

Digital Entrepreneurial Ecosystems: A Systematic Literature Review

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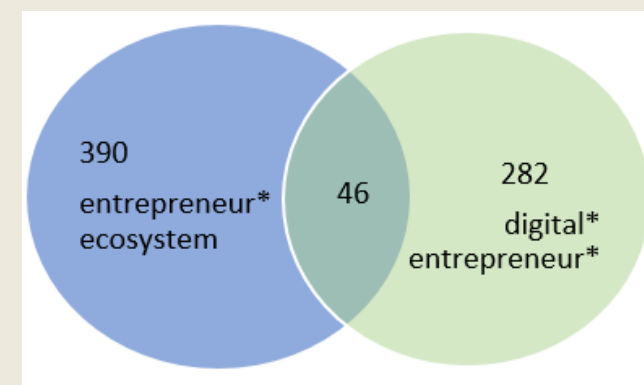
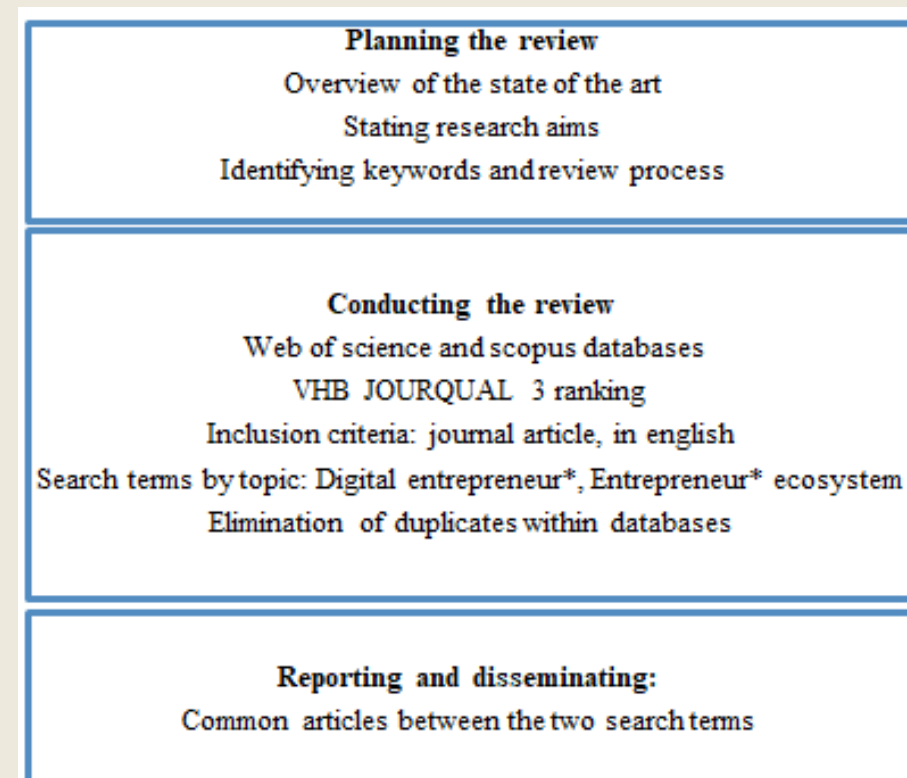
Background

With the aim of understanding entrepreneurship holistically, studying entrepreneurial ecosystems (EEs) has emerged as a promising area of research. In addition to placing the entrepreneur rather than the incumbent firm at the center of the investigation the EE approach considers the broader entrepreneurial context within which entrepreneurship takes place, and examines wide-ranging socioeconomic, technological, and cultural dimensions. While the literature on EEs has focused on the spatial dimensions, emphasizing the relevance of regional proximity, it is imperative to consider also the technological context, prompted by digitalization. By transforming the nature of processes and outcomes in entrepreneurship, digital technologies endorse a reconsideration of entrepreneurial activities. Moreover, digitalization has changed the locus of entrepreneurial opportunities and practices, and hence the dynamics in EEs, suggesting the need to explore digital entrepreneurial ecosystems (DEEs).

Objectives

There exists ambiguity in this relevant field of DEE, creating a gap in our systemic understanding of entrepreneurship in the digital age. In order to advance our knowledge on DEEs, it is necessary to look at adjacent literature streams which have considered on the one hand the effect of digitalization on entrepreneurship, and on the other hand the nature of ecosystems in a digital context. This study aims to consolidate and enrich the literature on DEEs by providing a solid scientific foundation of what characterizes DEEs, how DEEs differ from EEs, and which added value the concept of DEE offers.

Methodology



Future Research Avenues

DEE Attributes	Exemplary Questions
Governance	<ul style="list-style-type: none"> What constitutes DEE management? How does decision making vary with different DEE governance structures?
Actors	<ul style="list-style-type: none"> How is power distributed among the different actors in a DEE? What roles and motivations do actors have in a DEE?
Resources	<ul style="list-style-type: none"> How do the resources in a DEE support the development of individual entrepreneur competencies? What mechanisms ensure the access and distribution of resources within members of a DEE?
Architecture	<ul style="list-style-type: none"> Which architecture favors a more effective development of DEEs and how can this be designed? How can entrepreneurs deal with vulnerabilities that could arise from the openness or modularity of a DEE?
Complementarity	<ul style="list-style-type: none"> In what ways do the resulting complementarities extend the functionality of DEEs? What approach can be used to trace the complementarities within a DEE?
Reach	<ul style="list-style-type: none"> How do the open boundaries in a DEE shape the nature of collaboration and competition within the ecosystem? How can the performance of a DEE be measured across (geographical/industry/firm) boundaries?
Identification Process	<ul style="list-style-type: none"> How do the different identification processes affect the formation of regulations, norms and culture in a DEE? In what ways is the identity of a DEE visible?

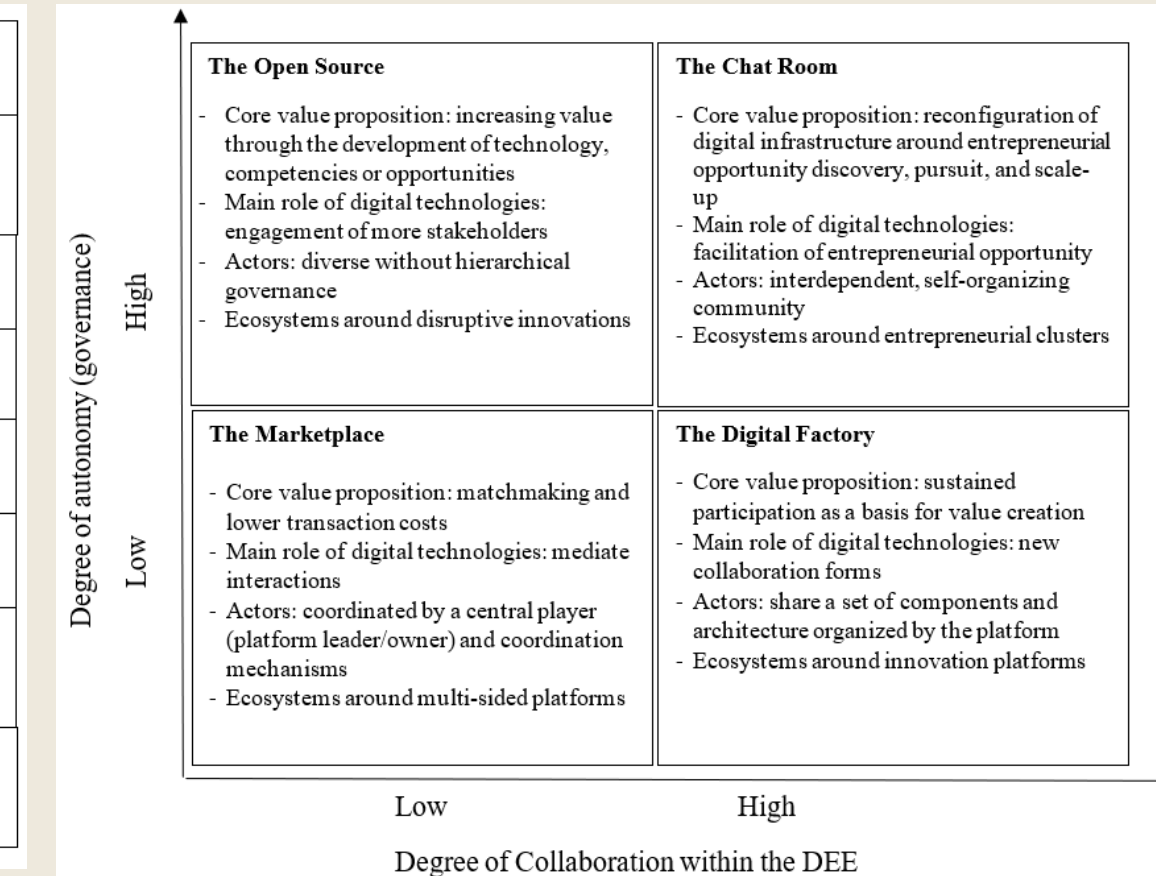
Results

Acknowledging the uniqueness and distinctive peculiarities of ecosystems, we suggest that there is neither a one-size-fits-all approach to DEEs, nor a single set of characteristics. Hence, we propose a conceptual framework presenting a set of characterizations corresponding to principal ecosystem attributes which are useful to understand DEEs. We argue that by offering a range of characteristics, our framework provides an inclusive picture of the different possible types of DEEs. Furthermore, by juxtaposing two dimensions, a two-by-two typology showing four forms of DEE arises. The typology does not suggest that there are only four kinds of DEEs, however the dimensions deem as endpoints, providing a range within which DEEs could be clustered

DEE Conceptual Framework

Ecosystem Attributes	Characterizations			
Governance	Self-organized (without a controlling entity)	Distributed (agency among several members)	Less predefined (undetermined)	Platform owned (leader and regulator)
Actors	Aligned (central value proposition)	Mutually dependent (co-specialization)	Autonomous (no hierarchical structure)	
Resources	Shared (generic knowledge base)	Allocated (mediated by institutions)		Integrated (heterogenous resources and actors)
Architecture	Modular (flexibility in resource use)		Structural openness (ease of entry to the ecosystem)	
Complementarity	Offerings (products or services)	Resources (technologies and knowledge)	Actors (roles and activities)	
Reach	Across geographical borders (geographically dispersed)	Cross-sector (across industries)	Beyond organizational boundaries (interfirm collaboration)	
Identification Process	Ecosystem identity (system-level goal)	Founder-based identity (influenced by the entrepreneur)	Platform identity (platform rules and structure)	No fixed identity (resources rather than identity as foundation)

DEE Typology



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