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Anatomy of a techno-creative community: the role of places and events in the emergence of projection mapping in Nantes

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As the literature on clusters developed in the early 2000s, cities stepped into these strategies to develop their economies (Gong & Hassink, 2017). In many cases, clusters have been designed with a logic of specialization, particularly around cultural or digital sectors, as it would spur innovation (Lazzeretti et al., 2017). The knowledge used and combined by the actors belongs to distinct bases, reflecting different types of activities (Asheim, 2007; Davids & Frenken, 2018) However, cross-specialization is now seen as an important source of differentiation (Janssen & Frenken, 2019). The idea behind is based on the hypothesis of cross-fertilization between these two fields, whose knowledge would be related and therefore easy to combine, or at least would be complementary (Frenken et al., 2007; Asheim & Hansen, 2009). It would also lead to sustainable differentiation for local economies. Nevertheless, the co-location of these activities does not necessarily imply innovation dynamics at the intersection of synthetic and symbolic knowledge bases – techno-creative innovations. Moreover, it would seem that this type of context favors innovation, but micro-level analyses are lacking to understand the additive effects of co-presence and further explain how do innovations at the intersection of STEM and Arts do emerge (Rodríguez-Pose & Lee, 2020). The aim of this paper is to better understand what roles places and events play in the emergence of an epistemic community dedicated to a techno-creative innovation?

This work is based on the idea that epistemic communities evolve in knowledge domains where they create, share and codify new knowledge (Haas, 1992; Cohendet et al., 2014; Capdevila et al., 2018). Those that evolve in a field of digital technologies produce certain types of knowledge

(related to analytical or synthetic basis), and that others evolving in an artistic/cultural field create other knowledge (related to symbolic basis) (Asheim, *op.cit*; Asheim & Hansen, *op.cit*). Therefore, the question of intermediation becomes central to foster collaborations between these actors and innovations at the intersection of these domains. We focus on places and events, whose specific configurations can turn them into meeting spaces where social networks are formed (Cohendet et al., 2010). They also participate in the diffusion of innovations and the configuration of shared visions (Lange et al., 2014). More broadly, they create and/or allow the exchange of social, cognitive, economic and symbolic resources. In the same vein, certain actors who have the capacity to link two distinct networks (*brokers*) can also be at the heart of intermediation dynamics (Foster & Ocejo, 2013; Sgourev, 2015).

Our empirical approach is based on in-depth case study of projection mapping in Nantes (France), a territory where artistic/cultural activities and digital technologies (mainly software development and IS management) are present. We focused on projection-mapping, which fits to our perspective as it combines an artistic dimension with technological tools. This practice can be defined as the projection of still or moving images on volumes (walls, sculpture, screen...) using videoprojectors and dedicated software. We use semi-directive interviews and network analysis to better understand the foundations of the collective dynamics at the heart of the innovation process.

The results show a fragmentation of the community into three different subgroups. This reveals that the practice seems to be emerging in this territory, and the situation calls for action to bridge the gap between these groups to facilitate collaborations. To be more precise, each subgroup has with a different understanding of projection-mapping and a more or less deep mastery of technological tools. Therefore, a form of ambiguity distinguishes the approaches and participates in their distinction (Sgourev, 2013). Among the places and events identified, some are only frequented by certain actors belonging to the same group. Others are frequented by actors belonging to different groups and can play a catalyst role. More precisely, we have identified different functions according to the type of place or event, which depend on the position of the actors within the network and their activity. Finally, we have identified two actors whose position and activity lead us to believe that they have a broker role. Our paper therefore questions the logic of clustering, and what geographical proximity really brings for innovations between arts and technologies.

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