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Mushrooming entrepreneurship: The dynamic geography of enthusiast-driven innovation

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ABSTRACT

Communities of interest encompassing manifold sophisticated users, highly skilled enthusiasts and dedicated hobbyists are increasingly being taken seriously by economic geographers as sources of innovation. The article applies a time-spatial approach to empirically access the process through which entrepreneurial activities arise and proliferate within such communities. In a qualitative ex-post analysis of two case studies of evolving communities of interest – geocaching and fingerboarding – the article will trace how the social composition of these communities changed over time and how entrepreneurial ambition co-evolved with these changes. Particular emphasis will be put on the tensions between the communities' norms of sharing knowledge freely among peers and the entrepreneurial logic of monopolizing knowledge. Moreover, the interplay between community evolution and entrepreneurial moves offers a fresh view on the complex and dynamic spatiality of innovation.

Introduction

In recent years economic geography has become increasingly interested in entrepreneurial dynamics driven by users and customers. This interest goes beyond individual "lead users" (von Hippel, 1986), "sophisticated customers" (Porter, 1998) or focus groups of clients contributing critically to firm-based innovation processes. More intriguing are innovating "communities of interests" (Fetzer, 2010) that spur entrepreneurial dynamics without being orchestrated professionally by profit-oriented organizations (Grabher et al., 2008). A community of interest can be defined as a group of individuals, who share enthusiasm about a particular concern or topic and/or who are strongly affected by a particular problem. Communities of interest encompass mainly lay persons, users or hobbyists but also idealistic professionals who have a deep interest in the shared practice. The known empirical examples demonstrate that such communities of interest can, at least initially, evolve independently from or even in competition with firms (Grabher and Ibert, 2014). Yet, despite the absence of profit-orientation, such communities often come up with innovative solutions or products. If some of the community members found their own firms, communities of interest can even create 'real' economic growth, measurable in terms of new jobs or commercial profit.

We argue that such innovation processes are more common than one might think and that many enterprises – even whole commercial fields – are rooted in interaction between members of communities of interest. As a popular example, Steve Wozniak and Steve Jobs participated in the "Homebrew Computer Club", an informal group of computer enthusiasts that can be regarded as the starting point for the development of the "Apple 1" in 1975 (Isaacson, 2011). In her pioneering book "Regional Advantage" Saxenian refers to this club as a part of the non-hierarchical culture in the Silicon Valley and as the starting point of "more than twenty computer companies, including Apple Computer" (1994, p. 34). The motivation behind this paper is to explore the social, cognitive and spatial dynamics that lead to entrepreneurial moves from within such communities of interest. More particularly, we address two issues that are unresolved in the present literature.

The first contribution we wish to make is to improve understanding of the social dynamics that lead to entrepreneurial moves from within communities of interest. Entrepreneurial ventures are all but self-evident outcomes of social interaction in the context of communities of interest. One might even think that the internal logics that drive communities of interest and commercially successful firms are to a large degree contradictory. While communities are associated with features like intrinsic motivation, voluntary work and free sharing of knowledge, entrepreneurship

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rests on a monopolization of knowledge and is mainly driven by monetary incentives. Yet there is enough empirical evidence that user-driven entrepreneurship happens very frequently (Agarwal and Shah, 2014). Against the background of such paradoxes we ask why and how firms are established within communities of interest. How are firms related to the communities they emerge from and how do they transform these communities?

Unlike the historical example from Silicon Valley mentioned above, many, if not all more recent examples of enthusiast-driven innovation highlight that knowledge sharing within communities of interest relies to a significant extent on the technical affordances provided by the Internet. This close association is not only apparent in innovation processes in software development, such as in cases of open source software projects or co-developed video games (Jeppesen and Molin, 2003), but also for more 'material' examples, like sports equipment, furniture hacking or photography (von Hippel, 2005; Grabher and Ibert, 2014). Communities of interest are narrowly focused in terms of the topic but widely open in their spatial reach (Haythornthwaite, 2002). The resulting spatiality of innovation is fascinating and at the same time challenging for geographical analysis. Regional concentrations of firms and actors are, of course, still possible, yet, less probable results of the underlying knowledge dynamics. As we will show in this article, entrepreneurship from within communities on the one hand depends on shared knowledge practices. On the other hand, however, in the age of the Internet it is likely to bring about fragmented spatial patterns of related activities and of firm formation (Geoghegan, 2013; Grabher and Ibert, 2014). As our second contribution, in this paper we seek to develop an elaborated understanding of the complexities of the relational spaces enacted by entrepreneurial ambitions from within communities of interest. In what spatial constellations do entrepreneurial activities arise? And what spatial dynamics are enacted by entrepreneurship arising from interest communities?

We propose a dynamic, time-spatial approach to address these challenges. We prefer a *dynamic approach* over a static one as the latter seems to be confined to stating contradictions – between sharing and monopolizing, intrinsic and extrinsic motivations, private enthusiasm and professional business. Our purpose, in contrast, is to understand how and why entrepreneurship emerges from within a community of enthusiasts and how the involved participants deal with such contradictive demands. We thus distinguish between three phases: tinkering, structuration and diversification and ask how the relationships between the evolving community and emerging firms change over time.

Furthermore, we propose a *time-spatial analysis* of the respective innovation processes to more effectively grasp the related geographies. A territorial approach would be insufficient to understand a spatiality that encompasses localities that may be spread across the globe. We thus focus on processes on two analytical levels: the evolution of the community and the dynamics of firm-foundation. This allows us to draw connections between sites of knowledge creation that are separated in physical space but related due to shared knowledge practices. We use a metaphor from mycology[1] to assess the connections between both levels. In the evolution of mushroom populations one can observe that fruiting bodies are spread in irregular patterns across a wider territory but are nourished by the same, far reaching mycelium proliferating in the ground. Analogous to this, the entrepreneurial activities we are interested in also rely on an increasingly dense meshwork of spatially distributed practitioners. At the same time practitioners generate entrepreneurial opportunities by blending the shared knowledge of the community with locally accessible resources. As a result, entrepreneurial opportunities that might lead to the formation of firms arise at manifold localities. Empirically, this paper presents two qualitative case studies of communities of interest: fingerboarding and geocaching.

After further elaborating the conceptual framework of our analysis (Section 'Enthusiast-driven innovation: exploring "accidents"'), we briefly outline our strategy for case selection and explain our methodological approach (Section 'Research design'). In Section 'Mushrooming entrepreneurship' we present our empirical findings. It is subdivided into three sub-sections, each concentrated on a single stage of the community's development ('tinkering', 'structuration', 'diversification'). We conclude by summing up key findings and elaborating perspectives for further research (Section 'Conclusions').

Enthusiast-driven innovation: exploring "accidents"

A community of interest can be theorized as a particular form of a "community of practice". A community of practice can broadly be defined as a social entity encompassing people who participate in the same practice and follow common rules when performing this practice (Lave and Wenger, 1991; Wenger, 1998; Brown and Duguid, 1991, 2001; Amin and Roberts, 2008). Lave and Wenger introduced the concept for showing how individuals become interrelated to other practitioners and to the world through participation in social practice (1991). By integrating newcomers into existing communities of practice that are guided by experienced members who share their expertise freely, communities of practice represent social entities of learning and provide mechanisms of socialization and identity building (Lave and Wenger, 1991; Djelic and Quack, 2010).

Communities of interest constitute themselves around an increased enthusiasm for particular objects, topics, styles or activities (Fetzer, 2010; Geoghegan, 2013). The focal interest can also be shared anger about restrictions imposed by society or society's neglect of certain problems (e.g., rare diseases). Both motivations can come together, as in the case of handicapped sports (Franke and Shah, 2003). Apart from the shared enthusiasm for one topic, communities of interest can be heterogeneous in terms of professional backgrounds, training, income or social status. They are described as un-professional as members make a point of the circumstance that their own, particular perception is neglected notoriously in given institutional and organizational contexts (Müller and Ibert, 2014). Given the potential diversity of backgrounds of members, communities often include professional or quasi-professional expertise from adjacent fields (Grabher and Ibert, 2014).

The term community is frequently used normatively. It is applied, for instance, to conceptions of *alternative* – non-capitalistic – economies (e.g., Gibson-Graham, 2006). There are indisputable commonalities to the approach presented in this paper since we agree that communities of interest might challenge established systems, particularly in terms of knowledge protection (see Leyshon, 2003). Furthermore, they represent economic structures in which participation is not primarily driven by motives of monetary profit. However, we neither consider them *per se* as being non-capitalist nor do we assume that they will automatically democratize innovation (von Hippel, 2005). Rather, we wish to highlight that communities of practice are integral parts of social life in modern societies (Djelic and Quack, 2010) and thus reflect the same contradictions that are inherent to the economic and political systems they are embedded in.

Communities of interest and innovation

Even though communities of practice are by definition dynamic and transformative, in their preliminary understanding they have

[1] Special thanks are due to our colleague Felix C. Müller with whom we discussed first the idea of using this metaphor to better understand processes of spatially distributed knowledge practices.

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