

Industry and Innovation

Special Issue Call for Papers

Rethinking the role of networks in territorial innovation models

Guest editors

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Background and Objective

The special issue aims to collect several papers that deal with the role of networks and inter-organizational interactions in territorial innovation systems, such as clusters, industrial districts, and regional innovation systems. The issue has a focus on novel empirical approaches and methodologies helping to understand the roles knowledge networks play for the dynamics of territorial innovation models (Saxenian, 1994; Sorensen and Stuart, 2001; Tallman et al., 2004). Traditionally, such models are characterized as geographic concentration of knowledge flows being supported by local informal interaction and ideas in the air (Marshall, 1920). However, this conception has been recently criticized, asserting that the contribution of the local industrial atmosphere has been overrated (Fitjar and Rodriguez Pose, 2016). Valuable and strategic knowledge is not ubiquitous and available to all firms in a geographic concentration, but it is rather diffused in knowledge networks of hierarchical structure (Bell and Giuliani, 2005). The position of the firm in the network is then crucial since it allows for accessing strategic knowledge (Zaheer and Bell, 2005).

Despite the fact that a rich literature on inter-organizational collaborations analyses geographical proximity and spatial innovation process, there are still significant research gaps. Most contributions consider formal relationships, such as R&D partnerships (D'Este et al., 2012; Capaldo and Petruzzelli, 2014; Broekel, 2015; Lazzeretti and Capone, 2016), EU projects (Autant-Bernard et al., 2007; Balland, 2012; Balland et al., 2013; etc.), patents (Ter Wal, 2014) or publications (De Stefano and Zaccarin, 2013). However, formal relationships only partially reflect knowledge flows within territorial innovation systems. Such neglects the role of social ties as well as personal bonds for innovation process (Rutten et al., 2014). It also contrasts the

fact that since Granovetter's (1973) work, the social context in which people and firms are embedded has been emphasized (e.g., Broekel and Boschma, 2012; Crescenzi et al., 2016; Balland et al., 2016). In addition to novel methods and empirical approaches, this special issue seeks to explore the importance of social ties for innovation in order to rethink the role of (formal and informal) networks in clusters and other territorial innovation models.

Such kinds of informal, social relations are still under-researched due to the difficulty of collecting data (Capone and Lazzeretti, 2018). While there are some works studying informal relationships (Dahl and Pedersen, 2004; Allen et al., 2007; Salavisa et al., 2012; etc.), most authors investigate formal and informal relationship separately. In fact, few contributions have attempted to analyse the influence of the co-evolution of multiple (formal and informal) relationships on innovation (Ferriani et al., 2012; Zappa and Robins, 2016; Capone and Lazzeretti, 2018). The simultaneous consideration of multiple types of relationships seems to be particularly interesting, thanks to recent advancements of statistical methodologies permitting the quantitative analysis of multilevel (relationships) networks and multiplexity (Snijders et al., 2013; Wang et al., 2013; Lazega and Snijders, 2015).

However, the quantitative approach presents some limitations in measuring informal relationship and social ties. The special issue, in fact, welcomes also qualitative researches in order to investigate the role of social ties, kinship, and trust in innovation and business collaborations in territorial innovation models.

Economic geographers and regional scientists have realized interesting works focusing on social dynamics of innovation networks (Rutten et al., 2014). Within a territorial perspective, they investigate the embeddedness (Uzzi, 1997) of the social dynamics of innovation networks. Their emphasis is rooted in understandings of innovation as more than a purely mechanical economic set of transactions; but, a social process with unpredictable spill-overs and externalities (Lagendijk, 2007). In addition, Andersson and Klaesson (2014) conduct an empirical analysis of the cluster in Gnosjö region in Sweden in order to explain that high level of innovation is not captured with traditional indicators of innovation; but, it is a consequence of regional embeddedness. Livi et al. (2014) analyze innovation results from complex social interactions in the case study of the Western Switzerland photovoltaic industry. They demonstrate how the economic value of knowledge, innovation, and creativity builds upon complex market-based social networks. Werker et al. (2013) adopt a multiple-case design and focus on researchers working at the three Dutch universities of technology. They show that personal proximity—close similarity in terms of personal traits and behavioral patterns—substantially affects the whole life cycle of research collaborations. Finally, the role of formal and informal inter-organizational collaboration may also change according to cluster evolution (Hassink, 2016; Fornahl et al., 2010).

In this context, longitudinal and multiple case study analysis is particularly appreciated (Dawson, 2013; Stake, 2013), as they allow to analyze the data within each situation and across different situations and understand the similarities and differences between the cases and their evolution (Gong and Hassink, 2018).

Research Topics

In this vein, the special issue welcomes qualitative and quantitative articles, analyzing the role of formal and informal relationships in clusters and other territorial innovation models, focusing in particular on social ties and on network structure, evolution, co-evolution, and longitudinal change. The application of novel methodologies in quantitative research is appreciated (SAOM, T/ERGM, CONDOR, etc.).

In the spirit of development of new approaches and empirical methodologies, possible themes for contributions include (but are not confined to):

- What is the role of informal relationships and social ties in territorial innovation models?
- Which are the main determinants to establish informal and social ties?
- How do informal and social ties in territorial innovation models change over time?
- How do formal and informal relationships co-evolve in time and space?
- How to measure the coevolution of different relationships?
- How to analyze the influence of the co-evolution of multiple (formal and informal) relationships on innovation?
- Which are the determinants of tie formation and dissolution for formal and informal relationships?
- How does knowledge flow in multiple network relationships is affected by closed geographical context?
- Which are the negative effects of multiplexity on innovation?
- How does knowledge flow change and evolve in time and space?

Important deadlines

- Submissions to the Special Issue due by **15 September 2019**
- Publication of the Special Issue in **2021**

Related events

The issue is connected to two international conferences on “Rethinking Clusters”. The first one held at the University of Florence, 3-4 May 2018, and the second one to be held at the University of Padua, 15-17 May 2019. Please consult: www.rethinkingclusters.org

Submission Process

Paper submissions will undergo rigorous editorial screening and double-blind peer review by a minimum of two recognized scholars. The standard requirements of *Industry and Innovation* for submissions apply. Please consult the journal submission guidelines available at <http://www.industryandinnovation.net>.

Essential references

- Boschma, R. (2005). Proximity and innovation: a critical assessment. *Regional studies*, 39(1), 61-74.
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- Broekel, T., & Hartog, M. (2013). Explaining the structure of inter-organizational networks using exponential random graph models. *Industry and Innovation*, 20(3), 277-295.
- Calignano, G., & Hassink, R. (2016). Increasing innovativeness of SMEs in peripheral areas through international networks? The case of Southern Italy. *Region*, 3(1), 25-42.
- Capone, F., & Lazzeretti, L. (2018). The different roles of proximity in multiple informal network relationships: evidence from the cluster of high technology applied to cultural goods in Tuscany. *Industry and Innovation*, 25(9), 897-917.
- Lazzeretti, L., & Capone, F. (2016). How proximity matters in innovation networks dynamics along the cluster evolution. A study of the high technology applied to cultural goods. *Journal of Business Research*, 69(12), 5855-5865.
- Gong, H., & Hassink, R. (2018). Co-evolution in contemporary economic geography: towards a theoretical framework. *Regional Studies*, 1-12.