

TEAMING AT THE LIMIT: ENHANCING TEAM EFFECTIVENESS WITH SOCIAL MEDIA AFFORDANCES

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ABSTRACT

Social media are increasingly being implemented in work organizations as tools facilitating communication and collaboration among employees, enabling individuals to team up in new ways. This paper provides a theoretical framework, based on the concept of affordances, to explain how social media technologies can potentially enhance team processes and effectiveness.

INTRODUCTION

Social media have begun to proliferate across organizations as executives and managers attempt to leverage the power of their companies' informal information economies. As an increasing variety of social media take shape, including social networking sites, blog platforms, and wikis, the emergent digital era is creating unprecedented opportunities for collaboration. These computer-mediated tools make it possible for anyone to create, circulate, share and exchange information in a variety of formats and with multiple communities. Enterprise social media (ESM) offer workers several new capabilities, including the ability to communicate messages with specific coworkers or broadcast messages to everyone in the organization, explicitly indicate or implicitly reveal particular coworkers as communication partners, post, edit and sort text and files linked to themselves or others, and view the messages, connections, text and files communicated by anyone else in the organization at the time of their choosing (Leonardi, Huysman, & Steinfield, 2013). Although traditional communication technologies offer some of these capabilities, social media offers all these activities simultaneously. This makes social media an unprecedented platform for public communication that expands the range of people, groups, networks, and texts from whom people and teams can learn and share knowledge with across the organization (DiMicco, Geyer, Millen, Dugan, & Brownholtz, 2009).

The widespread use of social media in organizations is reshaping the ways that organizations structure the work of their employees (Colbert, Yee, & George, 2016). ESM's ability to enhance collaborative opportunities has fueled the trend towards structuring work around teams. Teams enable individuals to transcend the limits of their increasing specialization

The material is based upon work supported by NASA under award No. NNX15AK13G. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Aeronautics and Space Administration.

(Jones, 2009), integrate diverse viewpoints (Cummings, 2004), generate innovative ideas (Jones, 2009; Kozlowski & Ilgen, 2006), and solve wicked problems (Jones, Wuchty, & Uzzi, 2008). The combination of ESM and team-based work systems is enabling individuals to team up in ways that would not otherwise be possible. In fact, social media has not only prompted a shift in thinking about collaborative behavior, but also a shift in thinking about teams, to one of teaming (Edmondson, 2012).

In this era of rapidly evolving technologies that provide employees an ever-increasing supply of information and access to people, social media offers the potential to help teams overcome some of their perennial challenges. Over the last half century of research on team effectiveness, scholars have identified key team processes and properties, such as diverse composition, and sharing unique information that increase the likelihood that teams will succeed (Hackman, 2012; Kozlowski & Bell, 2013). However, despite the normative recommendations from scholars, teams have natural organizing tendencies that run counter to what research suggests is integral for their performance. As social media proliferates across organizations, it offers unprecedented features that afford new ways for communication, interaction, and collaboration in teams, as well as the potential for new action to augment teaming capabilities.

In this paper, we aim to understand the ways in which ESM enables teams to “team up” in new ways. We begin by reviewing studies on social media use within organizations that have examined how social media has afforded new ways for organizational workers to accomplish their work tasks. We then identify a distinct set of *social media affordances* that are relevant to teaming. Next, we integrate past research on conceptual models of team effectiveness to identify key *team processes* that increase the odds that a team will be effective. For each of these, we examine how and why the self-organizing tendencies of teams contradict the normative recommendations that research suggests is optimal to their performance. Lastly, we describe the ways in which *social media affordances* help teams overcome their perennial challenges inhibiting their effectiveness.

A CONCEPTUAL MODEL OF SOCIAL MEDIA AFFORDANCES ON TEAM PROCESS

Background on Enterprise Social Media (ESM)

Organizations are increasingly using social media for internal communication and social interaction within the organization. Unlike external uses of social media that cross multiple public platforms, most organizations use an *integrated social media platform* for internal communications (Leonardi & Vaast, 2017). Hence, it is appropriate to refer to these technologies collectively, rather than as individual tools that enable different activities, such as social networking, or microblogging (Leonardi et al., 2013). ESM provide a forum for public communication among employees about user-generated content (DiMicco et al., 2009) that is visible throughout the organization (Leonardi et al., 2013). Its open nature makes knowledge publicly visible not just within teams or with connected others, but also, with unknown others.

Despite their increasing adoption, the effects of social media use on organizational processes remains vastly underexplored, particularly at the team and interteam levels (Leonardi & Vaast, 2017). This calls for a need to explore the role of ESM use in teams for theory building and conceptualizing the ways social media use becomes integrated into work teams.

In Figure 1, we present our conceptual model linking social media use to team processes. The teaming environment is comprised of the team's goals, the features of the social media, as well as the features of the social media. Together, these three factors influence how teams enact a technology's affordances. The team's perceptions of these affordances then influence how teams carry out their essential team processes. In the remainder of this section, we go into further detail on each stage of our conceptual framework.

Figure 1 about here

Social Media Affordances Framework

Like previous scholars who have examined the relationship between new technologies and social practices, we take an affordance lens to develop theory on how teams use the material features of social media technologies to overcome their teaming challenges (Evans, Pearce, Vitak, & Treem, 2016; Faraj & Azad, 2012; Treem & Leonardi, 2012). The term "affordance" refers to the potential for action that new technologies provide to users, and is useful in explaining why human and material agencies become imbricated, or function interdependently (Leonardi, 2011). All technologies are constructed out of material features that have properties that transcend their context of use that permit certain actions and limit others. When individuals perceive that those features allow them to perform certain actions, the technology can be said to provide an "affordance" (Treem & Leonardi, 2012).

We review existing research on affordances to identify a taxonomy of affordances that is relevant to teaming. Our resulting taxonomy contains a hierarchical structure with superordinate categories and subordinate categories, which we refer to as to as primary and secondary affordances. We posit that the identified set of primary affordances are most relevant to improving team processes.

The Construct of Team Process and Teaming Challenges

There is a long tradition in small group research of studying the inputs, processes, properties, and emergent states that promote team effectiveness (Kozlowski & Ilgen, 2006). In this work, we focus on team process, as they constitute the critical vehicles that transform team inputs into both proximal (e.g., emergent states) and longer-term outcomes (e.g., performance, productivity). Guided by Marks, Mathieu & Zaccaro (2001)'s framework of team process, we identify three superordinate categories of team processes, namely *design processes*, *action processes*, and *interpersonal processes* that have received replicable support in the literature. Within these superordinate categories, we review research in team effectiveness literature to identify a subordinate set of team processes that have received replicable support in the literature.

In reviewing the literature, we have identified several ways in which the self-organizing tendencies of teams often counter what research has prescribed as optimal for their performance. Specifically, although theory recommends that teams need a collection of processes to promote team effectiveness, teams face numerous challenges achieving their prescribed normative recommendations. For example, rather than the following the prescribed recommendation to

form diverse teams, individuals tend to seek out homophilous members and prior teammates to reduce uncertainty (Ruef, Aldrich, & Carter, 2003). Thus, because of their self-organizing tendencies, teams typically experience difficulties carrying out effective teamwork processes that increase their likelihood of being effective.

The Effects of Social Media Affordances on Team Process

Teams must bridge the discrepancies between their self-organizing tendencies and their requirements for team effectiveness to overcome their teaming challenges. The unprecedented opportunities for collaboration afforded by social media technologies can support, promote, and regularize team behaviors.

Using our taxonomy of primary social media affordances and critical team processes, we develop a model with eight testable propositions on how social media capabilities might enable teams to overcome self-organizing tendencies that contradict their normative recommendations. We propose that certain combinations of social media affordances can enable teams to overcome each of their team process challenges. Further, we theorize the conditions under which teams enact social media affordances to achieve more effective team processes.

CONCLUSION

This paper contributes to our understanding of social media use and team effectiveness. We bridge the mismatch between normative recommendations for team effectiveness and the self-organizing tendencies of teams by proposing that ESM affords teams with new capabilities to accomplish their collective goals. Thus, our conceptual model provides a starting point for future empirical research on how social media use enables more effective teaming.

We also contribute to theory on social media affordances, and its implications on team phenomena and processes. Prior studies have developed testable theoretical models that describe the ways that individuals use social media to accomplish work tasks, but research on the use of ESM at the team and inter-team level remains largely unexplored (Leonardi & Vaast, 2017).

In conclusion, our research proposes ways to integrate the emergent literature on ESM with the large body of work on team effectiveness, and offers the potential to increase the opportunities for successful collaborations in teams.

REFERENCES

- Colbert, A., Yee, N., & George, G. 2016. The digital workforce and the workplace of the future. *Academy of Management Journal*, 59(3): 731-739.
- Cummings, J. N. 2004. Work groups, structural diversity, and knowledge sharing in a global organization. *Management Science*, 50(3): 352-364.
- DiMicco, J. M., Geyer, W., Millen, D. R., Dugan, C., & Brownholtz, B. 2009. People sensemaking and relationship building on an enterprise social network site. *Proceedings of the 42nd Annual Hawaii International Conference on System Sciences*. Los Alamitos, CA: IEEE Computer Society Press.

- Edmondson, A. C. 2012. *Teaming: How Organizations Learn, Innovate, and Compete in the Knowledge Economy*: John Wiley & Sons.
- Evans, S. K., Pearce, K. E., Vitak, J., & Treem, J. W. 2016. Explicating affordances: A conceptual framework for understanding affordances in communication research. *Journal of Computer-Mediated Communication*.
- Faraj, S., & Azad, B. 2012. The Materiality of Technology: An Affordance Perspective. *Materiality and Organizing: Social Interaction in a Technological World*, 237-258.
- Hackman, J. R. 2012. From causes to conditions in group research. *Journal of Organizational Behavior*, 33(3): 428-444.
- Jones, B. F. 2009. The burden of knowledge and the “death of the renaissance man”: Is innovation getting harder? *The Review of Economic Studies*, 76(1): 283-317.
- Jones, B. F., Wuchty, S., & Uzzi, B. 2008. Multi-university research teams: Shifting impact, geography, and stratification in science. *Science*, 322(5905): 1259-1262.
- Kozlowski, S. W. J., & Bell, B. S. 2013. Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, R. J. Klimoski (Eds.), *Handbook of Psychology: Industrial and Organizational Psychology*, 333–75. London: Wiley.
- Kozlowski, S. W., & Ilgen, D. R. 2006. Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, 7(3): 77-124.
- Leonardi, P. M. 2011. When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS Quarterly*, 35(1): 147-167.
- 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 future research. *Academy of Management Annals*, 11(1): 150-188.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. 2001. A temporally based framework and taxonomy of team processes. *The Academy of Management Review*, 26(3): 356-376.
- Ruef, M., Aldrich, H. E., & Carter, N. M. 2003. The structure of founding teams: Homophily, strong ties, and isolation among US entrepreneurs. *American Sociological Review*, 195-222.

Treem, J., & Leonardi, P. 2012. Social Media Use in Organizations: Exploring the Affordances of Visibility, Editability, Persistence, and Association. *Communication Yearbook*, 36: 143-189.

FIGURE 1
A Conceptual Model of Enterprise Social Media Affordances on Team Processes

