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From practice to collaborative community in interdisciplinary research contexts



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ABSTRACT

This paper contributes to the debate on the dynamics of the development of practices and their relation to the emergence of collaborative communities of practitioners. Our research is situated in a university that was seeking to promote and stimulate interdisciplinary research collaborations through a number of initiatives. We are concerned both with characterizing the practices that make this kind of collaboration possible, and with the emergence of a community that creates and endorses such collaborative practices. Our findings provide insights in relation to two particular questions. First, we report on the development of interdisciplinary practices and the emergence of community, providing insights on how collaborative interdisciplinary work is accomplished in organizations in a repeatable and durable manner. Second, we consider how support interventions undertaken by the university stimulated the development of those practices. We develop theoretical and practical insights in these areas.

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1. Introduction

Work within contemporary organizations is increasingly enacted by interdisciplinary teams (Blackler and Regan, 2009; Czarniawska, 2004; Lindkvist, 2005; Nicolini et al., 2012). This is because collaboration across knowledge domains is recognized as a source of competitive advantage (Liedtka, 1999; Scarbrough and Swan, 2008) and a response to the complex demands of the modern world (Aram, 2004; Buanes and Jentoft, 2009; Huutoniemi et al., 2010; König et al., 2013; Van Rijnsoever and Hessels, 2011). Nevertheless a gap exists in our knowledge of how such collaborations are accomplished and the kinds of emergent organizational forms in which it occurs. We shall argue that such collaborations are underpinned by specific practices that lead to development of collaborative communities, and that this pattern of emergence can be supported by a range of initiatives. To demonstrate this, we take a Communities of Practice (CoP hereafter) perspective on the issue.

Both academic disciplines and professional groups within organizations have previously been conceptualized as CoPs in studies on knowledge development and sharing within and across such groups (e.g. see Becher and Trowler, 1989; Ferlie et al., 2005). While originally the CoP framework provided a useful explanation

of situated learning through socialization and legitimate peripheral participation (Brown and Duguid, 2001; Lave and Wenger, 1991), recent research has substantially extended the range and scope of practice-based studies (Blackler and Regan, 2009; Gherardi, 2009a; Miettinen et al., 2009; Nicolini, 2009). Despite the possible overgeneralization of CoP theories that could result (Amin and Roberts, 2008; Handley et al., 2006), we argue that this 'lens' provides a useful framework to explain the dynamics of the co-emergence of practices and communities within collaborative contexts.

CoP concepts help to illuminate how resources for organizing are marshalled and how participants make sense of their collective contexts (c.f. Brown and Duguid, 1991; Lave and Wenger, 1991; Wenger, 1998). In particular: communities are understood to provide the resources for organizing that support the 'foundings and failures of organizational forms' (Freeman and Audia, 2006, p. 145); and practices have been associated with the reproduction of organizational forms and sense-making within them (Bjørkeng et al., 2009; Gherardi, 2009b). But what supports sense-making in one community context produces confusion in another. Thus, while collaboration between communities can advance learning and innovation, differences between the practices of communities seeking to collaborate have been described as obstructing these outcomes (Duguid, 2005; Ferlie et al., 2005; Gertler, 2008; Nooteboom, 2008). Hence, understanding the dynamics and tensions underlying the development of new, shared practices that surmount barriers to learning and innovation in collaborative

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contexts is important. However, most studies of practice to date have focused largely on single, and usually pre-existing, communities and thus provide limited insight into what happens at the intersection of interacting communities.

Studies that have addressed inter-community engagements either focused on the use of boundary objects (Carlile, 2002; Sapsed and Salter, 2004; Wenger, 2000; see also Nicolini et al., 2012 for discussion on the use of boundary, epistemic and activity objects) or presumed that inter-CoP interactions are transient and purely project related (Blackler and Regan, 2009; Czarniawska, 2004; Ferlie et al., 2005; Lindkvist, 2005). For example, König et al. (2013, p. 266) suggest that the development of more enduring forms of organization is hindered by difficulties in maintaining an 'interdisciplinary culture'. These difficulties can partly be explained by the 'tribal' affiliations of researchers who resist abandoning their own disciplinary perspective resulting from years of commitment and experience (Ferlie et al., 2005; Gooch, 2005). Indeed, it can be argued that sustainable interdisciplinary engagements can be inhibited by commitments to existing practices and communities (c.f. Nicolini et al., 2012). These commitments lead to high levels of specialization in disciplinary CoPs and fragmented and only nominally 'interdisciplinary' research fields where genuine collaboration might otherwise exist (Morlacchi and Martin, 2009, p. 577; see also Martin, 2011).

Thus there is a need to understand how multiple disciplinary and professional groups may overcome the difficulties alluded to above, and how they develop collective capabilities and a sense of 'meta'community that can enable collaborative working in a sustainable manner (Engeström, 2006, 2005; Lyall and Meagher, 2012; Ynalvez and Shrum, 2009, p. 827). The (rather limited) evidence suggests that, first, collaborative engagements between established, epistemically dissimilar, communities are enabled by the development of shared (interdisciplinary) practices among participants and, second, may depend on the provision of appropriate long-term support (e.g. see Olsen, 2009; Palmer, 1999). These are the two key concerns of our research, leading to two main areas of contribution. First, we contribute to debate on the development of practices and the emergence of collaborative communities. Through research situated in an interdisciplinary research (IDR hereafter) context, we characterize three distinct sets of collaborative practices and describe how these practices contribute to the emergence and the endurance of collaborative community. Second, we consider the role of support interventions in facilitating the development of the collaborative practices that support community development. The remainder of this paper proceeds as follows. We begin by discussing the relevant literature on the emergence of practices and communities, with focus on IDR and the formation of interdisciplinary communities. We then provide methodological details and report our findings. The paper ends with discussion and conclusions, which provide insights for theory and may inform the design of future programmes to support the development of collaborative practices.

2. Practices, communities and collaborations

The extant literature suggests a chicken-and-egg relationship between the collectivity that forms at the boundary between established organizational structures in collaboration and the practices through which this boundary-spanning collectivity is coordinated (Kellogg, 2011; O'Mahony and Bechky, 2008). Thus the dynamics of the emergence of practices and community is still an important matter of debate that requires further attention. In line with our research objectives, we first discuss the issue of emergence of practices and communities, focusing on IDR, followed by a brief discussion on how the emergence of collaborative practices can be facilitated.

2.1. From practices to communities: The case of IDR

The majority of the extant literature is based on research situated either within pre-existing communities of practice or within pre-arranged forms of inter-community collaboration (Bjørkeng et al., 2009; Gherardi, 2009a; Lave and Wenger, 1991; Olsen, 2009), suggesting that the existence of some stable social structure has been assumed to be necessary for the maintenance or development of practices (Bjørkeng et al., 2009; Gherardi, 2009b). Consequently, there is little insight into the dynamics of the emergence of practices and communities when there is no pre-established community or project group. This means that there has also been no clear articulation of how (if at all) new, stable communities may arise from collaborations between different groups.

However, the literature has some potentially transferable insights about collaboration between communities. Perhaps the most useful insights come from research where disciplines or other professional groups (e.g. see Ferlie et al., 2005) have been conceptualized from the CoP perspective. As CoPs, disciplines are constituted by systems of social relationships and practices, which are developed through apprenticeship and participation (Lattuca, 2002; Lave and Wenger, 1991), and are cultural entities that shape the behaviours, systems of values and worldviews of their members (Buanes and Jentoft, 2009; Klein, 1990; Weingart and Stehr, 2000). These characteristics are distinctive differences that are particularly visible (and problematic) in collaborative contexts (Aram, 2004; Becher and Trowler, 1989; Haas and Park, 2010; Scarbrough and Swan, 2008). IDR, a context in which different disciplines work together despite such differences, can therefore provide a useful setting for the investigation of inter-community collaboration (e.g. see Jamali and Nicholas, 2010; Olsen, 2009).

Literature suggests that IDR (and other inter-CoP) collaborations are difficult to achieve and that they dissolve when organizational circumstances change (Lindkvist, 2005; Raasch et al., 2013). Such studies imply that stability is rarely achieved (Nicolini, 2011), making this form of collaboration difficult to sustain. Partly difficulties are associated with the differences between the practices and systems of values endorsed by different disciplines (see Dougherty, 1992; Ferlie et al., 2005; Finkenthal, 2001; Scarbrough and Swan, 2008). While some authors suggest that the creation and maintenance of an interdisciplinary culture is therefore crucial for success in interdisciplinary collaborative projects (König et al., 2013; Pickett et al., 1999), the concept of 'interdisciplinary culture' shared among IDR participants remains vague. An alternative focus, on the necessary learning processes that need to take place for individuals to be able to successfully pursue IDR, has sidestepped the culture issue (Lattuca, 2002; Lyall and Meagher, 2012) through focussing on IDR-specific skills (Jeffrey, 2003; Klein, 1990; Welsh et al., 2006) and practices (Jamali and Nicholas, 2010; Olsen, 2009).

It has also been suggested that transformations associated with new, distinct collaborative norms could be transmitted through the socialization systems of collaborative communities (Adler et al., 2008; Olsen, 2009) and that practices are involved in the generation of community (Bjørkeng et al., 2009; Gherardi, 2009a,b; Nicolini, 2011). But this brings us to the chicken-and-egg relationship of practice and community, since emergent collaborative practices do not 'belong' to any pre-existing stable community. This suggests that successful IDR collaborations are reliant on the emergence of specific practices, and that these practices are somehow recognized by participants as being of value without the legitimating authority of a stable community. But this does not avoid the implication that enduring IDR collaborations involve the formation of a community that endorses such practices. Thus the first focus of our research is concerned with what constitutes the collaborative 'practices of community' (c.f. Gherardi, 2009a, p. 121): what they might be, how they are manifested and how they might potentiate the emergence

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