affordance outcomes. Our in-depth involvement allowed us to acquire a deep contextual understanding of the organization and gain valuable insights into the challenges and benefits employees face when using the ESM.

3.1. Data collection

To answer our research questions, we conducted a survey and collected qualitative data via questionnaire free-text comments. We asked all participants if they use the company's ESM platform, the respective ESM App, and if they regularly read or follow one or both of the two largest ESM groups. The first group, called *Corporate News*, is the global group for all management communication and official news regarding the company. The other group, *HR Global Community*, includes a variety of HR relevant topics, such as strategic events, information on onboarding, content on leadership, and change management projects.

From an overall of 11 362 survey participants, 34.8% stated that they use the ESM, 2.4% the ESM App, 5.5% the Group *Corporate News*, and 0.8% the Group *HR Global Community* to retrieve information. We made no preselection regarding any socio-demographic characteristics. We asked participants how satisfied they were ("*All in all, how satisfied are you with the following company-internal media as a source of information?*"). Answers ranged from *satisfied* (1),

quite satisfied (2), *undecided* (3), *less satisfied* (4), to *not satisfied* (5) on a five-point Likert scale.

On average, participants were somewhat satisfied with the ESM in general (M = 2.17, SD = 9.13), as well as with the ESM App (M = 2.08, SD = 0.94), the group (M = 2.02, SD = 0.82), and the *HR Global Community* group (M = 2.27, SD = 1.00). Further, we explicitly asked all participants who indicated that they are undecided (3), less satisfied (4), or not satisfied (5) to provide detailed reasons as to how to improve the respective medium ("You've indicated that you are either undecided or less satisfied or not satisfied with the [ESM]. What would you improve?"). Of the participants using the ESM in generally (Q1), 6.6% indicated they were undecided (3), less satisfied (4), or not satisfied (5), while this was true for 0.6% using the ESM App (Q2), 1.1% using the Corporate News group, and 0.3% using the HR Global Community group. In the remainder of this paper, the latter two options (HR Global Community and Corporate News) are integrated into the category ESM Groups (Q3). At the end of the survey, we provided all employees an additional option to describe their challenges and provide suggestions on how the ESM can be improved by asking: Do you have any other praise, criticism, ideas, or suggestions for improving the ESM? (Q4). This question helped us reach all employees, regardless of whether and how often they use the ESM and whether they are satisfied with the ESM.

3.2. Coding of qualitative comments

Overall, we received 1 678 statements from 992 frequent, infrequent, and discontinued users with 865 comments for the first question, 87 for the second, 153 comments for the third, and 573 comments for the final question. If comments included extensive information, we divided these comments into smaller parts. Two trained raters independently coded each question over four rounds. Responses either described current challenges faced by employees or suggested solutions to improve the ESM. Accordingly, both raters classified and coded the comments either as a challenge or as an improvement suggestion. We did not use a predefined coding scheme to allow for the emersion of the categories throughout the coding process. Subsequently, we compared categories in terms of meaning. If categories yielded the same meaning but had different wording, we reconciled and summarized those categories. We did not make any changes in the coding itself at this point. Agreement between the two raters was substantial for the first question with $\kappa = .79$, p <.001 and for the third question with $\kappa = .70$, p < .001 and *almost perfect* for the second question $\kappa = .81$, p < .001and final question $\kappa = .87$, p < .001 (Landis & Koch,

1977). The final coding and the averaged frequency for each category and question are presented in Table 1.

Respondents age ranged from 18 to 67 years (M =43.11, SD = 10.27), with an average organizational tenure of 14 years (M = 14.23, SD = 10.27), ranging from less than one year to 46 years. Less than one-third of the participants are female (29.40%). Regarding the distribution of socio-demographic characteristics within our single case study, we adequately represent the company's structure and provide a characterizing sample. To further enhance the validity of our findings,

we checked for differences in age and gender between categories for each question. Regarding age, we did not find any differences in any of the questions. Concerning the distribution of gender, we found significant differences in the coding only for rater one for the first question ($\chi^2 = 17.41$, p = .03). Men suggested solution six relatively more frequently compared to all other solutions, while women reported solution six relatively less frequently. We believe the unequal distribution of women and men in our sample to cause this statistical artifact.

Affordances	Challenges	Solutions	Improvement Suggestions	Q1 ab	Q2 ^{a c}	$Q3^{ad}$	Q4 ^{ae}	Total
Collaborating affordances	Hesitant collaborative adoption	Establish an understanding of ESM's opportunities	1. Communicate the ESM's purpose and its affordances	2.83%	1.73%	2.78%	17.19%	128
			2. Provide need-based training for collaborative working in ESM	5.47%	2.30%	3.69%	11.87%	124
Networking affordances	Network user experience	Enhance employees' accessibility and connectivity	3. Integrate and reduce channels and tools in the ESM	4.31%	5.75%	5.77%	13.35%	127
			4. Facilitate easy accessibility of the ESM features	16.87%	32.76%	14.67%	19.20%	285
Information gathering / sharing affordances	Excessive demand to find relevant content	Ensure targeted filtering and structuring	5. Provide a solid search function based on AI-enabled filtering	10.53%	28.74%	3.23%	7.60%	188
			6. Reduce information and social overload in the ESM	24.25%	5.755	34.83%	15.27%	352
Organization al visibility affordances	Reticence communi- cation culture	Foster critical communicati on culture	7. Reduce employees' self-focused impression management	6.88%	8.62%	8.09%	4.10%	98
			8. Limiting untargeted information by focusing on job-related content	21.86%	10.92%	16.80%	9.60%	283
Other				6.91%	3.45%	10.15%	1.84%	95

Table 1: Final categories with average frequency for each question

reasonsf

Notes. a Frequency of category occurrence averaged over the two raters to indicate the category's Importance; b ESM General; c ESM App; ^d ESM Groups; ^e Overall Improvement Suggestions ^f Other reasons included information that was not directly linked to the questions, included no suggestion (e.g., no comment), or could not be matched, thus, we will not discuss this category in the subsequent section

4. Analysis and Findings

First, we will briefly present the identified affordances. Secondly, we will describe employees' perceived challenges to actualize these affordances. Finally, we will map the derived improvement suggestions to the respective challenges. Comments for the ESM General, ESM App, and ESM Groups yielded similar information. Because all three concern the use of the ESM, and we find little to no differences between these groups, we will report the findings jointly.

4.1. ESM Affordances

Based on previous literature on ESM affordances, we identified four affordances to be of central

importance for the interaction between the employees and our case company's ESM: Collaborating affordances, networking affordances, information gathering/sharing affordances, and organizational visibility affordances. We highlight the difference between the affordances and the features of the ESM in Table 2. Also, Table 2 provides a concise definition of the respective affordance. Please note that features can relate to multiple affordances (Strong et al., 2014). Because the focus of this paper is to identify the challenges, which hinder the affordance actualization, we will only briefly summarize the systems' features, the affordances, and their definitions in Table 2.

Technology Features	Affordances	Definition of the Affordances
 Working in groups Collaborative working Sharing content Crowd-sourcing 	Collaborating affordances 1. Collaborative Working 2. Working in Groups	Users can collaborate openly and collaboratively with others to create and exchange ideas. Moreover, users can form (closed) groups to complete tasks together (in line with Faraj et al., 2011; Giermindl et al., 2018; Kuegler et al., 2015; Karahanna et al., 2018; Leidner et al., 2018; Majchrzak et al., 2013).
 Connection Communication Receiving alerts Browsing Social searching 	Networking affordances 1. Communication 2. Relationship formation	Users can build and maintain a network with other users as well as interact and socialize with colleagues. Thus, users can receive alerts that trigger their attention to others' content and view the associations of others. Users can also directly communicate with each other (e.g., chatting or sending a private message; in line with Karahanna et al., 2018; Kietzmann et al., 2011; Leonardi & Vaast, 2017; Schlagwein & Hu, 2017; Leidner et al., 2018; Treem and Leonardi, 2012).
 Browsing Collaborative working Searching Sharing content 	Information gathering / sharing affordances 1. Browsing others' content 2. Content-sharing	Users can gather and share information. Firstly, they can receive notifications and alerts that trigger their attention to others' content and browse the content provided by others. Additionally, users can specifically search for content and persons in a targeted way (using keywords, topics, hashtags, etc.). Furthermore, users can share, post, and distribute content to others (in line with Faraj et al., 2011; Karahanna et al., 2018; Majchrzak et al., 2011; Leidner et al., 2018; Treem & Leonardi, 2012).
 Presentation Posting Commenting 	Organizational visibility affordances 1. Self-presentation 2. Meta-voicing	Users can gain organizational visibility by presenting themselves. Thus, users reveal, and present information related to themselves. This involves sharing information that portrays the users in certain ways and enables them to showcase their expertise. Moreover, users can engage in online conversations by reacting online to others' content and activities and seeing how others react to their presence, profiles, content, and activities (in line with Chen & Wei, 2019; Giermindl et al., 2017; Karahanna et al., 2018; Leidner et al., 2018; Li et al., 2022; Majchrzak et al., 2013).

Table 2. Overview of ESM features and affordances

4.2. Challenges for affordance actualization

In analyzing our data, we identified four major challenges to impair to the actualization of the affordances mentioned above: (1) *hesitant collaborative adoption*, (2) *network user experience*, (3) *excessive demand to find relevant content*, and (4) *reticence communication culture*. The result of these challenges is the underutilization of the ESM.

4.2.1. Hesitant collaborative adoption. First, our analyses revealed that employees are hesitant to adopt

and make use of the ESM to collaborate. The *collaborating affordance* enables employees to cooperate openly and collaborate by forming groups or private chat session. However, employees lacked a shared conceptual understanding of this new form of work and how the ESM changes their ways of collaboration. Consequently, they were puzzled and overstrained by the *collaboration affordance*. For instance, they asked: "How does one collaborate? What is the ESM's purpose?" Further, they expressed confusion, because they perceived different usage types: "The ESM is used very differently by different authors

and users, there is no clear line." Specifically, we found that employees struggled to understand if the ESM should be used as a work-related collaboration platform or as an internal social network. Some employees expressed that they were simply overtaxed by the new ways to work digitally: "It is simply too overwhelming, because many employees do not understand the ESM (what is a hashtag, how do I search for information, when does it make sense to create a new group?)," and criticized the fact that "important topics are left for employees to teach themselves."

Our data also disclosed what makes targetoriented training particularly demanding in the context of ESM compared to other technologies: A larger diversity of pre-existing knowledge and experience levels of social media and their affordances due to the prevalence of social media outside the workplace and immense differences in employees' prior exposure to them. Participants also underlined the diversity of generations and knowledge: "many employees cannot handle it, it is differentiating the community" and "for social media dyslexics like me, the usage is not selfexplanatory!" Furthermore, employees stated that their constantly high workload impeded better familiarization with the ESM: "I don't have the time to parse the strings and harvest useful information" and "sometimes I feel guilty to use work time on the ESM because I cannot prove that it helps me." Altogether, their hesitant behavior towards new forms of collaboration impair the actualization of the collaboration affordance.

4.2.2. Network user experience. Second, our results reveal that employees experience a lack of integration and network capabilities to impair the actualization of the *networking affordance*. The networking affordance enables employees to build and maintain their social network by forming online relationships with previously unknown colleagues. However, employees were overwhelmed with the excessive availability of information and experienced difficulties in making their information accessible to a broader network. The understanding and dissolution of this challenge are particularly important, as the formation of a system and the connection of peoples and ideas is a key element of any ESM. Employees said they struggle with the explosion of channels, felt overwhelmed by the number of technologies, and the decision when to use which tool in their daily work: "There are too many sources, and the distribution of the information does not seem *logical.*" Accordingly, they perceived the ESM as vying for their attention with traditional technologies: "The ESM is not a sure-fire success, but an additional medium on top of it, besides e-mail, SharePoint, and Shared Drive." They also emphasized that they cannot reach a sufficient audience and build connections because too few colleagues, as well as top and middle managers, use the ESM: *"Too few people use it, so it becomes an additional tool, not the tool of choice."* Overall, these challenges constrain the actualization of the *networking affordance*.

4.2.3. Excessive demand to find relevant content. Third, the comments revealed that employees have severe problems to identify relevant content in the ESM, which creates hindrances for the actualization of the gathering/sharing affordances. information The respective affordance enables employees to specifically search for the content provided by others or post, share, and distribute content themselves. However, employees felt overstrained to access relevant content. They stated that it is "chaos to find the relevant information", partly owing to the ESMs open structure and design. Thus, they struggled to navigate the ESM: "The ESM becomes extremely flooded and, according to the motto 'If this company knew what this company knows,' you search forever for information and waste much work time." Participants lamented the increasing amount of irrelevant content, stating that there is "Too much irrelevant info flying by."

Further, they emphasized that pronounced media competence and digital skills are necessary to be able the abundant information: to handle "Unfortunately, the ESM is often a data grave, with many discussions leading to nothing. Structured information is hard to find, you lose the overview, the usual 'Facebook dilemma'" As a negative outcome, they worried about missing relevant information: "One often has the impression that either many unimportant things are posted and that the actual important things get lost quickly, leading to constant concern about missing out on relevant information." Altogether, the challenges of excessive demands to find relevant content impairs the actualization of the information gathering/sharing affordance.

4.2.4. Reticence communication culture. Finally, we identified reticence communication culture as the fourth challenge perceived by employees. While the *organizational visibility affordance* makes information permanently visible and increases the audience, this resulted in a lack of critical discussions and excessive self-promotion. Thus, respondents documented that they cannot speak up and express their thoughts freely, owing to a lack of openness, critical opinion, and objectivity. They stated, *"in the ESM, soulless cheers and political correctness are prevailing, and I cannot identify with that"* and *"it feels like people are afraid to post their opinions in ESM."* Likewise, members lamented that many colleagues and managers use the ESM for strategic self-presentation: *"Too many people*

are using ESM to promote themselves rather than a key business topic" and "The ESM seems to be used by too many (managers) for self-portrayal, so the information is sometimes quite blown-up or exaggerated." Further, employees voiced their insecurity if they can trust the content in the ESM and their fear of fake news in the organizational context: "You never know it is a rumor, opinion, advice or guideline." Overall, this challenge impairs the actualization of the organizational visibility affordances.

Overall, we identified four major challenges, which employees face in their day-to-day interactions with the ESM. As previously mentioned, respondents also provided suggestions to improve the ESN, which we will present in the following section.

4.3. Solutions and improvement suggestions

In total, we identified four solutions to overcome the identified challenges: (1) *establish an understanding of ESM's opportunities for collaborative work*, (2) *enhance employees' accessibility and interconnectivity in the ESM* (3) *ensure targeted filtering and structuring of relevant content in the ESM*, and (4) *foster critical communication culture by rewarding objective discussions and opinions in the ESM*. The solutions are based on employees' improvement suggestions to facilitate working with the ESM.

4.3.1. Establish an understanding of ESM's opportunities. Like the first challenge, we discovered employees are hesitant to adopt the ESM as a new form of collaboration. By analyzing the improvement suggestions, we found this challenge to be solved by establishing an understanding of ESMs' opportunities for collaborative work. More specifically, by (1) communicating the ESM's purpose and its affordances, and by (2) providing need-based training for collaborative working in ESM. First, our findings reveal that companies need to communicate the ESM's objectives, as its collaboration affordances require a major paradigm shift. Hence, employees asked for a "better explanation for what and how the ESM can be used at work" as well as "answers to possibilities offered by the ESM for employees in plants and factories." Thus, they suggested: "Make clear how this tool should be used (misuse of many people as a 'personal social media platform')." They also advocated the establishment of clear rules for collaboration by suggesting to "raise the level of awareness regarding possibilities and what is allowed or rather not allowed." Second, our results indicate that organizations need to provide more training for their employees owing to the ESM idiosyncratic affordances. Especially with regards to the changing nature of work

and digital working, they requested more guidance: "Please provide more support for the inexperienced with social media" and "employees need media competence not to get lost in the flood of messages, a seminar on the subject of media competence should be offered to all (!) users as a training."

4.3.2. Enhance employees' accessibility and interconnectivity. The second identified challenge is the network user experience. The solution to this challenge is to enhance employees' accessibility and interconnectivity in the ESM. This can be done by (1) *integrating and reducing channels and tools in the ESM* and by (2) *facilitating easy accessibility of the ESM features.* As employees felt overwhelmed and confused by the large number of communication channels, they called for "one platform for everything. But divided into chapters" and a "focus and limitation to just one channel, for instance, the intranet news should be only diffused via ESM."

Additionally, our data unveiled that companies need to increase the functional scope of ESM and include relevant features to make it easier for users to globally associate with people and content, for instance, by adding an automated translation feature. Another intriguing possibility is to raise the awareness of ESM networking affordances and encourage more people to use it. Participants emphasized to "increase the awareness and show the benefits more to achieve more content via ESM." and "managers need to lead by example concerning ESM usage." Employees also recommended that the ESM should open-up to engage with external workers, and customers to foster association also with external business partners. Hence, they suggested to "enlarge the community, allow external partners to join and exchange should also be possible with other companies," providing new avenues for open innovation and inter-organizational exchange.

4.3.3. Ensure targeted filtering and structuring of relevant content. The third challenge was excessive demand to find relevant content, which deterred users from actualizing the information gathering/ sharing affordance. To address this challenge, we prose companies to ensure targeted filtering and structuring of relevant content in the ESM. Thereby, it is important to (1) provide a solid search function based on AI-enabled filtering and to (2) reduce information and social overload in the ESM. One decisive way to enhance navigation is to improve the search and filtering function to ensure rapid retrieval and an easy findability of content and groups. Employees suggested the introduction of smart filter options to specifically display users the content related to their specific expertise, responsibilities, interests, and work tasks.

Accordingly, respondents voiced, "I only want to be notified about information which is relevant for me." Particularly, they expressed that organizations need to explore and integrate new possibilities regarding selflearning algorithms, data analysis, and artificial intelligence to tailor the presented content to individual needs: "A function 'this group might interest you' is still missing. Suggestions on topics that I already follow, as well as "random hits" would be very interesting," and "use artificial intelligence for routing topics to the experts and rating answers." Further, they stressed that the organization must find ways to handle the abundant and ever-rising amount of data in the ESM to prevent information and social overload. Thus, they suggested that groups are too large to replace emails adequately and proposed having fewer groups with a stronger focus on specific topics: "Perhaps there should be one official group for each topic, and other country-related topics should be hosted within the country's ESM group.'

4.3.3. Foster critical communication culture. The fourth challenge regarding the actualization of ESM affordances was reticence communication culture. To overcome this challenge, we encourage companies to foster critical communication culture by rewarding objective discussions and opinions in the ESM. More specifically, by (1) reducing employees' self-focused impression management, and by (2) limiting untargeted information by focusing on job-related content. First, participants disclosed their disapproval with the prevailing lack of objectivity and critical opinion in the ESM, asking for "real information and not only high gloss" as well as "open and honest communication (without rose-tinted glasses)." Other employees requested "more focus on problems rather than all the great stuff we have done" and "to have more honest and relevant posts, stop using the ESM as an internal 'marketing' or 'career promotion' place."

Further, our findings also uncovered that organizations need to watch out to avoid their ESM to become a forum for self-promotion. Thus, an employee called for "less self-portrayal," "fewer self-praise postings," and "fewer vanity posts." Moreover, respondents highlighted their concern regarding the veracity of information in the ESM owing to the character of digital social networks, asking for "clear indications whether the information is correct or not" and users "to stick to the facts and cut out the warm fluffy stuff that does not impart meaningful information.". We also recommend organizations and particularly communication departments to decrease the amount of irrelevant content, by reflecting more on the content of the postings. Employees call for more communication discipline, asking both official communicators and their co-workers to "reduce the 'noise,' i.e., no postings like 'we had a great meeting in XY (without any content) why it was great, and what others need to know about it" and "only to disseminate messages with concrete content and not 'I/We plan to do something' or 'This event is currently running." Further, they suggested to limit the reach of posts and target it more specifically to the relevant audience: "More postings with relevant content. Not every sales success in Malaysia must be reported to employees of that organizational unit worldwide," and "too many of the posts are irrelevant and should be shared with a smaller audience."

5. Discussion

The study's primary goal was to deepen our understanding of the challenges employees face in their day-to-day interaction in the ESM and how to overcome them. To this end, we qualitatively explored employees' challenges in their daily dealings with ESM. We identified four major challenges: (1) hesitant collaborative adoption, (2) network user experience, (3) excessive demand to find relevant content, and (4) reticence communication culture. We also uncovered four corresponding solutions to overcome these challenges: To (1) establish an understanding of ESM's opportunities for collaborative work, (2) enhance employees' accessibility and interconnectivity in the ESM, (3) ensure targeted filtering and structuring of relevant content in the ESM, and (4) foster critical communication culture by rewarding objective discussions and opinions in the ESM.

5.1. Theoretical implications

Our study has three important theoretical implications for the IS community. First, we add to the growing use of affordance theory in the IS community, by examining a hitherto largely unaddressed phenomenon: challenges to affordance actualization. As one of the first studies, we show that the actualization of an affordance is not only determined by the action potentials arising from the interaction between an object and an actor. Rather, the actualization of an affordance depends on the individually perceived challenges. Affordances will not be actualized if the perceived challenges are too severe. Thus, we extend affordance theory by emphasizing the importance of challenges perceived difficulties perceived before affordance actualization.

Secondly, by clearly separating features and affordances, we show that the perceived challenges are not caused by the design or the user interface of the ESM. Rather, the challenges emerge as a response to the interaction between employees and ESM and the resulting action potentials. Solutions or strategies related to the features of the technology cannot overcome the perceived challenges. Therefore, our research demonstrates the need for an affordancecentered perspective in solving challenges associated with the implementation of ESM.

Thirdly, we identify and categorize reasons why employees are struggling with the ESM in their daily work. By answering the call to investigate employees' underutilization of ESM, we contribute both to broader IS research and its dark sides (e.g. Giermindl et al., 2022; Sun et al., 2021) as well as the growing debate about ESM and its value (Chen & Wei, 2019, Wehner et al., 2017). By giving voice to almost 1 000 ESM users, we identified four major challenges, which hinder employees' affordance actualization, resulting in the underutilization of the ESM. After explicating the challenges, we shared first-hand employee suggestions on how to overcome these challenges and improve ESM, deriving sound, and implementable solutions.

5.2. Practical implications

Owing to the extensive improvement suggestions offered in this paper, we provide strong managerial contributions for improving ESM: First, we recommend organizations to communicate the purpose and the affordances of the ESM. We believe organizations should enact this by exemplifying potential use cases for effective interaction and by demonstrating ESM's capabilities. Second, we encourage organizations to emphasize the user experience of the workforce and use ESM's potential as an all-in-one platform by stronger integrating tools and helpful additional features. Third, we advocate IT and community managers to focus on reducing the amount of irrelevant information and duplicated groups. Instead, it is beneficial to implement a clear design, a solid search function, and smart filtering options. Specifically, we encourage them to explore the potentials of algorithms, social tags, folksonomies, and artificial intelligence to deliver the relevant content to their employees in ESM. Thus, managers can not only increase information quality and reduce information overload but also speed up information gathering and bring people together working on similar topics. Fourth, we highly recommend organizations to encourage more critical discussions and foster objective opinions in the ESM. Therefore, managers must serve as a role model and neither engage in self-presentation activities themselves nor support or reward exaggerated selfpromotion by their subordinates. Instead, they should encourage and positively react to critical postings to promote an open failure and discussion culture. We also advise community managers to reduce the noise by using fewer promotional activities to increase the information and communication quality in ESM. Overall, we are convinced that our study provides rich insights for practitioners for implementing and improving ESM.

5.3. Limitations and future research

Our study has some limitations, which point towards promising avenues for future research. First, we collected data from a single ESM system. Since this organization is a successful global player and its ESM has attained wide adoption, in our view, the retrieved categories are representative. Nonetheless, researchers are encouraged to investigate perceptions of ESM in multi-case studies to enhance our findings' generalizability. Second, it would be insightful to conduct longitudinal studies to establish whether the identified improvement suggestions have reduced the perceived challenges and whether the actions taken have increased adoption by the workforce. While our findings have demonstrated affordances' impacts on the use of ESM, there may be other possible influencing factors. For instance, researchers may investigate tools which differ in terms of their technological maturity. It could be that there are user groups that have similar usage patterns or usage problems regardless of the particular tool that is implemented. Thus, researchers need to compare different organizations and different tools to assess potential implications of the organizational context and culture and to examine the identified challenges of ESM quantitatively.

6. Conclusion

Given the widespread and growing prominence of social media in the workplace, it is crucial to theoretically and practically understand why most ESM implementations fail (Giermindl et al., 2017; Wehner et al., 2017). Using the concept of affordances as a theoretical lens (Gibson, 1979; Volkoff & Strong, 2013), we sought to gain a deeper understanding, which challenges employees face in their daily interactions with ESM beyond the mere perception of the technology, and how these challenges can be overcome. For affordances to be actualized, they need to be perceived (Du et al., 2019; Leidner et al., 2018; Strong et al., 2014). However, the identified challenges may prevent the affordances from being perceived by the user and thus from being actualized. Consequently, the distinction between the perception of a technology and the perception of the affordances resulting from the interaction between the user and the technology adds important layer to understand why users may or may not engage with newly introduced technologies.

By illuminating the idiosyncratic affordances of ESM and shedding light on the challenges, which impeded the actualization of the affordances, we offer an important extension to research on ESM and affordances. Further, our study yields rich strategic and operational implications to guide organizations and managers who are dealing with the implementation and improvement of ESM.

7. References

- Chen, X. & Wei, S. (2019). Enterprise social media use and overload: A curvilinear relationship. *Journal of Information Technology*, 34(1), 22-38.
- Chin, C. P. Y., Evans, N., & Choo, K. K. R. (2015). Exploring factors influencing the use of Enterprise Social Networks in multinational professional service firms. *Journal of Organizational Computing and Electronic Commerce*, 25(3), 289–315.
- Du, W., Pan, S. L., Leidner, D. E., & Ying, W. (2019). Affordances, experimentation and actualization of FinTech: A blockchain implementation study. *Journal of Strategic Information Systems*, 28(1), 50–65.
- Faraj, S., Jarvenpaa, S. L., & Majchrzak, A. (2011). Knowledge collaboration in online communities. Organization Science, 22(5), 1224–1239.
- Forsgren, E., & Byström, K. (2018). Multiple social media in the workplace: Contradictions and congruencies. *Information Systems Journal*, 28(3), 442-464.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Houghton Mifflin.
- Giermindl, L., Strich, F., Christ, O., Leicht-Deobald, U. & Redzepi, A. (2022). The dark sides of people analytics: Reviewing the perils for organisations and employees. *European Journal of Information Systems*, *31*(3).
- Giermindl, L., Strich, F., & Fiedler, M. (2017). Why do you NOT use the Enterprise Social Network? Analyzing Non-Users' reasons through the lens of Affordances. *Proceedings of the 38th International Conference on Information Systems.*
- Giermindl, L., Strich, F., & Fiedler, M. (2018). How do they differ? Analyzing the motivations of posters and lurkers for participation in enterprise social networks. *Journal of Information Technology, Theory and Application*, 19(2), 89–120.
- Kane, G. C. (2017). The evolutionary implications of social media for organizational knowledge management. *Information and Organization*, 27(1), 37–46.
- Karahanna, E., Xu, S., Xu, Y., & Zhang, N. (2018). The needs–affordances–features perspective for the use of social media. *Management Review*, 2(26), 298–310.
- Kuegler, M., Smolnik, S., & Kane, G. C. (2015). What's in it for employees? Understanding the relationship between use and performance in enterprise social software. *The Journal of Strategic Information Systems*, 24(2), 90–112.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159–174.
- Leidner, D. E., Gonzalez, E., & Koch, H. (2018). An affordance perspective of enterprise social media and

organizational socialization. *The Journal of Strategic Information Systems*, 27(2), 117–138.

- Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). Enterprise Social Media: Definition, history, and prospects for the study of social technologies in organizations. *Journal of Computer-Mediated Communication*, 19(1), 1–19.
- Leonardi, P. M., & Vaast, E. (2017). Social media and their affordances for organizing: A review and agenda for research. Academy of Management Annals, 11(1), 150– 188.
- Li, Y., Pitafi, A. H., & Li, H. (2022). Investigating the factors of enterprise social media strain: The role of enterprise social media's visibility as a moderator. *PLoS One*, 17(3).
- Majchrzak, A., Faraj, S., Kane, G. C., & Azad, B. (2013). The contradictory influence of social media affordances on online communal knowledge sharing. *Journal of Computer-Mediated Communication*, 19(1), 38–55.
- Meske, C., Wilms, K., & Stieglitz, S. (2019). Enterprise social networks as digital infrastructures – Understanding the utilitarian value of social media at the workplace. *Information Systems Management*, 36(4), 350-367.
- Pirkkalainen, H., & Pawlowski, J. M. (2014). Global social knowledge management—Understanding barriers for global workers utilizing social software. *Computers in Human Behavior*, 30, 637–647.
- Riemer, K., Stieglitz, S., & Meske, C. (2015). From top to bottom: Investigating the changing role of hierarchy in Enterprise Social Networks. *Business and Information Systems Engineering*, 57(3), 197–212.
- Sun, Y., Liu, Y., Zhang, J. Z., Fu, J., Hu, F., Xiang, Y., & Sun, Q. (2021). Dark side of enterprise social media usage: A literature review from the conflict-based perspective. *International Journal of Information Management*, 61.
- Sun, Y., Zhou, Xinjie; Jeyaraj, A., Shang, R.-A., & Hu, F. (2019). The impact of enterprise social media platforms on knowledge sharing: An affordance lens perspective. *Journal of Enterprise Information Management*, 32(2), 233-250.
- Schlagwein, D., & Hu, M. (2017). How and why organisations use social media: Five use types and their relation to absorptive capacity. *Journal of Information Technology*, 32(2), 194–209.
- Strong, D. M., Johnson, S. A., Trudel, J., Volkoff, O., Pelletier, L. R., Bar-on, I., & Garber, L. (2014). A theory of organization-EHR affordance actualization. *Journal of the Association for Information Systems*, 15(2), 53–85.
- Volkoff, O., & Strong, D. M. (2013). Critical realism and Affordances: Theorizing IT-associated organizational change processes. *MIS Quarterly*, 37(3), 819–834.
- von Krogh, G. (2012). How does social software change knowledge management? Toward a strategic research agenda. *The Journal of Strategic Information Systems*, 21(2), 154–164.
- Wehner, B., Falk, T., & Leist, S. (2017). What benefits do they bring? A case study analysis on Enterprise Social Networks. in Proceedings of the 25th European Conference on Information Systems.