From Monologue to Dialogue: Using Performative Objects to Promote Collective Mindfulness in Computer-Mediated Team Discussions

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Abstract

Organizations often build virtual teams to draw information from different parts of the organization to enable better decisions. However, communication patterns among virtual team members often resemble multiple monologues (in which team members broadcast what they know) rather than dialogues (in which team members mindfully share information they have and consider information from others). The result is that team members often fail to integrate the new information they receive from other team members into their mental models, and decision quality suffers. Collective mindfulness is a team-level process in which team members heedfully contribute to the team discussion, align their own actions with the actions of others, and develop shared mental models. Collective mindfulness is more than a sum of individual mindfulness in much the same way that organizational learning is more than the sum of the individual learning of its members. We compared teams using a traditional synchronous text chat tool to teams using a combination of tools designed to promote collective mindfulness (chat plus a whiteboard). The results suggest that teams using chat plus the whiteboard had increased collective mindfulness, and that this increased collective mindfulness led to improved decision quality. Not all teams were effective in using the whiteboard, indicating it was not the provision of the whiteboard that mattered, but rather how teams appropriated it. We identified four appropriations, the combination of which led to increased collective mindfulness and decision quality: information aggregation, discussion of information distribution, discussion of decision criteria, and voting. If any one of the appropriations was missing, collective mindfulness and decision quality suffered.

Keywords: Collaboration technology, team, group, collective mindfulness, whiteboard, information exchange, information integration, appropriation