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Disentangling the Effects of Collaborative Social Platforms on Organizational Knowledge Practices and Innovation: A Mixed-Methods Study of a Non-Profit Organization

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INTRODUCTION

Social media has given birth to a novel paradigm of knowledge management that entails both formal and informal communication to bring about collaboration via diverse applications. Through online conversations and virtual interactions, the advent of social media is accompanied by unprecedented means of sharing, externalizing and retaining knowledge. In doing so, social media allows the articulation of personal and collective knowledge for innovation and value co-creation (Razmerita et al. 2014).

Emerging social-collaborative platforms in the likes of Podio, Jive, Trello, Yammer, and Slack promote communication, collaboration, and project work. These platforms incorporate social media and networking functionalities for realizing both synchronous and asynchronous cooperative efforts. This study hence takes a critical view of the adoption and deployment of collaborative social platforms in a knowledge-intensive organization through a mixed methods approach.

Past studies have alluded to the instrumental role of collaboration and teamwork in driving knowledge creation, learning, and innovation, which in turn culminates in changing patterns of work organization (Brown and Duguid 1991, Weick et al. 2005) or technology-induced organizational transformation (Leonardi and Barley 2008). Within extant literature, both academics and practitioners have begun to experiment with the usage of social media within organizations, hoping to either reap the benefits of lightweight informal collaboration among employees (Brzozowski et al. 2009, Skeels and Grudin 2009) or, more recently, to introduce new affordances into work routines such as communication visibility, personal and communal knowledge management, as well as strategic self-presentation (Leonardi and Treem 2012, Majchrzak et al. 2013, Razmerita et al., 2009).

Organizations are framing the role of technology as mutual interactions between human agents and technical systems. Consequently, technology can be deemed to be structurally and socially constructed (Orlikowski and Barley 2001). As alleged by Orlikowski (1992), “there is no compelling evidence on the precise role of technology in organizational affairs” despite extensive investigation. We hence contend that an in-depth appreciation of both the scope and effects of technology, especially in the form of collaborative social platforms, is indispensable for deciphering the changing nature of work within organizations.

To this end, we present preliminary findings of an empirical study that endeavors to unravel the impact of deploying socio-collaborative platforms on knowledge practices and innovation in a non-profit organization. Through a mixed methods study, we strive to provide answers to the following research question: *How do knowledge practices affect innovation within organizations and what is the role of collaborative social platforms in facilitating these knowledge practices?*

CASE DESCRIPTION

AIESEC is the world's largest student collective and has a presence in more than 110 countries. With over 86,000 members worldwide. AIESEC is a global youth organization that not only provides young people with a leadership forum, but it also offers students and recent graduates the opportunity to pursue international internships. AIESEC members constitute a mobile transient workforce, with 32% of its members having spent less than 6 months in the organization, 17.7% having spent between 6 months and 1 year as well as 29% having spent between 1 and 2 years. Only 21% of AIESEC members have spent more than 2 years in the organization.

Podio is a collaborative social work platform that is designed with features comparable to other social networking applications. According to its designers, Podio endeavors "to change the way people work" by empowering knowledge workers to build their own applications for managing work processes better and smarter. Furthermore, Podio enables user-driven customization of the workflow and of work spaces: "with content, conversations, and processes structured and together on one tool, Podio creates the focus and clarity your people need to get their best work done". In this sense, a deeper understanding of how Podio has been deployed within AIESEC will shed light on the impact of collaborative social platforms on knowledge practices and innovation.

METHODOLOGY

To unravel the effects of collaborative social platforms on knowledge practices and innovation within organizations, we opted for a mixed methods approach. As acknowledged by Venkatesh et al. (2013), a mixed methods approach can generate rich insights into the phenomenon of interest that cannot be fully comprehended via only qualitative or quantitative techniques. Due to the nature of our study, a mixed methods approach, which combines qualitative data from semi-structured interviews and quantitative responses from survey questionnaires, can yield deep and generalizable insights into the strengths of collaborative social in shaping knowledge practices and innovation within organizations. Data was collected over two phases with the first phase taking place in 2012 immediately after the introduction of Podio into AIESEC and the second phase three years after.

In the first phase, six interviews were conducted with main stakeholders in AIESEC, two with team leaders, three with executive board members, and one with an IT consultant and expert working with Podio. The first set of interviews assumes more of an exploratory nature in helping us to identify the way Podio was deployed within the organization as well as the core challenges and focal benefits (i.e., knowledge practices) associated with its usage. Follow up interviews were then conducted after three years to assess the diffusion and longer-term impact of Podio within AIESEC. In the second phase, we interviewed five AIESEC members and also conveyed a focus group involving team leaders from five separate functional areas. All interviews lasted between 30 and 45 minutes for the two phases.

Interviews were recorded and transcribed verbatim. Afterwards, the interview data was imported, coded, and analyzed in NVivo in accordance with thematic analytical procedures. When analyzing the qualitative data, we paid close attention to users' perceptions

of Podio to extract themes relating to both opportunities and challenges of deploying collaborative social platforms for managing knowledge practices and innovation. These themes were subsequently classified along the three dimensions of individuals, technology, and organization. Key themes, which were identified through the coding of interview data from the first phase, guided data collection in the second phase and were further refined during analysis. The coding process not only revealed two primary knowledge practices (i.e., **retention** and **sharing**) that govern innovation within organizations, but it also pointed to corresponding technological affordances (i.e., **communicability** and **usability**), which must be present within collaborative social platforms, to support these knowledge practices. Together, the preceding knowledge practices and technological affordances form the basis of our proposed research model on the effects of social collaborative platforms on firm innovation (see Figure 1 below).

To validate our proposed research model, a larger scale survey questionnaire was devised and administered to members of AIESEC. The survey received 51 complete answers (out of 62 respondents). Data elicited through the survey was analyzed via Structural Equation Modeling (SEM) techniques.

ANALYTICAL FINDINGS

From the interviews, it appears that the management at AIESEC did not harbor a clear vision of how to harness the potential of collaborative social platforms. Furthermore, due to its transient workforce, AIESEC found it difficult to train and integrate new employees into the organization within a limited amount of time. To compound onto its problems, AIESEC Denmark is a subsidiary of a global association and the adoption of Podio in the local Danish organization led to two separate communication platforms. Yet, despite these challenges, interviewees admitted that Podio offers undeniable advantages for **knowledge retention** (Quote: “...last year we decided to collect the most important information regarding customer [in order to] have an overview of what happened before...this year’s focus is to document the important knowledge for a specific management team member to understand how they perform their roles”) and **sharing** (Quote: “...because [Podio’s] the official communication channel, so if there’s something relevant to AIESEC we usually post it there”). To support these knowledge practices however, interviewees have recognized the importance of ensuring **communicability** (Quote: “I would say communications because even though [Podio] facilitates project management, but the project management part—like the most important ones—are offline”) and **usability** (Quote: “Podio becomes confusing when you have too many workspaces and apps...Keeping it simple is super important”) for collaborative social platforms.

To affirm the applicability of the themes which have derived from our exploratory interviews, we advance and test a research model that posits the communicability and usability of collaborative social platforms as antecedents affecting knowledge retention and sharing among organizational members, which in turn dictates the level of innovation (see Figure 1). Data gathered from administering a survey on members of AIESEC were then analyzed via SEM to test our hypothesized relationships. As can be deduced from Table 1, all latent constructs meet recommended thresholds for Average Variance Extracted (AVE), composite reliability and Cronbach’s alpha. Moreover, the square root of the AVE for each

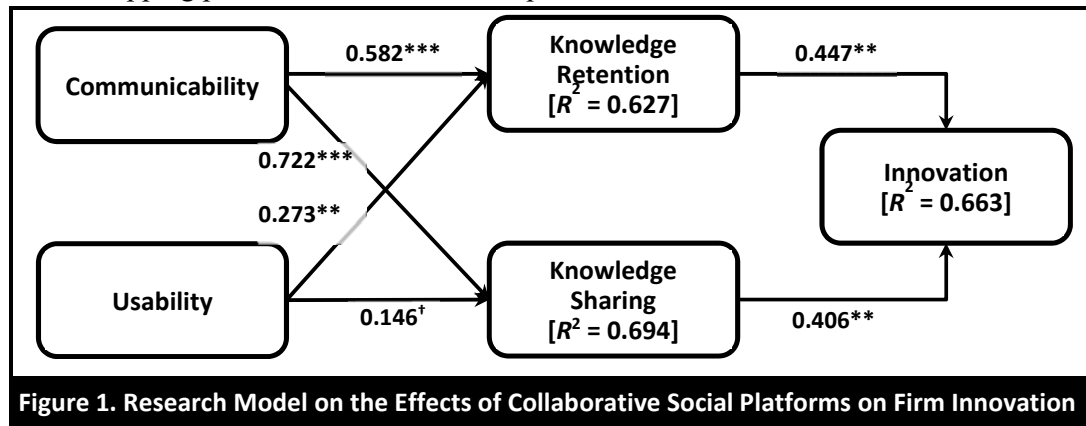
latent construct is greater than its correlations with any other construct. Taken together, the results testify to the convergent and discriminant validity of our survey instrument.

Table 1. Inter-Construct Correlation Matrix

| | Average Variance Extracted [$\geq .50$] | Composite Reliability [$\geq .70$] | Cronbach's Alpha [$\geq .70$] | COM | INO | KNR | KNS | USE |
|-----|---|--------------------------------------|---------------------------------|-------|-------|-------|-------|-------|
| COM | 0.676 | 0.892 | 0.838 | 0.822 | | | | |
| INO | 0.558 | 0.898 | 0.868 | 0.773 | 0.747 | | | |
| KNR | 0.593 | 0.921 | 0.901 | 0.765 | 0.682 | 0.770 | | |
| KNS | 0.654 | 0.883 | 0.823 | 0.720 | 0.674 | 0.727 | 0.809 | |
| USE | 0.498 | 0.854 | 0.796 | 0.669 | 0.545 | 0.663 | 0.629 | 0.706 |

Note: COM – Communicability; INO – Innovation; KNR – Knowledge Retention; KNS – Knowledge Sharing; USE – Usability

Results from the PLS analysis of the structural model, including path coefficients and their statistical significance, are illustrated in Figure 1. Standard errors were computed via a bootstrapping procedure with 500 re-samples.



From Figure 1, we can discern that the communicability ($\beta = 0.581$; $p < .001$) and usability ($\beta = 0.285$; $p < .01$) of collaborative social platforms positively influences knowledge retention within AIESEC, accounting for 63.4% of variance in the latter. Likewise, the communicability ($\beta = 0.721$; $p < .001$) and usability ($\beta = 0.157$; $p < .10$) of collaborative social platforms exert positive and significant effects on knowledge sharing among members within AIESEC, explaining 69.4% of variance in the latter. In turn, knowledge retention ($\beta = 0.447$; $p < .001$) and sharing ($\beta = 0.406$; $p < .001$) positively impact innovation within the organization, which when taken together, account for 66.3% of variance in the latter.

CONCLUSION

Social media has recently started to gain momentum in professional settings for organizational communication and collaboration. Specifically, it is projected that collaborative social platforms can streamline workflows and cultivate problem solving capabilities through strengthening knowledge practices. But at the same time, past studies have suggested that the deployment of collaborative social platforms may not be straightforward due to both individual and organizational factors (Razmerita et al., 2016).

Employing a mixed-methods approach, this study seeks to uncover the role of collaborative social platforms in molding knowledge practices and innovation within organizations. Through a mixed method investigation of AIESEC involving both qualitative interviews and quantitative surveys, we unravel affordances of collaborative social platforms (i.e., communicability and usability) that contributes to knowledge retention and sharing among members through altering contemporary work practices. This in turn yields a positive impact on innovation within the organization.

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