

Mapping, Analysing and Designing Innovation Ecosystems in Cities: An Action Research Approach

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Agradecimento à orgão de fomento:

"This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001"

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Introdução

Innovation ecosystems (IE) in cities have been recognized as a critical force behind regional development (Audretsch & Belitski, 2016). Hence, fostering IEs has been a priority for the development of cities and drives significant policy and program activities. In this paper, we argue that the first steps for the evolution of an IE are the engagement of the quadruple helix actors and the mapping of the IE, focusing on identifying the local challenges and making the IE able to generate and deliver value to all of its stakeholders.

Problema de Pesquisa e Objetivo

Problem: At the same time that ecosystems emerge and scale-up, it calls for a diagnosis of the current situation, challenges to overcome, and projects to improve their performance. However, there is not a cohesive or systematic approach on how to map and nurture IEs for their emergence and neither explicit directions to engage and enable collaboration among the quadruple helix actors. Hence, we identified a gap in the literature regarding this process. **Objective:** To propose and apply a method for map, analysis, and design IEs in cities through the engagement of quadruple helix actors.

Fundamentação Teórica

Innovation Ecosystems: Innovation plays a major role in fostering economic development (Schumpeter, 1985) and is one possible outcome of the interaction of co-creative and interdependent actors from the quadruple helix - academia, government, companies, and society - arranged in apparently non-hierarchical networks within an open and dynamic environment, which we call Innovation Ecosystem. **Map, Analyse and Design Innovation Ecosystems:** To effectively map, analyze and design IEs, there is a need for a holistic approach, which we can achieve with Indicators, Action Research and Design Thinking.

Metodologia

We collected indicators and employed the Action Research (AR) approach, alongside Design Thinking, in five workshops in which participated 135 people from the quadruple helix in the ecosystem of Porto Alegre, Brazil, to propose and apply a method for map, analyze, and design innovation ecosystems in cities through the engagement of the quadruple helix actors. Since action research can produce theoretical insights and changes in practice, we believe this is the most suitable approach to ground our research and engage people in co-creation processes.

Análise dos Resultados

The indicators provided guidance for what were the relevant issues to consider, and the workshops encouraging a multilateral collaboration among the actors were crucial to achieving the level of engagement necessary to produce innovation (Provan, Fish & Sydow, 2007). Both the action research and the Design Thinking oriented activities helped the researchers to conduct the co-creation processes considering the intended impact on society and also stimulated the participating actors in taking a systematic and not just an individualistic view of their roles.

Conclusão

In this paper, we proposed and applied a method for map, analyze, and design innovation ecosystem from the engagement and collaboration among actors. The mapping through the engagement of actors is a starting point for a more developed ecosystem. In this study, it was possible to notice how cocreation processes can be fostered by applying the action research approach alongside Design Thinking strategies for the mapping of the innovation ecosystem.

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