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The impact of hierarchical positions on the type of communication within online Communities of Learning



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ABSTRACT

Communities of Learning (CoL) have been suggested to facilitate the learning process among participants of online trainings. Yet, previous studies often detached participants from the social context in which learning took place. The present study addresses this shortcoming by providing empirical evidence from 25 CoL of a global organization, where 249 staff members from different hierarchical positions engaged into collaborative learning via asynchronous discussion forums. We conduct a longitudinal study on the type of communication within these CoL, as well as participants' network positions, in order to investigate the research question: What is the impact of individual's hierarchical positions on the type of communication within CoL? Our results indicate that the higher participants' hierarchical position, the higher their amount of social and cognitive communication, which in turn was also positively related to their network position within CoL. We also identified a sub-group of Stars that outperformed their colleagues and who were at the center of CoL, irrespective of their hierarchical positions. Consequently, we propose design and facilitation strategies to practitioners and organizers of future CoL that can foster the learning processes and outcomes of all participants. Additionally, we consider future research avenues that could be explored further.

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1. Introduction

Online collaborative learning is considered a promising approach to foster learning processes among participants irrespective of time and place (Volet, Vauras, & Salonen, 2009). Moreover, Jehn and Bezrukova (2004) stated that connecting employees with different background characteristics can create a fruitful atmosphere for them to share their experiences, while acquiring various job-related skills and effectively processing new information. In essence, this approach is rooted in the notion that learning is considered an interactive process, where participants collaboratively engage into discussions within online communities (Hakkarainen, Palonen, Paavola, & Lehtinen, 2004). In the field of professional learning, organizations like Dell and Motorola have

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successfully introduced such online communities to foster the effective exchange of knowledge and experience among staff members (Shrivastava, 1999). A Community of Learning (CoL) is one representation of such online communities that allows participants to share and create new knowledge and experiences (Stacey, Smith, & Barty, 2004). We define a CoL as a group of people who engage in collaborative learning and reflective practice for the purpose of transformative learning (Paloff & Pratt, 2003). The members of a CoL are appointed. They share well-defined goals and objectives for their collaborative learning although the overall level of interdependence amongst each other remains limited. Individual contributions to the collaboration and individual performance are the basis for rewards (Gilley & Kerno, 2010). Hence, a CoL exhibits a high degree of structure and formality (Dascalu, Bodea, Lytras, de Pablos, & Burlacu, 2014; Zhang, Fang, Wei, & Chen, 2010). The learning process of the CoL is facilitated by dedicated staff (Allan & Lewis, 2006) and then fostered by the (extensive) use of technical media, e.g. asynchronous discussion forums (Githens, 2007). The CoL is an example of situated learning: while an individual is at the centre of his or her learning, the underlying process is situated and

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influenced by the particular context in which the learning takes place i.e. the group (Spoelstra, van Rosmalen, Houtmans, & Sloep, 2015). Consequently, scholars have argued for CoL, when considering online communities within the context of formal (professional) training.

Previous research on online communities has provided valuable insights on the conditions for effective online collaborative learning. Focal research questions were centered around how to create interactive online learning environments (Roblyer & Wiencke, 2003), or the impact of group size on online learning (Vrasidas & Zembylas, 2003). Furthermore, scholars have assessed the content of what participants' contributed to online discussion forums. While some researchers have found advanced level cognitive discussions in online (asynchronous) communication (e.g. Järvelä & Häkkinen, 2002), others reported that discussions did not vield higher levels cognitive communication (e.g. Naidu & Järvelä, 2006). Yet, while the potential impact of existing social relationships on communication patterns has been noted by numerous scholars, this particular area of research remains underinvestigated. The present research departs from the notion that the learning process "occurs in a social context through relationships" (Mora, Pont, Casado, & Iglesias, 2015, p. 891). Hahn, Lee, and Lee (2015) stipulate that individuals are (active) members of a network, rather than existing in a vacuum. Here, Weisband, Schneider, and Connolly (1995) stated that computer-mediated communication should lead to a "deindividuation" (p. 1125) of participants that weakens social norms and reduces social inhibitions. DeSanctis and Monge (1998) attributed this process to their observation that online relations are readily reconfigurable, allowing newly developed connections to potentially substitute established social norms from other contexts. Similarly, Fransen, Kirschner, and Erkens (2011) suggested that "learning teams usually have a short lifecyle and can be characterized as democratic" (p. 1104). As a result, the authors argue that in such short lived settings should a more equally distributed division of activity among participants will prevail. In contrast, authors like Hopp and Zenk (2011) proposed that "[...] diversity might be a hindrance for team members to engage effectively in interpersonal exchanges to share information [...]" (p. 2976). Particularly considering organizational settings, van der Krogt (1998) highlighted that an individual actor is member of both a learning network, which is mainly governed by horizontal communication, as well as a work network, which is characterised by vertical communication. Additionally, he postulated that individuals, who are able to influence their work network, e.g. by means of their hierarchical position, will also attempt to exert influence on their learning network. Consequently, surrounding social norms and behavioural patterns will heavily influence the way individuals communicate with each other in an online environment (e.g. Ferrara, Brunner, & Whittemore, 1991). In this context, Wilkins (1991) suggested that this process will evolve over time. While acknowledging a potentially egalitarian effect of online communication, due to reduced social context cues, she argued that established social norms and organizational structures, such as hierarchical positions, will eventually be translated into electronic communication processes. The present study is therefore based on the assumption that organizers of CoL need to be aware that existing social relationships can have a significant impact on conversational patterns within collaborative learning initiatives (e.g. Pemberton, Mavin, & Stalker, 2007). Moreover, our research builds upon the work of scholars like Zack and McKenney (1995), who called for new insights on how participants' differing background characteristics can affect their collaborative (learning) behaviour, and business thinkers like Gary Hamel (2008), who stressed that an organization's hierarchical structure influences the way people communicate with each other. Furthermore, our paper addresses the issue of hierarchical positions as a major obstacle to learning processes (Romme, 1996).

In addition to this particular gap in prior research, there are three main flaws that have been repeatedly criticized and which this study tries to overcome. First, previous studies have largely been conducted in a laboratory or face-to-face setting, which has raised the question of whether applicable findings might also be valid within a practical, online context, Consequently, more research is required that draws on data from, among others, factual learning programs in an organizational context that have been carried out in an online setting (Schippers, Den Hartog, Koopman, & Wienk, 2003). Similarly, communication processes that are researched in depth are not carried out in work settings, but in the context of education. Again, in order to draw conclusions from research for online, collaborative learning programs in organization, more studies are required to investigate whether the observations and findings from an educational context can be transferred to work settings (Volet, Vauras, Khosa, & Iiskala, 2013). Hence, previous studies lack the ability to provide more targeted insights and suggestions on how CoL can contribute to professional learning within organizations. Second, Akyol and Garrison (2011) criticized the widely used approach of assessing learning outcomes on the basis of attained summative grades. They argue that this type of measure neglects the underlying learning process and solely focuses on a single value to summarize whether an individual has learned something in the process of participating in a dedicated program. Instead, scholars should also include variables that allow to make inferences about how an individual has gone through the process of collaboratively learning in a CoL. More specifically. scholars like Veerman and Veldhuis-Diermanse (2001) and Schellens and Valcke (2005) have called for content coding procedures that provide valuable insights on how the type of communication within CoL develops over time. Third, only few studies have investigated how communication within online learning communities might change over time and whether observed patterns are robust or subject to fluctuations (Chang & Jacobs, 2012). Consequently, various scholars have repeatedly called for more longitudinal research (e.g. Haythornthwaite, 2001). The aim of this study is to contribute to our understanding of how CoL work in online training programs of (global) organizations and to answer the overarching research question:

What is the impact of individual's hierarchical positions on the type of communication within CoL?

More specifically, we address the following questions: Can we observe significant differences in the type of content that individuals from different hierarchical positions contribute to asynchronous discussion forums within CoL? Are there any changes over time? Does the type of content an individual contributes influence their network position within a CoL? In order to investigate these questions and address the identified shortcomings, the present article presents empirical evidence from 25 CoL which were part of an online training program that was provided for 249 staff members of a global organization. Each CoL was centred on asynchronous discussion forums, where participants from different hierarchical positions engaged into collaborative learning. By conducting a longitudinal study on the underlying type of communication, as well as the network positions of participants, we are able to provide valuable insights on patterns of communication within CoL. This in turn will help organizers to design collaborative activities that foster the active exchange of diverse insights and experiences nested in the members from all hierarchical positions.

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