

# IS-ENABLED CROWD-SOLVING AND ORGANIZATIONAL TRANSFORMATION

*Research in Progress*

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## Abstract

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Crowd-solving is a fresh research avenue, which first appeared as a subset of crowd-sourcing (Geiger et al., 2011). However, crowd-solving can be traced back to creative problem solving (Osborn, 1957), problem-finding (Newell and Simon, 1972; Reix et al., 2011), idea management (Schroeder and Robinson, 2006) and even open innovation (Chesbrough, 2003). Information Systems play an important role in every one of these domains: electronic brainstorming (Dennis et al., 1997; Dennis and Reinicke, 2004; Pinsonneault et al., 1999), idea management systems (Leimeister et al., 2009; Westerski et al., 2013) and computer aided innovation (Hüsig and Kohn, 2011) are examples of IS-enabled crowd-solving systems. To our knowledge, IS research mainly focuses on the “open” dimension, i.e. on “exchange[s] between an [external] innovation community and the company that is looking for external ideas” (Hüsig and Kohn, 2011, p. 411).

When studying IS-enabled crowd-solving in the specific context of organizational transformation, we need to change perspective, and to consider innovation communities inside the organization. The transformational potential of crowd-solving, focusing on exploratory and discursive capabilities offered by IS, remains unexplored to our knowledge. This leads us to put forward two research questions: (1) Can collective intelligence and crowd-solving contribute to organizational transformations (OT)? (2) If so, how can IS contribute to these new OT initiatives?

In order to answer, we first delineate Organizational Crowd-Solving (OCS). This enables us to stress that OCS is an intra-organizational phenomenon. OCS thus appears as an extension of crowd-sourcing, which mainly focuses on the outside of organizations. We also propose to articulate OCS with other concepts, such as Massively Collaborative Problem Solving (MCPS) (Greene et al., 2012), sensemaking (Weick, 1995) and organizational learning in crowd-oriented projects (Schlagwein and Bjørn-Andersen, 2014). Next we focus on crowd-solving in OT settings. By mobilizing a processual approach (Besson and Rowe, 2012), we show the different enabling capabilities CSO can provide during the different transformational stages. We then present the results of three case-studies and an autoethnographic study to explore how IS contribute to OCS; and to assess the transformational role of IS-enabled OCS. These case studies show how IS can be used in different ways, and at different stages, by OCS. For example, internal innovation champions and/or communities may emerge through OCS during the exploration stage of OT. IS can enable multiple-dialogs regarding solution-finding that may have not occurred otherwise. We also propose that IS-enables OCS are opportunities to apprehend dissonant tropes (Oswick et al., 2004) that may remain less visible (e.g.: spoken-forms) in other organizational settings. On the other hand, our case studies also show that IS has to be supported by management; and that management has to give enough freedom to gain an active participation. This dual approach, crowd-oriented while management-driven calls for clarification in future research. The results of our research lead us to formulate propositions in the IS, OCS and OT fields.

(Words count : 473)

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