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Understanding Entrepreneurial Legitimacy in the digital space: The Where, The Who and The How

Lizbeth Elaine Arroyo Carrasco

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PhD in Business | Lizbeth E. Arroyo Carrasco

2022



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Thesis title:

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*In honour of the memory of Professor Alistair
Anderson.*

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Chapter 1: Introduction

1.1 Problem statement and the objectives of the research

The Industry 4.0 revolution is undergoing a profound transformation due to the unstoppable digitalization¹ of our society. This historic dynamic is characterised by hyperconnectivity, where the technosphere, the natural world, and the human world are interconnected (Park, 2018).

As a result, entrepreneurship as a social, temporal, and spatial process (Anderson, Warren and Bensemann, 2019; Wadhvani *et al.*, 2020) is being challenged by new generations of entrepreneurs who are disrupting markets with their digital business models based on more incremental technological innovations (Obschonka and Audretsch, 2020).

Digital entrepreneurship emerges as a phenomenon in which new digital artefacts, platforms, and infrastructures are used to pursue innovative and entrepreneurial opportunities (Davidson & Vaast 2010; Nambisan 2016). It is defined as the sale of digital products or services over electronic networks, assuming that some or all of what would be physical in a traditional business has been digitised (Kraus *et al.*, 2019).

By this definition, the foundations of entrepreneurship need to be rethought (Dodd, Anderson and Jack, 2021; Welter and Baker, 2021). The academic community is called upon to interrogate the new horizons of entrepreneurship that emerge from technological advances. Importantly, we need to address the important implications of digitization for critical processes for entrepreneurship, such as legitimacy.

In entrepreneurship, legitimacy is widely associated with entrepreneurial success in terms of acquiring resources from the context for survival and growth purposes (Zimmerman and Zeitz, 2002; Shepherd and Zacharakis, 2003; De Clercq and Voronov, 2009; Überbacher, 2014; Lent *et al.*, 2019). The definition

¹ Digitalization is a socio- technological process of applying digitization techniques to broader social and institutional contexts that render digital technologies infrastructure (Tilson, Lyytinen and Sørensen, 2010, p.2)(Tilson, Lyytinen and Sørensen, 2010)

of entrepreneurial legitimacy is based on Suchman's seminar work. He stated that legitimacy is “a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p.574).

In the entrepreneurship literature, there are two important types of legitimacy— institutional and strategic traditions. Institutional legitimacy emphasises the influence of external pressures on social actors [entrepreneurs] to comply with regulations, legal pressures, or values and expectations of their operating context (Lent et al. 2019; Suchman 1995; Überbacher 2014; DiMaggio and Powell 1983; Scott 2014. Strategic legitimacy is a managerial tool for pursuing organisational goals [acquiring resources] through the manipulation and use of suggestive symbols to gain social support (Suchman 1995; Lent et al. 2019; Zimmerman and Zeitz 2002).

Recent studies on entrepreneurial legitimacy mainly assume an integrative framework(Suchman, 1995; Lent *et al.*, 2019). A good example is the work of De Clercq and Voronov (2008), whose claim that legitimacy in entrepreneurship should take into account the essence of entrepreneurial behaviour: Innovation and change. Legitimacy should thus be linked not only to the ability of entrepreneurs to adhere to existing institutional arrangements (institutional legitimacy), but also to the ability to convey that they are innovators or change agents (strategic legitimacy) (De Clercq and Voronov, 2009).

This approach to legitimacy suggests that the acquisition of resources depends on where is "entrepreneurial", who and how it does (Fisher, Lahiri and Kotha, 2016; Fisher *et al.*, 2017); it is less clear whether *we can understand legitimacy for digital entrepreneurship* in light of this::

- i. *Our understanding of the context of digital entrepreneurship is still in its infancy.* The context of digital entrepreneurship is characterised by a less bounded, flexible and fluid space (Nambisan, 2017), where the absence of place-based institutions poses a real challenge to entrepreneurial success. The influence of context on entrepreneurship is widely recognised as key to understanding when, how and why entrepreneurship occurs and who is involved (Welter, 2011; Anderson, Warren and Bensemann, 2019). However, little attention has been paid to exploring the complex spatial-institutional nature of digital space, making it difficult to

understand how digital entrepreneurial practices and interactions play out.

- ii. *We have made assumptions about what the expectations of appropriate entrepreneurship are.* Until now, the legitimised figure of the entrepreneur has been rooted in neoliberal ideology. It promotes the empowerment of people to embrace the entrepreneurial promises of freedom and flexibility, improvement of socio-economic circumstances (Ogbor, 2000; da Costa and Saraiva, 2012; Scharff, 2016; Nicholls and Teasdale, 2017) through the creation of new opportunities and the implementation of new concepts in an uncertain and unknowable environment (Kuratko and Morris, 2018). Authentic neoliberal entrepreneurs are seen as heroes who are motivated by their ability to take risks, challenge circumstances through a positive attitude, and emphasise their individuality (Anderson and Warren, 2011; Hytti and Heinonen, 2013; Scharff, 2016)

Based on these assumptions, *this thesis aims to investigate the legitimacy of digital entrepreneurship.* To achieve this further, we pursue three specific objectives:

- i. *To examine 'where' digital entrepreneurship takes place,* we mean to map the ideology of digital entrepreneurship by examining the values embedded in entrepreneurial discourses.
- ii. *To develop our account of 'who' an entrepreneur should be in the digital;* this means analysing (1) the hegemony of neoliberal discourse versus other emerging discourses and (2) the differences within each entrepreneurial discourse (neoliberal/emerging) in different contexts.
- iii. *To explore "how" legitimacy works in digital entrepreneurship;* we mean to understand the legitimacy of AI-startups. We explore how ethical principles relate to AI-startups' pursuit of legitimacy for their technological developments.

1.2 Theoretical framework

In line with other authors, we understand legitimacy in entrepreneurship as a socially embedded process for securing the acquisition of resources (Zimmerman and Zeitz, 2002; Zott and Huy, 2007; De Clercq and Voronov, 2009). However, our focus is on explaining the legitimacy of digital entrepreneurship as the interplay between entrepreneurs and the digital context (Fisher, Kotha and Lahiri, 2013; Fisher *et al.*, 2017; Anderson, Warren and Bensemann, 2019).

Digital entrepreneurship needs to (1) incorporate themes at multiple or cross-cutting levels of analysis and (2) encompass ideas and concepts from multiple fields/disciplines (Nambisan, Wright and Feldman, 2019). We believe that the theory of ideology (Van Dijk, 2001; van Dijk, 2006) offers powerful theoretical elements for observing the legitimacy of digital entrepreneurship.

Van Dijk defines ideology as "foundational beliefs that underlie the shared social representations of specific social groups. These representations are, in turn, the basis of discourse and other social practices. It has also been assumed that ideologies are largely expressed and acquired by discourse" (van Dijk 2006, p.121). In other words, ideology involves 'qualities' that are valued in society; values are the meanings assigned to the digital context that determine what is appropriate (Anderson and Smith, 2007). Ideology defines entrepreneurship and entrepreneurs.

In this sense, our approach is underpinned by the following assumptions::

- i. **THE WHERE:** Dood, Anderson, and Jack (2021, p.8) point out that "if institutions are socially constructed, they form and are formed by ideology, an ideology centred on values." Then for us, ideology in entrepreneurship, though, is "a system of belief that shapes behaviour individually and collectively" (Johannisson and Huse, 2000; Davidson, 2014). It serves the social function of defining norms and values that are expressed, enacted, and reproduced through discourses of entrepreneurship worldview (Smith and Anderson, 2004; van Dijk, 2006; Anderson, Warren and Bensemann, 2019).

The space for digital entrepreneurship takes on the nature of a "virtual location". Websites are seen as windows that reveal

underlying values, beliefs, assumptions, and capturing social practises (Perren and Jennings, 2005; Bansal and Kistruck, 2006), such as entrepreneurial discourse (van Dijk, 2006; Hjorth and Steyaert, 2013; Garud, Gehman and Giuliani, 2014; Ugoretz, 2017). Then, entrepreneurship in the digital context is being narrated (Hjorth and Steyaert, 2013).

- ii. **THE WHO:** Entrepreneurial identity (Hytti, 2005; Hytti and Heinonen, 2013; Anderson, Warren and Bensemman, 2019) is seen as the individual action to fit the expectations associated with being appropriately entrepreneurial (Stryker and Burke, 2000), delineated by the values associated with the ideology of entrepreneurship. In this sense, Down (2008) argues that entrepreneurial narratives are a key element in formulating an entrepreneurial identity. Entrepreneurship identity is essentially ideological dominated by discourses of individuality, heroism and masculinity (Ogbor, 2000; Anderson and Smith, 2007; Drakopoulou Dodd and Anderson, 2007; Larty and Hamilton, 2011; Hytti and Heinonen, 2013).

Consequently, entrepreneurial meanings are rooted in individualistic values. The heroic and masculine figure is valorised to bring about economic improvement (Anderson and Warren, 2011) through his ability to take risks, the need for achievement, dominance, aggression, independence, courage, ambition but lacking compassion and empathy (Hytti and Heinonen, 2013). However, some work points to the emergence of new and challenging meanings of entrepreneurship that demystify the individualistic assumption of entrepreneurship (Drakopoulou Dodd and Anderson, 2007). These new identities include more social/human values such as respect for the environment, diversity or community engagement (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018).

- iii. **THE HOW:** We appoint the role of espoused values as a bridge between entrepreneurs and the digital context. Espoused values are declarations of what entrepreneurs deem to be important; values underpin ethics and shape morals; they perform the function of communicating how entrepreneurs engage with their entrepreneurial ecosystem.

1.3 Thesis structure

This thesis follows a mix-method design (Johnson and Onwuegbuzie, 2004; Evans, Coon and Ume, 2011). In Chapter 2, we attempt to fulfil the ambition of theorising "where" entrepreneurship takes place by breaking new ground and attempting to contextualise digital entrepreneurship by mapping relevant values onto the ideology of entrepreneurship. We explore the values of 800 digital ventures in four European cities (London, Berlin, Paris and Barcelona) using a discursive approach. We support espoused values as a reliable construct to capture underlying entrepreneurial practises. We find that the digital context in entrepreneurship can be theorised as a nested ideological paradigm linked to the social realities of the physical context of entrepreneurs. Our findings offer conceptual and empirical contributions to overcoming our current limited explanatory power of digital entrepreneurship through contextual factors.

Chapter 3 offers one of the first attempts to represent digital entrepreneurial identities. We explore how digital entrepreneurs ideologically identify themselves (neoliberal/emergent) by mapping relevant values onto their discourses to take this further. Using a theory-driven approach, we firstly developed theoretical value structures of the main ideological variants identified in the current entrepreneurship literature: the neoliberal and emergent discourses. Second, we conducted a Quick Cluster, where we studied the values of 800 digital companies in the four main European entrepreneurial hubs (London, Berlin, Paris and Barcelona) to test our theoretical templates in the 'real world'. In this way, we were able to visualise digital entrepreneurial identities. Our findings suggest that digital entrepreneurial identities are a product of the nested relationship between the ideology of entrepreneurship and the localised physical context. In particular, the findings highlight the tension between neoliberal and emergent discourses and how different entrepreneurial identities coexist in the digital context.

Chapter 4 integrates research on entrepreneurial legitimacy and ethical principles through espoused values. This research explores how ethical guidelines support AI startups in gaining legitimacy for their AI development. We explore these ideas by tracking the values that AI startups espouse on their websites. Our four-stage mix-model method based on 40 websites in four European cities provided insights to develop a model describing the flows that connect the two processes. We find and discuss that legitimation is a loop process characterised by sequential values thresholds that determine how AI-startups overcome uncertainty and mistrust. This study reinforces the strategic importance of entrepreneurs in understanding their entrepreneurial context. Finally, Chapter 5 provides our concluding remarks on our research process.

Table 1. Overview of the chapters developed in this thesis

	Chapter 2:	Chapter 3:	Chapter 4:
Title	Contextualising Digital Entrepreneurship: Ideology, Discourse and Values.	The emerging identities of digital entrepreneurship: An ideology-based typology	On the track to ethical guidelines for AI: The legitimization loops of AI entrepreneurship
Objective	The purpose of this study is to offer a portrait of the ideology of digital entrepreneurship by examining the values embedded in entrepreneurial discourses	We aim to portray digital entrepreneurial identities, analysing (1) the hegemony of neoliberal discourse against other emerging discourses; and (2) the differences within each entrepreneurial discourse (neoliberal/emerging) across different contexts.	Our purpose is to understand the legitimacy of AI-startups. We engage in exploring how ethical principles are related to AI-startup ii pursuing legitimacy for their technological developments
Theoretical Approach	Omnibus perspective Theory of ideology	Entrepreneurial identity Theory of ideology	Entrepreneurial legitimacy Ethical issues about technologies
Methodology	Method: mix-model process in a sequential design of three stages: (1) A context analysis for data collection purposes was conducted to examine espoused values embedded in 800 digital ventures' websites (2) A stage descriptive statistical analysis was conducted to explore patterns in values. (3) A constant comparative analysis was carried out to explore our emerging insights of the previous stages in depth.	Method: Theory-drive approach; (1) Developed theoretical values structures of the main existing entrepreneurial discourses; (2) Using 800 digital startups across four top European entrepreneurial hubs (London, Berlin, Paris and Barcelona), we examine what values they espouse as the symbolic representation of digital entrepreneurs. (3) Quick cluster analysis, we tested both theoretical structures in the real world.	Method: Mix model-process in a sequential design of four stages. (1) Examining and categorizing the espoused values of the websites of AI ventures. (2) Clustering data (HCA/MCA) (3) Constant comparative analysis
Main Findings	(1) Corroborated the reproduction of neoliberal ideology (2) Identified the emergence of alternative discourses; (3) The same discourse shapes distinctive cultural representations of entrepreneurship in different physical contexts; and, (4) Proposing a conceptual model that explains the “where” of the digital context as a nested relationship between ideology and local physical context	(1) Evidence shows at least eight local digital entrepreneurial identities depending on the symbolic structures of their discourses. (2) We support the hegemony of neoliberal values in the digital context (3) Nevertheless, we also identified emerging identities as a contestation to the myth of individualistic entrepreneurs	It was identified that legitimacy is a three-phase integrative process for AI entrepreneurship. Our analysis shows that it is a loop process characterized by sequential thresholds based on how AI-startups consolidate ethical frameworks as the via to be legitimated by the entrepreneurial ecosystem to obtain the resources they need to grow.

1.4 Peer-review outcomes derived from this thesis

Several results were obtained during the development of this thesis. Table 2 shows that these contributions reflect our work on contextualising digital entrepreneurship, entrepreneurial identity, and the legitimacy of new technological developments.

Table 2. Peer-reviewed outcomes derived from this thesis

Nominations & Awards		Relationship with this thesis
Title of the award:	Nomination to the SMS Best Conference PhD Paper Prize 2020	
Title of the proposal:	Understanding the moral Space of Digital Entrepreneurship: The Where, The Who and The How of Digital Legitimation	Previous versions of Chapter 2 and Chapter 4
Conference:	Strategic Management Society 40th Annual Conference Virtual “Strategy in a Disruptive World”.	
Venue:	Online	
Year:	2020	
International Conferences & Seminars		
Title:	Contextualising Digital Entrepreneurship: Ideology, Discourse and Values.	Chapter 1
Authors:	Arroyo, L.; Discua, A.; Hormiga, E.	
Conference:	RENT 2021, 35th Conference on Research in Entrepreneurship "Inclusive Entrepreneurship."	
Venue:	Turku, Finland	
Year:	2021	
Title:	Understanding the moral Space of Digital Entrepreneurship: The Where, The Who and The How of Digital Legitimation	Previous versions of Chapter 2 and Chapter 4
Authors:	Arroyo, L.; Discua, A.; Hormiga, E.	
Conference:	Strategic Management Society 40th Annual Conference Virtual “Strategy in a Disruptive World”.	
Venue:	Online	
Year:	2020	
Title:	Entrepreneurial Narratives and Espoused Values: The Structure of the Digital Entrepreneurial Identity across Europe.	Previous version (2) of Chapter 3
Authors:	Arroyo, L.; Hormiga, E.	
Conference:	British Academy of Management 2020 Conference in The Cloud “Innovating for a Sustainable Future”.	
Venue:	Online	
Year:	2020	
Title:	Organisational Impression Management and Espoused Values: A Values Reaction Typology.	Previous version (1) of Chapter 3
Authors:	Arroyo, L.; Hormiga, E.	
Seminar:	Entrepreneurship Seminar Series, Lancaster University	
Venue:	Lancaster, UK	
Year:	2019	
Title:	Barcelona Vision 2020: Illustrating the Values Change in the Barcelona’s Business Environment	Not directly related; Outlet outcome
Authors:	Arroyo, L.; Hormiga, E.	
Colloquium	13 th Colloquium in Organisational Change	
Venue:	Manchester, UK	
Year:	2019	
Title:	Analysis of Espoused Values from an Organizational Impression Management Perspective.	Previous version (1) Chapter 2
Authors:	Arroyo, L.; Hormiga, E.	
Conference:	XXXII Annual RENT CONFERENCE: “Sustainable Entrepreneurship	
Venue:	Toledo, Spain	
Year:	2018	

Chapter 2: Digital Context for Entrepreneurship

THE WHERE:

In this chapter, we draw our attention to contextualising digital entrepreneurship. Such an endeavour is relevant to our integrative framework; for example, entrepreneurs' ability to understand "the rules of the game" is key to meeting resource holders' expectations (Fisher, Lahiri and Kotha, 2016; Fisher *et al.*, 2017). Here, we conceptualise digital context through the interaction between the set of contextual factors: digitalisation and the Industry 4.0 revolution (*when*) and digital space and neoliberal ideology (*where*). We have suggested that one way of capturing the socio-spatial nature of digital entrepreneurship is through the various symbolic elements that manifest themselves in 'digital space'.

In this sense, the ideology of digital entrepreneurship is an observable phenomenon through the discourses and values embedded in digital spaces. Then, entrepreneurship is narrated in the digital context (Hjorth and Steyaert, 2013). In essence, discourses on websites - like windows that reveal underlying values, beliefs and assumptions (Perren and Jennings, 2005; Bansal and Kistruck, 2006)—, are articulated as expressions of what values are accepted in entrepreneurial digital practises. (van Dijk, 2006; Hjorth and Steyaert, 2013; Garud, Gehman and Giuliani, 2014; Ugoretz, 2017).

Yet, we confirmed the still dominant neoliberal ideology for understanding entrepreneurship (Ogbor, 2000; Nicholls, 2009; Martinez Dy, Martin and Marlow, 2018). The crux of our analysis was the emerging values in entrepreneurial discourses that counter the dominant neoliberal view ((Hytti and Heinonen, 2013; Muñoz and Cohen, 2018; Watson, 2008). We extend these findings in Chapter 3 by testing our theoretically grounded value structures of the two entrepreneurial discourses - neoliberal and emerging.

However, the implications of these findings for our main research question suggest that these emerging values may condition the legitimacy of digital entrepreneurship and show us an ideological variation strongly shaped by the impact of digitalisation (Tilson, Lyytinen and Sørensen, 2010, p.2).

Contextualising Digital Entrepreneurship: Ideology, Discourse and Values.

Abstract

In our attempt to fulfil the ambition of theorising "where" entrepreneurship takes place while breaking new ground, this paper attempts to contextualise digital entrepreneurship by mapping relevant values to the ideology of entrepreneurship. We explore the values of 800 digital ventures in four European cities (London, Berlin, Paris and Barcelona) using a discursive approach. We support espoused values as a reliable construct to capture underlying entrepreneurial practises. We find that the digital context in entrepreneurship can be theorised as a nested ideological paradigm linked to the social realities of the physical context of entrepreneurs. Our findings offer conceptual and empirical contributions to overcoming our current limited explanatory power of digital entrepreneurship through the set of contextual factors.

Keywords: Digital Entrepreneurship, Digital Context, Ideology of Entrepreneurship, Discourse, Values.

2.1 Introduction

The foundations of the entrepreneurial phenomenon have reached a new terrain as a result of technological progress. As a result of Industry 4.0, digital technologies are becoming containers for entrepreneurial practice (Autio *et al.*, 2018), motivating a reassessment of entrepreneurship and its contextual factors (Zahra, Wright and Abdelgawad, 2014; Welter, Baker and Wirsching, 2019; Dodd, Anderson and Jack, 2021). For all we know, uncertainty about the boundlessness of digital context (Nambisan, 2017; Kraus *et al.*, 2019) challenges the notion of space (Anderson and Gaddefors, 2016; Gaddefors and Anderson, 2017) and takes entrepreneurial neoliberalism for granted (Martinez Dy, Martin and Marlow, 2018; Leung and Cossu, 2019; Welter, Baker and Wirsching, 2019). So far, however, the theorization of the digital context is still in its infancy.

For this reason, we attempt to advance the field in two ways. First, following Welter and Baker (2021), our goal is to build the context for digital entrepreneurship from an omnibus² perspective. As a first approach, we believe it is interesting to focus on theorising the "*where*" of digital entrepreneurship (Welter, 2011; Baker and Chapin, 2018; Baker and Welter, 2020; Welter and Baker, 2021). That is, the multiple places where entrepreneurship takes place, for example, spatially or institutionally (Welter, 2011). Second, in line with Anderson (2015), we attempt to question the taken-for-granted interpretations of context, raising his question if "we have erred in the persistent reification of entrepreneurship as an economic phenomenon that serves only wealth production."

In order to understand the "*where*" of digital entrepreneurship, immaterial but knows no institutional boundaries, we believe it is necessary to examine the ways in which entrepreneurial practises are understood (Johannisson and Huse, 2000). Moreover, we consider that the theory of ideology (Van Dijk, 2001; van Dijk, 2006) offers powerful theoretical elements to conduct a comprehensive analysis of the digital context.

Thus, this study aims to build a portrait of the ideology of digital entrepreneurship by examining the values embedded in entrepreneurial discourses. By focusing our attention on entrepreneurial discourses as an ideological mechanism, we decipher the values that define the ideology of digital

² "Omnibus context refers to a broad perspective, drawing attention to who, what, when, where, and why (Johns; Whetten, 1989), while discrete context refers to specific contextual variables (Johns). Thus, in concordance with Griffin (2007), context can simultaneously be considered as a "lens" (omnibus context) and as a "variable" (discrete context). As most entrepreneurship research to date has studied discrete contexts, focusing on context as variable, this article emphasizes omnibus contexts, applying a context "lens." (Welter, 2011, p. 167)

entrepreneurship. We examine the values that digital ventures espouse in their entrepreneurial discourse. Espoused values are declarations of what entrepreneurs deem important (Bansal, 2003; Bourne, Jenkins and Parry, 2017; Dominick *et al.*, 2020); values underpin ideology, shape entrepreneurial discourse and represent social realities (Anderson and Smith, 2007).

To achieve this, we conducted the mix-model method following a sequential design in three stages (Johnson and Onwuegbuzie, 2004; Evans, Coon and Ume, 2011). The first stage was a content analysis for data collection. We examine the espoused values embedded in 800 websites. We then perform descriptive statistical analysis to examine patterns in the values. At this stage, we pay particular attention to differences in value structures. Finally, to extend our observations about patterns in espoused value, we conduct a constant comparative analysis to examine our emerging insights of the previous stages (Jack *et al.*, 2015).

On the one hand, our findings confirm the reproduction of neoliberal ideology through values such as innovation, creativity, passion, challenge, transformation and change, profit, and personal commitment (Parkinson and Howorth, 2008; Leung and Cossu, 2019). However, we have noted the emergence of alternative discourses (Hytti and Heinonen, 2013). On the other hand, we also find that, contrary to the expectations of a globalised system, the discourse on digital entrepreneurship reflects the social realities and cultural representation of the context in which digital entrepreneurs are embedded (Hytti, 2005; Leitch and Harrison, 2016; Anderson, Warren and Bensemman, 2019). Our findings show that the same discourse shapes different cultural representations of entrepreneurship in different physical contexts (Leitch and Harrison, 2016). Therefore, we propose a conceptual model that explains the “where” of digital context as a nested relationship between ideology and local physical context (Nicholls and Teasdale, 2017).

2.2 Theoretical framework

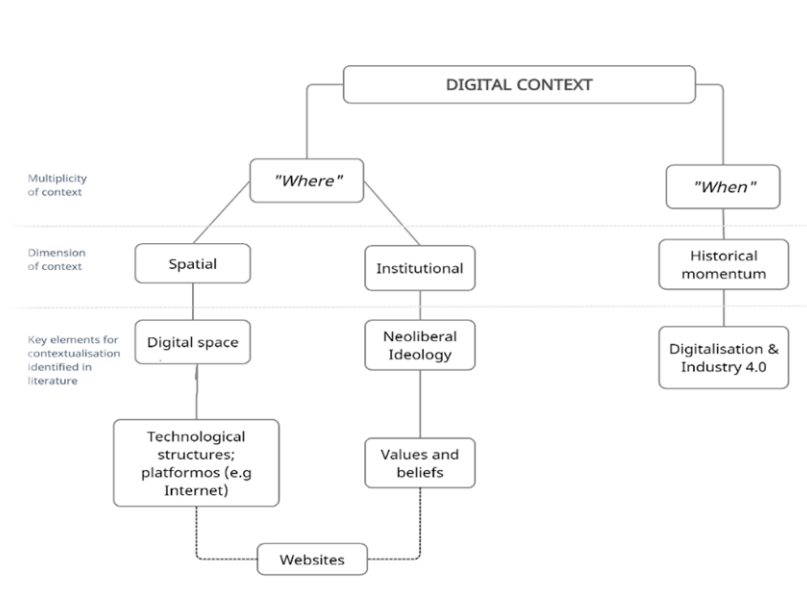
2.2.1 Where is digital context constructed? Ideology, discourse and values

By placing digital entrepreneurship in the realm of meanings and perception, we approach theorising the digital context through the lens of ideology. Van Dijk defines ideology as "foundational beliefs that underlie the shared social representations of specific social groups. These representations are, in turn, the basis of discourse and other social practices. It has also been assumed that ideologies are largely expressed and acquired by discourse" (van Dijk 2006, p.121).

In this line, Dood, Anderson, and Jack (2021, p.8) point out that "if institutions are socially constructed, they form and are formed by ideology, an ideology centred on values." For us, ideology in entrepreneurship, though, is "a system of belief that shapes behaviour individually and collectively" (Johannisson and Huse, 2000; Davidson, 2014). It serves the social function of defining norms and values that are expressed, enacted, and reproduced through discourses about entrepreneurship's worldview (Smith and Anderson, 2004; van Dijk, 2006; Anderson, Warren and Bensemman, 2019).

We then conceptualise the digital context as deeply rooted in social-institutional contextual factors' boundaries (Figure 1). The space for digital entrepreneurship takes on the nature of a "virtual location". Websites are seen as windows that reveal underlying values, beliefs, assumptions and capture social practices (Perren and Jennings, 2005; Bansal and Kistruck, 2006), such as entrepreneurial discourse (van Dijk, 2006; Hjorth and Steyaert, 2013; Garud, Gehman and Giuliani, 2014; Ugoretz, 2017). Then, entrepreneurship is narrated in the digital context (Hjorth and Steyaert, 2013).

Figure 1. A conceptualisation of the digital context



For us, espoused values are a mirror that reflects the ideology of entrepreneurship (Dodd, Anderson and Jack, 2021). Espoused values are considered the most visible and explicit statements in the oral or written form, usually found in formal organisational documents and corporate websites (Bourne, Jenkins and Parry, 2017; Dominick *et al.*, 2020).

In entrepreneurship, according to Schein (1983), they are those that "(...) founders deliberately choose to build organisations that reflect their personal biases"(Schein, 1983, p.15) and “ (...) form the basis for the group’s initial identity” (Schein, 1983, p.22). Although they do not reflect actions, they are declarations of what entrepreneurs consider important (Anderson and Smith, 2007) and convey how entrepreneurs make sense of their ideological affiliation— what entrepreneurs should be and do— (van Dijk, 2006).

Recent studies of digital entrepreneurship tell us that neoliberal values underlie ideological discourse (Table 3) (Ogbor, 2000; da Costa and Saraiva, 2012; Nicholls and Teasdale, 2017; Martinez Dy. The existing discourses seem to be anchored in a value system associated with innovation, risk, proactivity, markets and opportunities, profit and personal drive (Parkinson and Howorth, 2008), but also with the need for achievement, dominance, aggression, independence, courage, ambition but lacking compassion and empathy (Hytti and Heinonen, 2013).

The neoliberal discourse promotes people empowerment to embrace the entrepreneurial promises of freedom, flexibility and socio-economic circumstances enhancement support such a view (Martinez Dy, Martin and Marlow, 2018). Moreover, responsibility is shifted to the individual (Laalo and Heinonen, 2016; Siivonen and Brunila, 2014), highlighting personal qualities and characteristics as crucial for coping in today's world of work. The best description of the neoliberal entrepreneur is an isolated male hero valorised to lead the creation of new opportunities and implement new concepts in an uncertain and unknowable environment (Kuratko and Morris, 2018). They are motivated by his ability to take risks and challenge circumstances by adopting a positive attitude and emphasising their individuality (Scharff, 2016).

Table 3. Neoliberal values in literature

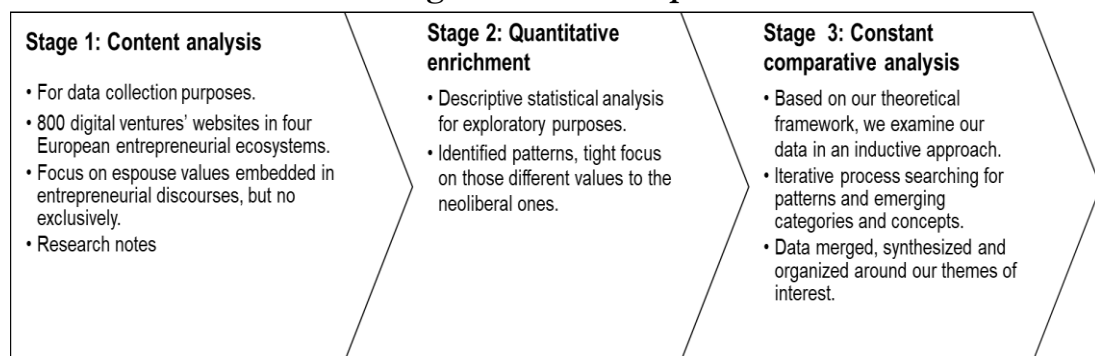
Authors	Main meanings of the entrepreneurial discourse	Boerne's values framework	
		Categories	Values
Surie and Ashley (2008) in Muñoz and Cohen (2018)	Traditional entrepreneurs may frequently feel the need to compromise their moral values in pursuit of profits	Financial	Reliability
	Within the discourse of new venture labour, workers are attracted to the digital creative sector because it is thought to be “cool, creative and egalitarian”.	Enterprise; Recognition	Creativity, fun, attitude
Leung and Cossu (2018)	Creativity, quality, changes and innovation	Enterprise, Quality	Innovation
	Collaborative production and creativity leadership skills.	Quality, Enterprise, Recognition	Leadership Individuality Responsiveness Resilience
Siivonen et al. (2019)	Neoliberal individualistic discourse that emphasises individual	Achievement, Ambition, Recognition	Confidence;
(see, e.g. Siivonen and Brunila, 2014)	Responsibility, activity and creativity in the uncertain world of work	Enterprise	Independence
	Homo oeconomicus as an entrepreneur of himself		Winning
	Ambition, calculation, accountability and personal responsibility	Ambition	Leadership, Independence
Scharff (2016)	These statements demonstrate that the self as a business needs constant attention and that various aspects of the self – physical, mental and spiritual – are worked upon for optimisation.	Achievement, Ambition, Recognition	Challenge
	The importance of being active		Tenacity
	Neoliberal philosophy of time where being idle is to be avoided	Ambition	Can do
	Since there are no limits to self-improvement, productive uses of time become paramount		Courage
	Self-optimisation applies to various spheres of life	Quality	Effectiveness
Leitch and Harrison, 2016	Bravery, ambition, success, autonomy, and self-sufficiency	Ambition, Achievement, Quality	Courage can do, leadership, individuality

2.3 Methodology

This study aims to provide a portrait of the ideology of digital entrepreneurship by examining the values embedded in entrepreneurial discourses. To this end, a mixed-methods approach was adopted, following a sequential design in three phases (Figure 2) (Johnson and Onwuegbuzie, 2004; Evans, Coon and Ume, 2011). This choice was made given its potential to capture the richness and diversity of context (Welter, 2011) and the methodological plurality that entrepreneurship researchers should incorporate (Van Burg *et al.*, 2020).

Given the characteristics associated with digital entrepreneurship, our research design is dominated by a digital ethnographic method —archival data analysis (Pink *et al.*, 2015). We consider conducting content analysis in the first stage for data collection. Since our purpose is to observe meanings closely, we examine the espoused values embedded in 800 websites. We consider this technique as a non-intrusive method to observe what people think by following them digitally. We then move to quantitative enrichment to examine patterns in values to support our construction of the ideological schema. At this stage, we pay particular attention to differences in value structures. Finally, to extend our observations about espoused value patterns, we conducted constant comparative analysis to examine our emerging insights of the previous phases (Jack *et al.*, 2015).

Figure 2 Research process



Our primary data was collected over a two-month period (July-August 2019) from 800 born-digital or adopted digital business model websites in four European entrepreneurial ecosystems (London, Berlin, Paris, and Barcelona) that are considered top environments for digital startups (Ohr, 2018). We consider a digital business model that conducts commercial transactions with business partners and buyers over the Internet (Zott, Amit and Massa, 2011). Companies' products and processes are interconnected and integrated to deliver more value to customers and companies' internal processes (Frank et al., 2019; Weill and Woerner 2013). The most common technologies in the digital business settings are mobile devices and applications, analytics tools, capacity-sharing platforms and the Internet of Things (Luz Martín-Peña, Díaz-Garrido and Sánchez-López, 2018).

We exclude the ventures that use websites only to present information about products or services (Zott, Amit and Massa, 2011). The dataset we extract from Crunchbase® consists of more than 100,000 entrepreneurial ventures and is considered more accurate in terms of small and medium enterprises and multinational corporations than other sources (Thies et al., 2019; Cumming, Werth, and Zhang 2019). Table 4 shows the characteristics of the sample.

Table 4. Sample

Business Characteristics	N(%)	Mean	SD
Business Size	800	0,7875	0,75036
Micro	295 (36,9)		
Small	413 (51,6)		
Medium	59 (7,4)		
Large	33 (4,1)		
Business Age	800	0,8488	0,50616
Less than four year	172 (21,5)		
Between 5 to 9 years	577 (72,1)		
Greater than ten years	51 (6,4)		
Stage of funding	800	1,949	1,342
Pre-Seed	164 (20,5)		
Seed	122 (15,3)		
Serie A	232 (29)		
Serie B	155 (19,4)		
Serie C	127 (15,9)		
International Operations	800	0,57	0,496
No International	345 (43,1)		
International	455 (56,9)		
Espoused values		8,66	4,95

2.3.1 Stage 1: Data collection

Following our conceptualization of espoused values as a reliable construct for understanding the 'repertoire of structured narrations' (Bourne, Jenkins and Parry, 2017; Siivonen *et al.*, 2019), we conducted a content analysis as a method for exploring the ideology of entrepreneurship (Chun, 2019; Dominick *et al.*, 2020). Our purpose was to identify and describe patterns of organisational values on corporate websites (Kabanoff and Daly, 2000, 2002; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017). This virtual site provides the context to explore how entrepreneurship is understood by observing the discourse around espoused values (Chun, 2019; Welter, Baker and Wirsching, 2019; Dominick *et al.*, 2020; Dodd, Anderson and Jack, 2021).

We used the most recent framework developed by Bourne *et al.* (2017). Specifically, we chose it because it encompassed and compared existing organisational values frameworks, highlighting the need for an inventory based on the terms used by organisations and the fact that previous studies were conducted more than 20 years ago (i.e., Kabanoff *et al.* (1995) (see Appendix 1).

The framework includes 75 values classified in the paradoxical tension between economic and social-human orientations (Kabanoff, Waldersee and Cohen, 1995; Smith, 2011; Bourne, Jenkins and Parry, 2017). On the one hand, the economic orientation has a primary goal of business competence, productivity, and efficiency. Some value labels within this orientation are financial strength, being global, innovation, efficiency, or reliability. In contrast, the social-human orientation focuses on issues related to morality, social concerns, and sustainability (Bourne, Jenkins and Parry, 2017). In this case, some examples include social responsibility, trust, supporting others, caring for the environment, or compliance (Kabanoff and Holt, 1996; Bourne, Jenkins and Parry, 2017).

We analysed the data using a traditional manual method to increase context sensitivity. In general, human coders are thought to be better at judging the meaning of a word in a given context (Kabanoff and Daly, 2000). To avoid the disadvantages of the manual method, a content dictionary was created. The Oxford Business Dictionary supported internal consistency due to language differences. Table 5 shows an example of the exercise done.

Table 5. Examples of espoused values identified at websites

Example of an excerpt from websites	Espoused values
Barcelona (ID 531). "We're not just another delivery app, we want to become the everything app. Our global team works together by leveraging the latest technology to connect people to possibilities. We believe in leading the way. Do you"	Being global, technology, leadership, teamwork, innovation, can do, passion.
Berlin (ID 325) " (...) introduces a highly innovative, digital and disruptive Platform to a traditional and antiquated yet global operating industry. The traditional tax-subsidised meal voucher market. X aims to replace the existing insufficient and technologically outdated solutions with a revolutionary and digital business model. With its Omni-Channel approach, X enables employees to redeem vouchers for any food related item at any venue, giving them 100% acceptance across whole Europe. X is also the first to achieve a 100% tax and law compliant solution to ensure meal vouchers are only used in their originally intended way as a subsidisation for food."	Innovation, being global, technology, leadership, service, compliance
London (ID 447) "X one of the UK's fastest growing startups. If you feel your business could benefit from hiring motivated workers available on-demand, or if you're a job seeker looking for above-average paid casual work at your convenience, then X is the service for you."	Growth, excellence, service, professionalism
Paris (ID 173) "X has one vision: make Android work for the next-generation enterprise, no matter the device. X is driven by a "mixture" of factors: innovation and generation Y. More than an age group, generation Y embraces special values: work with fun and passion, always stay connected, communicate through social media...."	Transformation and change, technology, innovation, passion, communication

2.3.2 Stage 2: Quantitative enrichment

As a result of the content analysis, espoused values were evaluated and analysed using a descriptive technique to depict the ideological structure of digital entrepreneurial discourses. In total, we obtained a database of 60000 binary codes. The highest number of values reported was 35, and the lowest was 1. The average number of espoused values provided by digital ventures in this study was 8.66, which is a reasonable range (Jonsen et al., 2015). However, considering this ratio, more than 54 percent of digital ventures are below it (n=438; 54,8%).

In our data analysis, we found that there are also "other values" in entrepreneurship that are not associated with neoliberalism. For this reason, we decided to divide them into two ideological categories according to our theoretical framework, into two ideological categories: neoliberal or emerging. This decision was made in our analysis because it is important to look beyond

the taken-for-granted conceptualisations of entrepreneurship (Dodd, Anderson and Jack, 2021). In total, 39 labels were categorised as neoliberal. Breaking down the data by neoliberal values (Table 6) shows that technology, leadership, being global, excellence, expertise, innovation, growth, passion, speed, and individuality are most prevalent across all websites.

Table 6. Neoliberal values

Sub-Categories	Values	f	Presence (%)
Quality	Technology	333	41,6
Recognition	Leadership	278	34,8
Financial	Being/going global	264	33,0
Quality	Excellence	248	31,0
Quality	Expertise	230	28,7
Enterprise	Innovation	222	27,5
Enterprise	Growth	166	20,8
Ambition	Passion	163	20,4
Quality	Speed	157	19,6
Recognition	Individuality	145	18,1
Quality	Efficiency	132	16,5
Achievement	Winning	132	16,5
Ambition	Pride	131	16,4
Enterprise	Agility	129	16,1
Financial	Reliability	128	16,0
Ambition	Confidence	102	12,8
Financial	Value for money	87	10,9
Achievement	Challenge	77	9,6
Quality	Professionalism	76	9,5
Quality	Responsiveness	74	9,3
Quality	Continuous improvement	74	9,3
Enterprise	Creativity	73	9,1
Quality	Effectiveness	68	8,5
Ambition	Inspiration	64	8,0
Recognition	Learning	61	6,4
Enterprise	Entrepreneurship	58	7,2
Ambition	Commitment	58	7,2
Recognition	Fun	57	7,1
Quality	Ownership	56	7,0
Ambition	Tenacity	46	5,8
Ambition	Independence	37	4,6
Ambition	Attitude	35	4,4
Ambition	Courage	35	4,4
Ambition	Enthusiasm	32	4,0
Enterprise	Pragmatism	27	3,4
Ambition	Can do	27	3,4
Ambition	Resilience	22	2,8
Quality	Diligence	7	0,9
Recognition	Hope	5	0,6

In this point, we have denoted a total of 36 emergent values, including two new labels that are not considered in the Bourne (2017) framework: Transformation and happiness. Breaking down the data by emerging value (Table 7) shows a high presence of simplicity, service, safety, people, transparency, trust,

stakeholder, compliance, care for the environment, community, teamwork, and diversity. Cross-comparing between categories, we find that the values with the highest presence belong to the neoliberal category. This finding points to the neoliberal embeddedness of digital venture; however, but also shows that there are new values that can be articulated in alternative entrepreneurial discourses.

Table 7. Emerging values

Sub-Categories	Values	f	Presence (%)
Customers	Simplicity	291	36,4
New value	Transformation/change/revolution	214	26,8
Customers	Service	208	26,0
Safety	Security	135	16,9
Collaboration	People	125	15,6
Equality	Transparency	113	14,1
Collaboration	Trust	106	13,3
Customers	Stakeholders	92	11,5
Safety	Compliance	91	11,4
Sustainability	Care for environment	87	10,9
Sustainability	Community	87	10,9
Collaboration	Teamwork	86	10,8
Equality	Diversity	83	10,4
Partnership	Responsability	79	9,9
Partnership	Making a difference	75	9,4
Sustainability	Social responsibility	69	8,6
Collaboration	Empowerment	64	8,0
Partnership	Accountability	61	7,6
Sustainability	Health	60	7,5
Collaboration	Openness	59	7,4
Sustainability	Ethical practice	55	6,9
Equality	Life quality	54	6,8
Collaboration	Supporting others	53	6,6
Equality	Democracy	45	5,6
Equality	Inclusion	44	5,5
Collaboration	Developing others	42	5,3
Collaboration	Honesty	41	5,1
Equality	Communication	41	5,1
New value	Happiness	33	4,1
Equality	Fairness	32	4,0
Collaboration	Respect	31	3,9
Collaboration	Integrity	27	3,4
Collaboration	Compassion	27	3,4
Collaboration	Loyalty	18	2,3
Safety	Prudence	13	1,6
Collaboration	Humility	9	1,1

2.3.3 Stage 3: Constant comparative analysis

During data collection, we kept a reflective journal to record our research process and the details of our thoughts as we inductively analysed our data. The outcome of this exercise provides us with a valuable source of secondary data that was analysed using the constant comparative method (Jack et al., 2015). Following Jack et al. (2015) procedure, we first sifted through all the data and collated what seemed most relevant. The second step was to look for patterns. This process involved the constant comparative method of an iterative review of the data with emerging categories and concepts. This method has become an accepted approach to address the social perspective of entrepreneurship (Smith, 2017; Anderson, Warren and Bensemman, 2019), even the digital one (Martinez Dy, Martin and Marlow, 2018).

The new data we obtained from our archival sources and reflective journal were brought together, synthesised, and organised around the theme of our interest: the *where* of digital entrepreneurship. This process allowed us to categorise our raw data and place it into explanatory categories. We analysed the data using Atlas.ti 9, comparing and contrasting patterns to determine categories. This process meant that observations and content on the websites were continually compared to the emerging categories.

We refined these patterns into descriptive categories and became analytical categories. In other words, how could these categories be combined to explain the ideology of digital entrepreneurship? (Jack *et al.*, 2015) These iterative processes were inductive and contrasted by the research team. Next, we focused on how these explanatory categories help to understand the complexity of the digital context. Finally, we integrated our explanatory categories into an integrative conceptual framework. The process is illustrated in Figure 3 and Table 8.

Figure 3 Analytical process

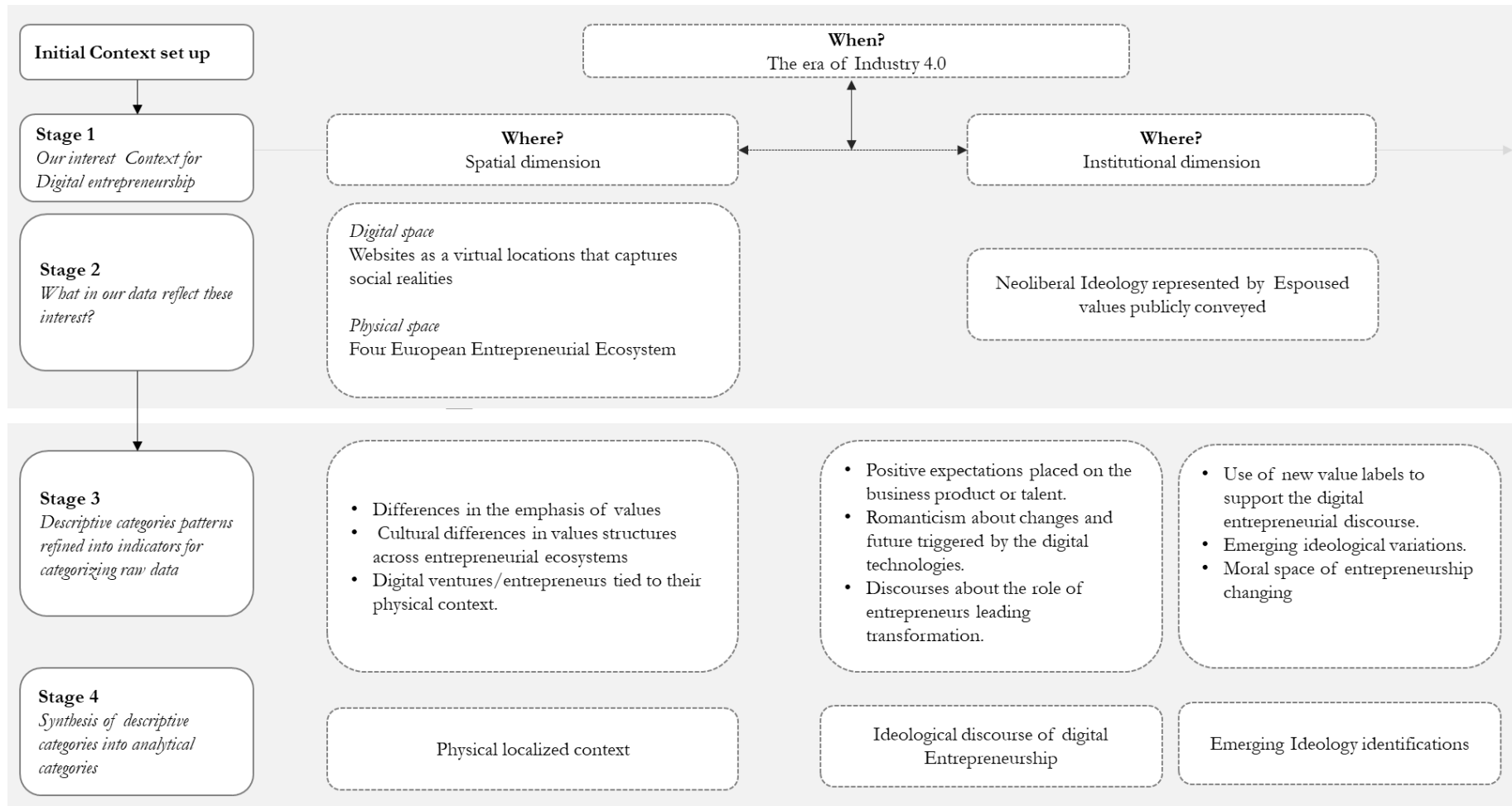


Table 8. The analytical process from descriptive to analytical categories

Stage 3 Descriptive categories	Data source utilised	Examples from these data sources which 'identify the phenomena'	Summary of findings- What is the story?	Stage 4 Analytical categories
Entrepreneurial discourse —What entrepreneurs deem important	<p>Digital ventures' website: Espoused values conveyed in 800 digital websites.</p> <p>We examine websites the following layers: Starting/Product or services About us Our mission/mission/values (when applied) Join us/Work with us (when applying) Social Responsibility (when applying)</p>	<p>Positive expectations spaced on the business, product, or talent.</p> <p>The overwhelming use of humanised descriptive labels like beauty, happiness, love, friendliness, humane-oriented, kindness, and passion about transformation, change, revolution, and the technologies' role in simplifying people's lives. It could be observed in the following value statement: [X] "Building something for tomorrow." [x] "Leading the next generation of AI". [x] "Future as a promise." [x] "We believe in technology that makes your life easier." [x] "(...), a PIM focused on the future"</p> <p>Digital entrepreneurs settle accounts about how they overcame the uncertainty of digital space, creating disruptive solutions: [X] "His parents invented the name X meaning 'capable' in Arabic. Moves from X to X with his whole family, having only 1000 euros to start their new life in X.(...) Lives in the shadow of his brother's achievements. (...). Doesn't get into the final of his first skating competition and loses all confidence in himself (...).</p>	<p><i>Idealisation of how technologies change the future, making easier our lives.</i></p> <p><i>Discourse about the role of entrepreneurs leading the transformation</i></p>	<p>The ideological schema of digital entrepreneurship—Neoliberal embeddedness</p>

Table 9. The analytical process from descriptive to analytical categories (...continued)

Stage 3 Descriptive categories	Data source utilised	Examples from these data sources which 'identify the phenomena'	Summary of findings- What is the story?	Stage 4 Analytical categories
Alternative values in entrepreneurial discourse	Findings of our quantitative analysis	Values with the highest presence in entrepreneurial discourse: Simplicity, transformation and change, service, security, people, transparency, trust. New concerns related to the risky nature of digital entrepreneurship due to its uncertain nature.	<i>Use of alternative value labels to support the digital entrepreneurial discourse.</i> <i>New rules of the game</i>	Emerging Ideology identifications
Cultural differences across entrepreneurial ecosystems	Research notes obtained during de content analysis	<p>Barcelona More opacity about digital venture information; Use of fashion literacy to enhance productivity and quality</p> <p>London Passion for new technologies; Cost-efficiency; Founders enhancement; Promotion of recognition</p> <p>Paris Most digital ventures do not have English versions of French as a vehicular language to commercialise products. Manifestation of ethical concern for web environments Happiness is a value;</p> <p>Berlin Humanity as a driver of entrepreneurial activities; Customisation as the primary attribute; Agility-speed to deliver as a service; Weak emphasis on sustainability and ethical values; Success demonstration using labels like largest, first, leader; Working towards immediacy; City branding support and german as a vehicular language</p>	<i>Business-centred values; continuous improvement and quality</i> <i>Bussiness-centred values; efficiency and reinforcement of hero.</i> <i>Language as a connection with cultural context</i> <i>Concerning beyond profit-making</i> <i>Business-centred; agility and leadership</i>	Local embeddedness

2.4 Integration

As Table 8 shows, three main explanatory categories emerged from our iterations: the ideological values of digital entrepreneurship and its ideological nature, emerging ideological affiliations, and local embeddedness. These were applied to explain the digital entrepreneurship context.

2.4.1 The ideological values of digital entrepreneurship and its ideological nature.

Our analysis points to the neoliberal ideological nature of digital entrepreneurship. First, we found that entrepreneurial discourses are structured to create credibility around digital technologies. By idealising digital transformation, the benefits of technology to society are touted. Moreover, the characteristics of the business or products are highlighted and emphasised on how they simplify people's lives by using terms such as beauty, happiness, love, kindness, goodness and passion.

Moreover, it can be observed that the heroic figure of the entrepreneur is promoted as a pioneer of digital transformation. In their personal stories, digital entrepreneurs tell how they overcame the uncertainty of the digital space and created disruptive and creative solutions. This superhuman leadership is supported by values such as leadership, love and passion, prestige, recognition and resilience. It seems like entrepreneurs are performing like superheroes in the digital space.

2.4.2 Emerging ideological affiliations

The second explanatory category describes emerging ideological affiliations in digital entrepreneurship. Our quantitative analysis identified values other than those typically associated with neoliberalism in entrepreneurship. Our research notes could extend that emerging digital entrepreneurial discourses are articulated around simplicity, transformation and change, service, security, people, transparency, and trust, among others. Here, the new concerns about digital space's risky nature were evidenced. The uncertainty of digital operations is forcing the institutionalisation of new rules of the game. A profound cultural change and transformation forces credibility and trust as a normative requirement for social desirability

2.4.3 Local embeddedness

Finally, our third explanatory category relates to the local embeddedness of the ideology of digital entrepreneurship. We observed the interplay between the digital and the local physical context by contrasting what entrepreneurs deem important. This observation is best illustrated by comparing the different cities in our study. In Berlin, entrepreneurial discourse is moving from the traditional vision of "making a profit" to representations that revolve around the position of "people at the centre of the business" and "digital activism for greater transparency." In Berlin, we find a clear example of trust as a critical micronorm for success in the digital space. This points to a context where the humanisation of technology is paramount. London's distinctive features lie in the dichotomy between "the sense of global change" and "the classic enterprise discourse of sustainability." In Paris, we observed that the empowerment of new entrepreneurial identities revolves around a hedonistic conception of doing business. Finally, the Barcelona case illustrates the tension between "the vision of business excellence" and "concern for the three-bottom line, especially environmental issues."

2.5 Discussion

At the outset of this study, we were concerned to advance our understanding of the digital context from an omnibus perspective. Digital entrepreneurship takes place in digital spaces -websites- where it is possible to observe and understand the ideology that defines what is relevant for digital entrepreneurs. Our findings suggest that digital entrepreneurship is driven by free-market principles, economic improvement, and the logic of innovation and creativity (Ogbor, 2000; Nicholls, 2009; Martinez Dy, Martin and Marlow, 2018). We have observed a reproduction of the same neoliberal values associated with other types of entrepreneurship, such as innovation, creativity, passion, challenge, transformation and change, profit, and personal drive (Parkinson and Howorth, 2008; Leung and Cossu, 2019).

Digital entrepreneurship is a cool, creative, and innovative lifestyle (Leung and Cossu, 2019) enacted by the hero who could maximise their potential for innovation and wealth creation (da Costa and Saraiva, 2012; Martinez Dy, Martin and Marlow, 2018). On the one hand, digital entrepreneurial discourses

idealise the change and future created by introducing radically new products, services, and processes in the digital marketplace. The discourse uses neoliberal values to praise digital technologies and shape entrepreneurial opportunities (Nambisan, 2017). It emphasises “the amazing and magical aspects of technology (...), giving the impression of the digital as a supernatural entity” (Dufva, 2017; p.135) that are developed to simplify our lives.

On the other hand, this reinforces the figure of the digital entrepreneur as a superhero (Anderson and Warren, 2011; Nicholls and Teasdale, 2017). Although Drakopoulou and Anderson (2007) have warned against the hero myth, our findings demonstrate the validity of this social construction in digital entrepreneurship. The digital hero is valorised to create new opportunities and implement new concepts in an uncertain and unknowable environment (Kuratko and Morris, 2018), motivated by the ability to take risks and alternative circumstances by adopting a positive attitude that emphasises their individuality (Scharff, 2016). Consistent with neoliberal principles, we find that digital discourse places responsibility on the individual (Laalo and Heinonen, 2016; Siivonen and Brunila, 2014) and emphasises personal qualities and characteristics as crucial to coping in today's work environment (Leung and Cossu, 2019).

Although, our findings support the taken-for-granted neoliberal vision of entrepreneurship. (Drakopoulou Dodd and Anderson, 2007; Leung and Cossu, 2019; Welter, Baker and Wirsching, 2019; Dodd, Anderson and Jack, 2021), the crux of our analysis was the emerging values that resist the dominant neoliberal view. We found values that could evidence alternative discourses to the neoliberal discourse (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018; Watson, 2008). These emerging values show us an ideological variation strongly shaped by the impact of digitalization (Tilson, Lyytinen and Sørensen, 2010, p.2).

This historical dynamic is characterised by hyperconnectivity, in which the technosphere, the natural world and the human world are interconnected (Park, 2018). New digital technologies offer innovative and entrepreneurial opportunities (Nambisan, 2017; Kraus *et al.*, 2019). New generations of entrepreneurs are disrupting markets with their digital business models and changing the rules of the game (König *et al.*, 2019). However, the processes and outcomes of digital entrepreneurship require profound cultural change and the transformation of social values (Mendoza, Rodriguez Alfonso and Lhuillery,

2021). Consequently, entrepreneurship has become a more transparent and accountable mechanism, tied to the community and responsive to the new socio-technical dynamics.

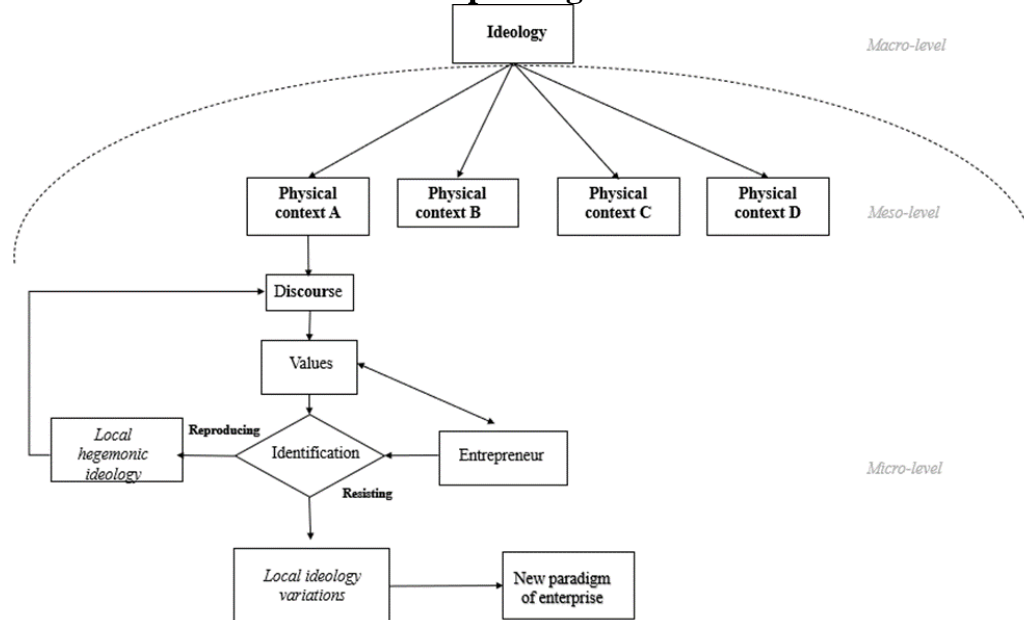
Despite the immateriality of digital space (Nambisan, 2017; Kraus *et al.*, 2019) and the expectations of the globalised system, the discourse on digital entrepreneurship reflects the social realities and cultural representation of the space in which digital entrepreneurs are embedded (Hytti, 2005; Leitch and Harrison, 2016; Anderson, Warren and Bensemann, 2019).

It affirms that entrepreneurship is a social and spatial practise that takes on new meanings in different times and spaces (Hytti, 2005), including digital space. Anderson and Smith (2007, p.494) state that “different groups may attribute different values to enterprises. Different viewpoints will prioritise different means and outcomes, so that what the entrepreneur does, and how they do it, will generate different perceptions of value”. Local representations of entrepreneurship (Leitch and Harrison, 2016) encompass “the societal traits and relations that underpin spaces in terms of prevailing mindset and the overall ‘way of life’” (Huggins and Thompson, 2014, 2016). In other words, the local context translates neoliberal values according to social reality.

Our findings empirically demonstrated the tension between neoliberal and emerging discourses and how digital entrepreneurial identities reproduce the culture of each context (Leitch and Harrison, 2016). Therefore, it supported introducing a conceptual model (Figure 4), which explains *the where* of digital entrepreneurship as a nested relationship between ideology and local entrepreneurial discourses (Nicholls and Teasdale, 2017). The model depicts the findings across thresholds that distinguish between ideology (macro-level) and local expectations of digital entrepreneurship (meso-level).

This conceptualization of the nested paradigm captures the power of neoliberal ideologies, by which values local entrepreneurial discourse is determined, and how societies are affiliated with their local ideological variants. However, we also propose that local ideological variations emerge from the ideological affiliation of societies (entrepreneurs/ventures) in this process by assessing the congruence between alignment with the values emphasised by the dominant ideology or the construction of their worldview.

Figure 4. The ideology of digital entrepreneurship as a nested paradigm



We have noted that digital entrepreneurship demonstrates a new cosmopolitan enterprising. Possibly ideology, discourse and values are a good source to advance our understanding of the transformation of entrepreneurship, not only in terms of its process and outcomes but also as a social process. There is no doubt that neoliberal values dominate digital entrepreneurship, but the evidence shows a possible redefinition of what it means to be an entrepreneur beyond neoliberal ideologies. In any case, we are cautious because the findings could reveal a new, more emotional and human phase of the same free-market principles.

2.6 Contributions, Implications and Limitations

This study contributes to our understanding in several ways. First, our contextualization was based on the interplay of "when" and "where" digital entrepreneurship occurs. We echo Welter's work (Welter, 2011; Baker and Welter, 2020; Welter and Baker, 2021), recognising the importance of context (Welter, 2011). The "where" of entrepreneurship changes drastically due to the influence of the "when" (Welter and Baker, 2021). Our current temporal and

historical context is characterised by the acceleration of the digitalization process and the Industry 4.0 revolution (Tilson, Lyytinen and Sørensen, 2010; Park, 2018; Frank *et al.*, 2019). This attempt conceptualises the digital context as the multiplicity of contextual dimensions. Although the "when" was not the focus of this study, it serves as a temporal frame to illustrate the origin of the "where".

Second, we support the power of entrepreneurial discourse and values to reflect the context where digital "everyday entrepreneurship" occurs. By analysing espoused values in the digital space, our findings broaden the discussion of digital entrepreneurial discourse and confirm the relevance of the socio-technical relationship between digital technologies and entrepreneurs. This study provides a guide for entrepreneurial actors (entrepreneurs, investors, institutions) to improve their understanding of the rules of the game in the digital space that provides legitimacy, considering the importance of normative elements for the success of new ventures.

Third, we provide a descriptive model to explain why, despite the borderlessness of the digital space, the values accepted by digital entrepreneurial practises are influenced by the physical context in which entrepreneurs find themselves. Fourth, our findings also open up a debate on emerging values opposite to neoliberal values. This observation could mean a potential redefinition of the conventional neoliberal discourse or a more emotional and human discourse on entrepreneurship that relabels the same neoliberal principles. Finally, in methodological terms, we have applied non-invasive digital ethnography techniques to capture social interactions across websites (Pink *et al.*, 2015; Van Burg *et al.*, 2020).

The main caveats in this study relate to the use of espoused values. While we believe this does not detract from the exploratory nature of the study, it is worth noting that some authors caution us that these are not necessarily organisational practises and may tend to be incongruent between what they say and what they do (Bourne, Jenkins and Parry, 2017). Nonetheless, the espoused values are a key element for business to build a desirable image by communicating with internal and external stakeholders (Chun, 2019).

This study highlights that focusing on ideology opens up new possibilities for theory building. Comparative studies across multiple countries could and should expand our knowledge on this topic, especially if underlying entrepreneurial factors are included. Future qualitative studies can select and examine more

digital spaces based on theoretical saturation principles. For example, further group-level studies could focus on digital spaces that are influenced by teams, which invites going beyond the individual level of analysis. Future lines of research that could be very interesting relate to how heterogeneous digital entrepreneurs in different digital spaces draw on value in collaboration with others. Moreover, the relationships presented in our model can be empirically tested using large-scale surveys or panel data. It will allow us to generalise a broader population of digital entrepreneurs and expand our understanding of ideology in our digital age.

Chapter 3: Digital Entrepreneurial Identity

THE WHO:

This chapter addresses our interest in portraying digital entrepreneurial identities. As we noted in our earlier study, there is evidence that new social discourses are emerging (Hytti and Heinonen, 2013; Anderson, Warren and Bensemann, 2019), challenging the taken-for-granted entrepreneurial values (Nicholson and Anderson, 2005; Kuratko and Morris, 2018).

Accordingly, we developed theoretical value structures of the main existing entrepreneurial discourses identified in the current entrepreneurship literature: neoliberal and emerging. Our findings show us the existence of digital entrepreneurs who identify and represent themselves as activists for responsible entrepreneurship and social impact.

The question now is what these emerging identities signify: an exercise in disguising neoliberal values that reinforce emotional statements or a genuine shift towards a new culture of entrepreneuring. It is relevant because "entrepreneurial identity embeds claims that relate to all three levels of analysis: the founder (individual level), the proposed new venture (organisational level) and the focal institutional sector" (G. Fisher, Lahiri, and Kotha 2016, p.387).

For this reason, we elaborate in Chapter 4, analysing the ideological affiliation between digital ventures and resource holders in the context of responsible innovation in the design, development and adoption of new technologies.

The emerging identities of digital entrepreneurship: An ideology-based typology

Abstract

Purpose- This article offers one of the first attempts to depict digital entrepreneurial identities. To do so, we examine how digital entrepreneurs ideologically identify themselves (neoliberal/emerging) by mapping relevant values onto their discourses.

Design/methodology/approach- Based on a theory-driven approach, we first developed theoretical value structures of the main ideological variants identified in the current entrepreneurship literature: the neoliberal and the emerging discourses. Second, we conducted a Quick Cluster, where we studied the values of 800 digital ventures in the four top European entrepreneurial hubs (London, Berlin, Paris and Barcelona) to test our theoretical templates in the 'real world'. In this way, we were able to visualise digital entrepreneurial identities.

Findings- Our results suggest that digital entrepreneurial identities are a product of the nested relationship between the ideology of entrepreneurship and the localised physical context. In particular, the findings highlight the tension between the neoliberal and emerging discourses and how different entrepreneurial identities coexist in the digital context

Research implications- We introduced the theory of ideology to examine digital entrepreneurial identities through the relevant values in the discourses. We theorise about the ideological identification of entrepreneurs that reproduce or defeat the hegemonic neoliberal discourse. Our contributions reveal the ideological embeddedness, how the digital entrepreneurial identities reproduce the culture of each context and the coexistence of multiple and contradictory digital entrepreneurial identities.

Originality/value- This paper also seeks to respond to calls for more research on identity as a symbolic expression of the cultural understanding of a new context, such as the digital context. We pay attention to the interplay between digital context and entrepreneurship, expanding the notion of ideology as an enabler of entrepreneurial identity.

Keywords: Entrepreneurial identity, Digital Entrepreneurship, Ideology, Espoused Values.

3.1 Introduction

The social and technological changes in today's world are transforming entrepreneurial identities. As a result, new social discourses are emerging (Hytti and Heinonen, 2013; Anderson, Warren and Bensemman, 2019). They challenge the taken-for-granted entrepreneurial values (Nicholson and Anderson, 2005; Kuratko and Morris, 2018) of the digital hipster cliché (Delacroix, Parguel and Benoit-Moreau, 2019; Rudic, Hubner and Baum, 2021). As far as we know, digital entrepreneurs are portrayed as young, well-educated, and urban opportunity-driven entrepreneurs who benefit from influential social networks and a combination of up-to-date technical and business skills (Zaheer et al., 2019).

Recent studies extend this mainstream coinciding in their innovation and creativity orientation, independence and self-realization, and organisational and strategic mindset towards financial success (Ammirato *et al.*, 2019; Horst, Järventie-Thesleff and Perez-Latre, 2020; Rudic, Hubner and Baum, 2021). In a broader perspective, digital entrepreneurs reproduce the neoliberal hero (da Costa and Saraiva, 2012; Martinez Dy, Martin and Marlow, 2018; Leung and Cossu, 2019).

What is less clear is the nature of what Hytti and Heinonen (2013) have called alternative identities. These emerging identities reject the individualistic assumption of entrepreneurship (Drakopoulou Dodd and Anderson, 2007) and embrace more social and human concerns (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018). An in-depth study of these emerging discourses allows us to look at the changes in the mindset of the new generation of entrepreneurs that will affect processes and entrepreneurial outcomes. Digital entrepreneurship is a good example of this change. However, there is little evidence in the literature on digital entrepreneurship that makes "the other identities" visible."

To this end, we seek to portray digital entrepreneurial identities by analysing (1) the hegemony of neoliberal discourse over other emerging discourses and (2) the differences within each entrepreneurial discourse (neoliberal/emerging) in different contexts. Based on a theory-driven approach (Doty and Glick, 1994; Kibler *et al.*, 2020), we first developed theoretical value structures of the main existing entrepreneurial discourses defined as neoliberal and emergent in the current entrepreneurship literature that defines neoliberal and emerging. Secondly, using 800 digital start-ups across four top European entrepreneurial

hubs (London, Berlin, Paris and Barcelona), we examine what values they espouse as the symbolic representation of digital entrepreneurs. Finally, we used Quick cluster analysis to test both theoretical structures in the real world. As a result, we were able to visualise the digital entrepreneurial identities.

Our main findings offer insights into digital entrepreneurial identities and empirical evidence of the ongoing transformation of discourses on entrepreneurship (Kuratko and Morris, 2018). The empirical evidence reveals at least eight local digital entrepreneurial identities (Makri, Papadas and Schlegelmilch, 2019) that depend on the symbolic structures of their discourses: Neoliberal-based: Homo-Economicus, Neo-Taylorist, The Winner, Creative Worker; and Emerging-based: Supportive, Environmentally sustainable, Socially Sustainable, and Communitarian. We support the hegemony of neoliberal values in the digital context. However, we have also found that emergent identities challenge the myth of the individualistic entrepreneur (Drakopoulou Dodd and Anderson, 2007; Hytti and Heinonen, 2013).

Our study contributes in several ways. First, it responds to Leitch and Harrison (2016) exploring entrepreneurial identity in the new context—digital space—and builds symbolic representations of the entrepreneurial discourses that shape it (Jones *et al.*, 2019). Second, we conceptualise how digital entrepreneurial identities reproduce the values of the context (Leitch and Harrison, 2016) and the coexistence of multiple and conflicting digital entrepreneurial identities (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018).

The paper is structured as follows. First, we briefly explain the concepts of entrepreneurial identity and espoused values, particularly the link between the internal and external dimensions of entrepreneurial identity. Then, we develop our theoretical proposal of digital entrepreneurial identity. Next, we test our theoretical templates by conducting a cluster analysis. Finally, we report and discuss the existing ideologies behind digital entrepreneurial identities and the roles attributed to entrepreneurs (Werthes, Mauer and Brettel, 2018).

3.2 Conceptualizing entrepreneurial identity

In the current discussion, entrepreneurial identity is considered a social and spatial phenomenon that emerges through the interaction between entrepreneurs, society and culture (Alvesson, Ashcraft and Thomas, 2008; Down and Warren, 2008; Leitch and Harrison, 2016). As a concept, entrepreneurial identities are viewed as cognitive schemas of interpretations and behavioural meanings that characterise entrepreneurs (Alvesson, Ashcraft and Thomas, 2008; Yitshaki and Kropp, 2016). At the same time, they are also the social construction of appropriate entrepreneurship; the values ascribed to entrepreneurship and qualities assigned to it (Hytti, 2005; Anderson and Smith, 2007) motivate and guide socially desirable role behaviour (Leitch and Harrison, 2016).

From this perspective, entrepreneurial identity is a product of negotiation between the 'self' and 'social' identities (Watson, 2008, 2009; Hytti and Heinonen, 2013). While the entrepreneurial self encompasses the main interest in the individual's cognitive processing (Alvesson and Willmott, 2002; Fletcher, 2006; Yitshaki and Kropp, 2016) and the character (Watson, 2009); social identities determine which entrepreneurs enjoy stronger institutional and material support than others (Down and Warren, 2008; De Clercq and Voronov, 2009; Anderson, Warren and Bensemman, 2019).

Watson (2008, 2009) has related the duality between the "self" and the "social" aspects of identity and suggests that identity work—the process of identity formation—as “a coming together of inward/internal self-reflection and outward/external engagement- through talk and action- with various discursively available social identities” (Watson 2009, p. 267). This integrative view of identity work emphasises the influence of discourse on identity formation (Down and Warren, 2008; Watson, 2008).

Accordingly, we view entrepreneurial discourse as arenas for identity work (Hytti, 2005; Hytti and Heinonen, 2013). Entrepreneurial discourse shapes, forms, and infuses with meaning to the entrepreneurial experience (Garud, Gehman and Giuliani, 2014; Leitch and Harrison, 2016; Anderson, Warren and Bensemman, 2019). They are a fertile source for interpreting and communicating perceptions of social realities (Anderson and Warren, 2011; Roundy and Asllani, 2019; Kibler *et al.*, 2020) and emphasise the belief and value system that frames

the context in which entrepreneurship takes place (Smith and Anderson, 2004; Hytti, 2005; Garud, Gehman and Giuliani, 2014).

That is, discourses are a symbolic expression of ideology that conveys meanings and values that shape individual and collective behaviour (Davidson, 2014). For us, entrepreneurial identities are the value structures produced by entrepreneurs that convey the balance between who they are and who they should be (Bredvold and Skálén 2016). In other words, they express how entrepreneurs experience their social reality (Hytti and Heinonen, 2013) and give meaning to their entrepreneurial practises (Garud, Gehman and Giuliani, 2014).

3.3 An entrepreneurial identities typology based on ideology and discourse: An espoused values approach.

We develop our understanding of entrepreneurial identity based on Van Dijk's (1998, 2006) theory of ideology. He defines ideology as “foundational beliefs that underlie the shared social representations of specific social groups. These representations are, in turn, the basis of discourse and other social practices. It has also been assumed that ideologies are largely expressed and acquired by discourse” (van Dijk 2006, p.121). In this sense, we consider ideology as the basis of entrepreneurial identity (van Dijk, 2006) as entrepreneurial discourse expresses, enacts and reproduces the social representation that entrepreneurs share about how they are appropriately entrepreneurial (van Dijk, 2006; Anderson and Smith, 2007; Zilber, 2007).

Entrepreneurial discourse is a spoken and written communicative interaction (van Dijk, 2006) that promotes what entrepreneurship does for society and the benefits it brings (Anderson and Smith, 2007). It provides reasons and arguments for general norms and values around the interests of the group and its members (van Dijk, 2006). In entrepreneurial discourse, the ideological values of entrepreneurs are explicitly formulated to specify the fundamental evaluative beliefs and principles that constitute the entrepreneurs' self-concept as "the authentic entrepreneur" (van Dijk, 2006; Anderson and Smith, 2007). This entrepreneurial identity provides exemplary images of entrepreneurial leaders who are compared to heroes (Hytti and Heinonen, 2013).

This legitimised figure of the entrepreneur is rooted in neoliberal ideology. It promotes the empowerment of people to embrace the entrepreneurial promises

of freedom and flexibility, improvement of socio-economic circumstances (Ogbor, 2000; da Costa and Saraiva, 2012; Scharff, 2016; Nicholls and Teasdale, 2017) through the creation of new opportunities and the implementation of new concepts in an uncertain and unknowable environment (Kuratko and Morris, 2018). Authentic neoliberal entrepreneurs are seen as heroes motivated by their ability to take risks, challenging circumstances through a positive attitude and emphasise their individuality (Anderson and Warren, 2011; Hytti and Heinonen, 2013; Scharff, 2016).

Entrepreneurial discourse explains that achieving these benefits results from (1) personal responsibility (Siivonen *et al.*, 2019) and (2) the exploitation of critical personal qualities/attributes to manage today's work environment (Leung and Cossu, 2019). At the heart of the entrepreneurial hero is a value system associated with innovation, risk, proactivity, market and opportunity, profit and personal drive (Parkinson and Howorth, 2008); but also the need for achievement, dominance, aggression, independence, courage, ambition, and lack of compassion and empathy (Hytti and Heinonen, 2013).

Entrepreneurial identities are rooted in the dynamic and flexible nature of ideology (Van Dijk, 2006; Leitch, Hill and Harrison, 2010; Leitch and Harrison, 2016) and are therefore highly sensitive to the multiple contradictory discourses (Watson, 2009; Yitshaki and Kropp, 2016; Muñoz and Cohen, 2018). This assumption suggests that not all entrepreneurs identify in the same way and to the same extent (van Dijk, 2006). The manifestation of contradictory entrepreneurial discourses (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018) exemplified what Van Dijk (1998, 2006) referred to as ideological variations among social groups. In this logic, the emerging discourses symbolically express opposition to the myth of the neoliberal hero (Anderson and Warren, 2011; Diochon and Anderson, 2011; Hytti and Heinonen, 2013).

Some entrepreneurs identify themselves as agents of social change (Hytti and Heinonen, 2013; Anderson, Warren and Bensemman, 2019), embracing more social and human-oriented identities (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018). Their entrepreneurial discourse moves between local government and community needs-based action and collective action for local change (Parkinson and Howorth, 2008; Diochon and Anderson, 2011). At the core of the ideological discourses of entrepreneurship, new norms and values such as transparency, integrity, sustainability, care for the environment, inclusion, and responsibility are emerging (Muñoz and Cohen, 2018). In what

follows, we refer to this as an emerging entrepreneurial discourse. We have named it so because recent research encourages us to think beyond the traditional meanings of sustainability (see Muñoz and Cohen (2018)). This conceptualisation denies the individualistic assumption of entrepreneurship (Drakopoulou Dodd and Anderson, 2007).

At the core of the variants of entrepreneurial ideology is our notion that entrepreneurial identity is a product of the identification process related to sameness (being like other entrepreneurs) and otherness (being different from another entrepreneur). The sense of belonging comes from agreeing with the values relevant to entrepreneurship. Identification may be more or less strong; if not, a dissociation process may occur (van Dijk, 1998, 2006), leading to contradictory entrepreneurial discourses. As we can see, in entrepreneurship, both neoliberal and emergent discourse are organised in such a way that they emphasise their core values and downplay the values with which they do not identify - discourse strategy (van Dijk, 2006).

We address the ideological entrepreneurial variations by mapping ideologies onto entrepreneurial discourse. We follow the notion of ideologies, which is usually expressed in terms of their underlying structures (van Dijk, 1998), such as values. Therefore, we propose two ideal types (Doty and Glick, 1994; Mair, Battilana and Cardenas, 2012) to represent ideological entrepreneurial discourses: neoliberal and emerging. We developed them based on their value structures (Kabanoff and Holt, 1996) which have been described in previous work related to entrepreneurial identities (Table 9). Our development highlights the use of espoused values as symbolic resources to manage the organisational identity (Kabanoff and Daly, 2000; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017) and to leverage perceptions of legitimacy and social desirability (Anderson and Warren, 2011; Autio *et al.*, 2014; Zahra, Wright and Abdelgawad, 2014).

For us, espoused values have the function of conveying how entrepreneurs make sense of the beliefs and principles of their ideological affiliation. In the identification process, because of their public nature, espoused values function as symbolic manifestations of those distinctive characteristics that organisations deem appropriate to convey publicly (Kabanoff, Walderssee and Cohen, 1995; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017) and represent societal expectations of who should be an entrepreneur. These values are explicit

statements in the oral or written form usually found in formal organisational documents and corporate websites (Dominick *et al.*, 2020).

We use the versatility of the espoused values' framework to address the paradoxical tension between economic and social-ethical orientation (Bourne, Jenkins and Parry, 2017). On the one hand, the economic orientation has business competence, productivity, and efficiency as its primary goal. Some value labels within this orientation are financial strength, being global, innovation, efficiency, or reliability. In contrast, the social-ethical orientation focuses on morality, community, and sustainability (Bourne, Jenkins and Parry, 2017). In this case, some examples are social responsibility, trust, support of others, care of context, or compliance (Kabanoff and Holt, 1996; Bourne, Jenkins and Parry, 2017). As shown in Table 9, we have linked the neoliberal discourse to the economic orientation in Bourne's (2017) framework, while the emerging discourses have been linked to the social-ethical orientation.

Table 10. Translation of ideological entrepreneurial discourses into espoused values structures

Ideological entrepreneurial discourse	Authors	Main meanings of the narrative	Boerne's values framework	
			Categories	Values
Neoliberalism	Surie and Ashley (2008) in Muñoz and Cohen (2018)	Traditional entrepreneurs may frequently feel the need to compromise their personal moral values in pursuit of profits	Financial	Reliability
		Within the discourse of new venture labour, workers are attracted to the digital creative sector because it is thought to be “cool, creative and egalitarian”.	Enterprise; Recognition	Creativity, fun, attitude
		Creativity, quality, changes and innovation	Enterprise, Quality	Innovation
	Leung and Cossu (2018)	Collaborative production, creativity, leadership skills.	Quality, Enterprise, Recognition	Leadership Individuality Responsiveness Resilience
	Siivonen et al. (2019)	Neoliberal individualistic discourse that emphasizes individual	Achievement, Ambition, Recognition	Confidence
	(see e.g. Siivonen and Brunila, 2014)	Responsibility, activity and creativity in the uncertain world of work	Enterprise	Independence
		homo oeconomicus as entrepreneur of himself	Ambition	Winning Leadership, Independence
		Ambition, calculation, accountability and personal responsibility (Du Gay, 1996; Rose, 1992)	Achievement, Ambition, Recognition	Challenge
Scharff (2016)	These statements demonstrate that the self as a business needs constant attention and that various aspects of the self – physical, mental and spiritual – are worked upon for optimization.		Tenacity	
	The importance of being active		Can do	
	Neoliberal philosophy of time where being idle is to be avoided (O’Flynn and Petersen, 2007)	Ambition	Courage	
	Since there are no limits to self-improvement, productive uses of time become paramount		Effectiveness	
	Self-optimization applies to various spheres of life	Quality Ambition, Achievement, Quality	Courage can do, leadership, individuality	
Leitch and Harrison, 2016	Bravery, ambition, success, autonomy, and self-sufficiency		Transparency, integrity, and responsibility, distributive justice, fairness, equity	
Munoz and Cohen (2018)	Transparency, integrity, and responsibility, distributive justice, fairness, equity	Equality; Collaboration, Partnership		

Table 11. Translation of ideological entrepreneurial discourses into espoused values structures (...continued

Ideological entrepreneurial discourse	Authors	Main meanings of the narrative	Boerne's values framework	
			Categories	Values
Emerging		They see themselves as local change-makers capable of creating better conditions for their business partners and the community in general	Sustainability	Making a difference, Community, Transparency, Responsibility, Fairness, Equity, Diversity, Inclusion
		(..) Freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility (Shepherd, Kuskova, and Patzelt 2009) direct their goals and frame their narratives and practices (Leiserowitz, Kates, and Parris 2006).	Collaboration; Sustainability	Tolerance, care for the environment, responsibility
	Kibler et al. (2015)	Sustainable entrepreneurs with a strong emotional place attachment	Partnership	Responsibility, Community, Diversity, inclusion, respect.
	Hytti (2013)	The humane entrepreneur associated with the females.	Collaboration	

As a result of the literature review summarised in Table 9, our theoretical templates develop the notion of discourse strategy, characterising each ideological entrepreneurial discourse by a dominant value orientation that defines the core beliefs and practises of entrepreneurs who identify with that discourse. Value structures shape each identity, emphasising their core values accordingly: financial, quality, enterprise, sustainability, partnership, safety, collaboration, equality, ambition, and recognition. However, this does not mean that there are no other values (Kabanoff, Waldersee and Cohen, 1995), only that the irrelevant values are not emphasised. Figure 6 suggests the values structures that characterised the two ideological entrepreneurial discourses that shape entrepreneurial identities.

Figure 5. Theoretical templates of ideological entrepreneurial discourses

Emerging		Neoliberal	
(++)	(+)	(++)	(+)
Sustainability	Financial	Financial	Sustainability
Partnership	Ambition	Ambition	Partnership
Safety	Recognition	Recognition	Safety
Customer	Enterprise	Enterprise	Customer
Equality	Quality	Quality	Equality
Collaboration	Achievement	Achievement	Collaboration

3.4 Methodology

3.4.1 Research setting, data collection and sample

Our sample consists of 800 websites of digital ventures in four European cities (London, Berlin, Paris, and Barcelona) that are considered top environments for digital businesses (Ohr, 2018). We define our sample size taking into account that while there is no general rule about the sample size required for cluster analysis, we choose to work with a number above the average sample size; this

is 698 items (Dolnicar, 2002). We extracted the dataset from Crunchbase, which includes more than 100,000 entrepreneurial ventures and is considered more accurate than other sources for small and medium enterprises and multinationals (Cumming, Werth and Zhang, 2019; Thies *et al.*, 2019). We used a stratified random sample, choosing to stratify by city, as our preliminary analysis suggests that this is consistent with cultural differences in value adoption across regions (Huggins and Thompson, 2014).

Our target ventures were those with a digital business model. We consider those ventures that conduct commercial transactions with their business partners and buyers over the Internet (Zott, Amit and Massa, 2011). Moreover, ventures' products and processes should be interconnected and integrated to deliver greater value to both customers and the ventures' internal processes (Weill and Woerner, 2013; Frank *et al.*, 2019). The most common technologies in the digital business environment are mobile devices and applications, analytics tools, capacity sharing platforms, and the Internet of Things (Luz Martín-Peña, Díaz-Garrido and Sánchez-López, 2018). We exclude the companies that use websites only to present information about products or services (Zott, Amit and Massa, 2011). Table 10 indicates the characteristics of the sample.

Table 12. Sample

Business Characteristics	N(%)	Mean	SD
Business Size	800	0,7875	0,75036
Micro	295 (36,9)		
Small	413 (51,6)		
Medium	59 (7,4)		
Large	33 (4,1)		
Business Age	800	0,8488	0,50616
Less than four year	172 (21,5)		
Between 5 to 9 years	577 (72,1)		
Greater than ten years	51 (6,4)		
Stage of funding	800	1,949	1,342
Pre Seed	164 (20,5)		
Seed	122 (15,3)		
Serie A	232 (29)		
Serie B	155 (19,4)		
Serie C	127 (15,9)		
International Operations	800	0,57	0,496
No International	345 (43,1)		
International	455 (56,9)		
Espoused values		8,66	4,95

Our primary data, espoused values, were collected over two months (July-August 2019). We conducted a content analysis to examine the presence of espoused values on the corporate website (Kabanoff and Daly, 2000, 2002;

Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017). Our purpose was to identify and describe patterns of espoused values (Kabanoff and Daly, 2000, 2002; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017) in these virtual locations. Nowadays, websites are considered a window that reveals underlying values, beliefs, assumptions, and social practises (Perren and Jennings, 2005; Bansal and Kistruck, 2006), such as entrepreneurial discourse (Garud, Gehman and Giuliani, 2014).

Data were collected using a traditional manual method to increase context sensitivity. It is believed that human coders are generally better able to assess the meaning of a word in a given context (Kabanoff and Daly, 2000). To avoid the disadvantage of the manual method, a content dictionary was created. The Oxford Business Dictionary supported it to ensure internal consistency due to language differences. The dictionary was based on that of Bourne *et al.* (2017), as it is one of the most comprehensive and recently developed inventories in the literature. In total, we obtained a database with 60000 binary codes. The average number of espoused values reported by the digital ventures in this study was 8.66. The most value reported by a company was 35, and the least was 1.

3.4.2 Research Approach and Data Analysis

In this step, similar to Kabanoff *et al.* (1995), a Quick Cluster was conducted using espoused values of digital ventures to test our theoretical templates for each ideological entrepreneurial discourse in the “real world”. Our selection was based on theory-driven clustering efficiency (Kabanoff, Waldersee and Cohen, 1995; Kabanoff and Daly, 2000; Kakati, 2003; Avlonitis and Salavou, 2007). We used it to classify digital ventures using the previously developed theoretical templates as criteria for clustering. It should be noted that the final solutions observed are real-world approximations of the theoretical templates (Doty and Glick, 1994; Kabanoff and Daly, 2000).

The procedure begins by determining the initial cluster centres for the different values categories. In our case, we used the value score of digital ventures by establishing the initial centre for each of the hypothesised value structures of the eleven cluster variables based on their theoretical templates. The established criterion for defining the centre of gravity and orientation in the value structures is that for a relatively strong value, the centre of the cluster was set to 1.5; similarly, the relatively weak value was set to 1.0. Thus, we define the neoliberal

entrepreneurial discourse as follows: financial (1,5), enterprise (1,5), quality (1,5), recognition (1,5), ambition (1,5), sustainability (1), partnership (1), customer (1), collaboration (1), safety (1) and equality (1). The emergent values, on the other hand, correspond to the structure: financial (1), enterprise (1), quality (1), recognition (1), ambition (1), sustainability (1,5), partnership (1,5), customer (1,5), collaboration (1,5), safety (1,5) and equality (1,5). Based on the set values, the procedure searches for cases that best approximate the original templates and assigns them using quadratic Euclidean distance measures (Kabanoff, Waldersee and Cohen, 1995).

We tested the clusters using a multivariate analysis of variance (MANOVA). This showed that the differences between the clusters for the value categories were significant in all cases ($p < .01$) except for achievement and equality (Table 11). The ability of the value categories to assign organisations to the correct clusters based on their value scores was determined using discriminant analysis. The results showed that 69.4 percent of the digital ventures were assigned to one of the ideological entrepreneurial discourses, including 70.7 percent (364/515) of the neoliberal and 67 percent (191/285) of emerging (Gupta, Hanges and Dorfman, 2002). In addition, we conducted a descriptive analysis at the level of value labels to extend our understanding of core values within the group (see Appendix).

Table 13 Entrepreneurial discourses Mean Scores for Values Categories

Values Categories	F	Level of Significance	Mean Entrepreneurial discourses	
			Neoliberal	Emerging
Financial	9,97	0	0,02	-0,37
Quality	106,9	0	0,61	-0,53
Enterprise	17,67	0	0,09	-0,41
Achievement	1,12	0,29	-0,14	0
Ambition	7,43	0,01	-0,11	-0,42
Recognition	12,72	0	0,19	-0,28
Sustainability	35,12	0	-0,29	0,52
Partnership	19,71	0	-0,28	0,35
Safety	3,88	0,05	-0,07	0,21
Customer	41,86	0	0,37	-0,45
Collaboration	7,77	0,01	-0,09	-0,37
Equality	0,19	0,66	-0,07	-0,13

3.5 Findings

3.5.1 Digital entrepreneurial identities: The ideological variations of entrepreneurship

During the cluster analysis, we identified the richness and complexity of value systems, which led us to present our findings on the premise of digital entrepreneurial identities as a product of the nested relationship between the ideology of digital entrepreneurship and local entrepreneurial discourses.

Our findings represent digital entrepreneurial identities that map the essence of the ideology of entrepreneurship (Figure 7). The theoretical templates applied to digital entrepreneurship addressed the fact that not all entrepreneurs identify in the same way and to the same extent (Van Dijk, 2006). Our ideological variations in entrepreneurship symbolically expressed the oppositions between neoliberal and emerging discourses. Although misalignment of templates was expected due to their theoretical nature (Doty and Glick, 1994), our "real-world approximations" revealed main patterns in the core values of each ideological variation that best characterised each digital entrepreneurial identity.

As shown in Table 12, we identified eight identities, distinguishing between four neoliberal identities: Homo-economicus, Neo-Taylorist, The Winner, and The Creative Worker; and four emerging-based: Supportive, Environmentally sustainable, Socially sustainable and Communitarian.

Table 14. Digital Entrepreneurial Identities by values categories

Values categories	Berlin		Barcelona		London		Paris	
	Homo-economicus (N=146)	Supportive (N=54)	Toyotist (N=109)	Environmentally sustainable (N=91)	The Winner (N=180)	Socially sustainable (N=20)	Creative Worker (N=80)	Communitarian (N=120)
Match	(1/12)	(12/12)	(5/12)	(3/12)	(3/12)	(8/12)	(9/12)	(3/12)
Financial	0,28	0,15	0,02	-0,37	0,10	-0,27	0,06	-0,29
Quality	-0,15	0,49	0,61	-0,53	0,06	0,00	0,41	-0,54
Enterprise	-0,14	0,93	0,09	-0,41	-0,03	-0,04	0,69	-0,42
Achievement	-0,26	0,58	-0,14	0,00	0,12	0,03	0,60	-0,41
Ambition	-0,01	1,00	-0,11	-0,42	-0,02	0,50	0,21	-0,21
Recognition	-0,07	0,64	0,19	-0,28	0,00	0,15	0,28	-0,37
Sustainability	-0,30	0,39	-0,29	0,52	-0,25	2,69	-0,09	0,05
Partnership	-0,20	0,67	-0,28	0,35	-0,31	2,76	-0,25	0,10
Safety	-0,12	0,02	-0,07	0,21	-0,04	0,40	0,30	-0,17
Customers	-0,01	0,56	0,37	-0,45	-0,12	-0,27	0,16	-0,12
Collaboration	-0,31	2,10	-0,09	-0,37	0,00	0,32	0,01	-0,27
Equality	-0,16	1,63	-0,07	-0,13	-0,15	0,41	-0,01	-0,21
	Neoliberal	Emerging	Neoliberal	Emerging	Neoliberal	Emerging	Neoliberal	Emerging

3.5.2 The Neoliberal-based digital entrepreneurial identities:

Our findings indicated the prevailing ideological hegemony of economic-business values. This evidence is supported by the more than 64 percent of digital ventures identified under the neoliberal theoretical variation of the ideological discourse. We found that the main categories of values emphasise finance and quality, while sustainability and partnership are weaknesses. Table 13 shows the common emphasised and non-emphasised values within the neoliberal entrepreneurial discourse strategy. The value patterns show us that digital entrepreneurial identities emphasise the values of agility, technology, effectiveness and speed. In contrast, we observed that the values of environmental protection, social responsibility, community, responsibility, making a difference, respect, developing others, empowerment, fairness, and inclusion are not emphasised as much.

Table 15. Core espoused values of Neoliberal-based Ideologies

Ideological entrepreneurial strategy by espoused values	Berlin	Barcelone	London	Paris
	Homo Economicus	Neo-Taylorist	Winner	Creative Worker
Emphasised				
Agility	0,01	0,28	0,01	0,17
Effectiveness	0,09	0,16	0,13	0,01
Technology	0,00	0,09	0,00	0,17
Speed	0,04	0,11	0,10	0,03
De- emphasised values				
Care for environment	-0,23	-0,26	-0,17	-0,15
Social responsibility	-0,24	-0,23	-0,27	-0,13
Community	-0,17	-0,22	-0,22	-0,23
Responsibility	-0,27	-0,17	-0,27	-0,20
Making a difference	-0,23	-0,11	-0,26	-0,24
Respect	-0,01	-0,16	-0,09	-0,01
Developing others	-0,07	-0,14	-0,04	-0,01
Empowerment	-0,06	-0,12	-0,07	-0,02
Fairness	-0,02	-0,13	-0,03	-0,14
Inclusion	-0,04	-0,15	-0,02	-0,08

Interestingly, digital entrepreneurial identities, shaped by neoliberalism, differ in the discourse strategy on respecting the cultural differences to which digital entrepreneurs are bound (Garud, Gehman and Giuliani, 2014; Huggins and Thompson, 2014; Dufva, 2017):

The Homo-economicus: With a clear and positive emphasis on financial values, neoliberal digital entrepreneurs in Berlin show their identification with a conservative view of entrepreneurship. This representation grounds values such as value for money and being global, but we also observed simplicity and confidence, emphasising the pursuit of profit. Remarkably, the strategy of entrepreneurial discourse at the heart of digital *homo-economicus* leaves out all other values, even those typically associated with entrepreneurship, such as innovation, creativity or passion. We have highlighted that excellence, transformation, care for the environment, teamwork, social responsibility, openness, winning, people, ethical practice, community or health are not at the forefront.

The Neo-Taylorist: in general terms, neoliberal digital entrepreneurs in Barcelona identify with the Taylorian principle of simplification and control of the work process. There is a particular focus on quality values; however, we have also observed a positive trend in customer, recognition, enterprise and financial values. This representation grounds values such as efficiency, service, agility, individuality, expertise, excellence, continuous improvement, commitment, professionalism, loyalty, and effectiveness. In contrast, there is a de-emphasis of courage, happiness, challenge, inspiration, pride, resilience or winning

The Winner: as observed in London, digital entrepreneurs identified with the notion of entrepreneurial leaders. The particular emphasis on achievement, financial and quality values reveals a discursive strategy that exploits the talent and qualities of the entrepreneur. The key values for this digital entrepreneurial identity are leadership, excellence, transformation and change, inspiration, being global, diligence, winning, effectiveness, fun and growth. This orientation contrasts with the de-emphasis on values in the partnership and sustainability categories, such as responsibility, social responsibility, making a difference, community, ethical practices, communication or care for the environment.

The Creative Worker: in Paris, neoliberal digital entrepreneurs hold up the flag of innovation and creativity. In a sense, they represent the entrepreneurial lifestyle. The discourse strategy emphasizes the categories of enterprise, achievement, quality, recognition, safety and customers. The core values that underpin this identity are innovation, creativity, winning, responsiveness, challenge, passion, individuality, transformation and change. At the same time, the de-emphasis is clear on commitment, health, making a difference, community, responsibility, care for the environment, fairness and social responsibility.

3.5.3 The Emerging-based entrepreneurial identities.

In contrast to our earlier findings, emerging-based identities can be seen as the antithesis of the hegemonic ideology of digital entrepreneurship. This ideological variation is echoed by emergent discourses that emphasise sustainability, partnership, and safety. Key-value patterns include: making a difference, accountability, responsibility, community, ethical practices, social responsibility and care for the environment. The emerging discourse strategy de-emphasises categories such as finance, quality and enterprise. In particular, value for money, simplicity and effectiveness. Table 14 shows the common values emphasised and de-emphasised within the neoliberal entrepreneurial discourse strategy.

Table 16 Core espoused values of Emerging-based Ideologies

	Berlin	Barcelone	London	Paris
Ideological entrepreneurial strategy by espoused values	Environmentally sustainable	Supportive	Socially Sustainable	Communitarian
Emphasised				
Makingadifference	0,24	0,57	2,08	0,11
Community	0,39	0,43	2,06	0,08
Socialresponsability	0,44	0,35	2,54	0,08
Responsability	0,26	0,66	2,69	0,06
Ethicalpractice	0,12	0,39	2,30	0,06
Accountability	0,13	0,41	1,79	0,03
Careforenvironment	0,64	0,25	1,58	0,03
De- emphasised values				
Simplicity	-0,23	-0,06	-0,24	-0,05
valueformoney	-0,24	-0,11	-0,19	-0,16
Effectiveness	-0,23	-0,10	-0,12	-0,21

Digital emerging-based entrepreneurial identities also distinguish among them in the discourse strategy on attending to the cultural differences to which the digital entrepreneurs are tied:

The Supportive: In Berlin, emerging digital entrepreneurs demonstrate their identification with the essence of inclusive entrepreneurship through a clear and positive emphasis on values such as collaboration and equality. The supportive digital entrepreneurs grounds values such as diversity, supporting others, empowerment, fairness, developing others, learning, people, openness and teamwork. This entrepreneurial discourse strategy generally de-emphasises values such as excellence, value for money, effectiveness, simplicity, and compliance.

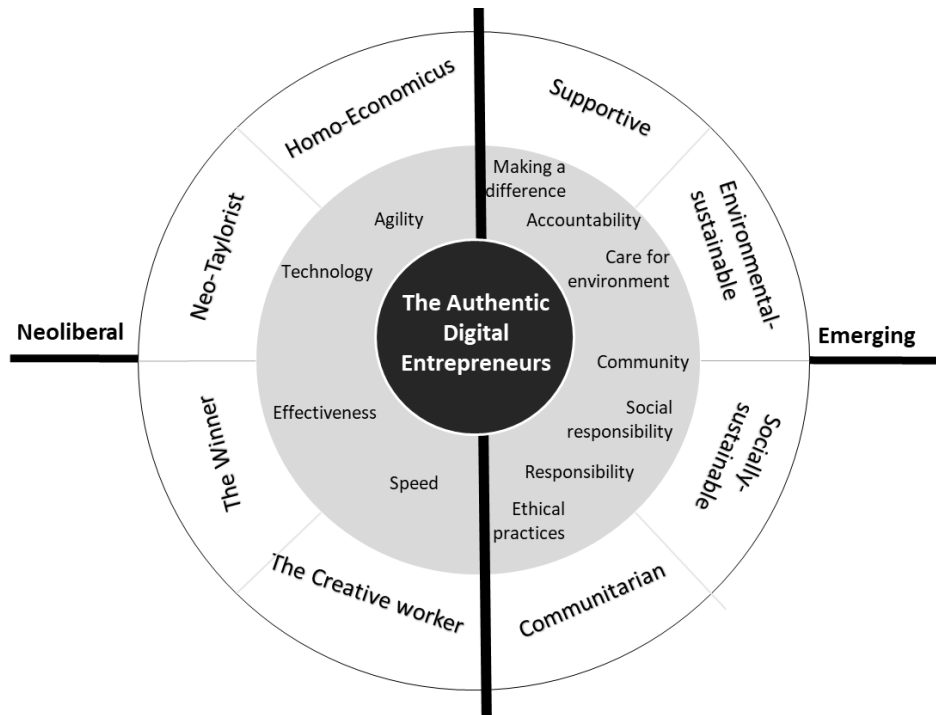
The Environmentally sustainable: in the case of Barcelona's emerging digital entrepreneurs, they identify with a strong interest in sustainability, partnership and safety. Their view of entrepreneurship is based on values care for the environment, social responsibility and community. However, we also observed that they do not emphasise as much the theoretical values of the emerging categories such as customers, collaboration or equality. In particular, service and teamwork. The discursive strategy also de-emphasises quality, finance, enterprise, ambition, or recognition as much. Instead, values such as growth, service, leadership, pride, passion, learning, stakeholders, reliability or value for money are emphasised.

The Socially sustainable: Emerging digital entrepreneurs in London are clearly characterised by values in the partnership and sustainability category. The socially sustainable entrepreneurs identify with a view of entrepreneurship based on a commitment to social responsibility. In particular, the discursive strategy emphasises the core values of responsibility, social responsibility, ethical practise, making a difference, community health accountability, and care for the environment. At the same time, we found that the values of the financial, enterprise and customer categories were de-emphasised. In particular, agility, service, professionalism, responsiveness, passion, simplicity, developing others, communication, expertise or value for money.

The Communitarian: With a positive trend to partnership and sustainability category values, the emerging digital entrepreneur in Paris identify themselves with a view of a re-invidicating vision of entrepreneurship. The communitarian discursive strategy emphasises making a difference, community, social responsibility, responsibility, ethical practice. On the contrary, the de-emphasis

is majorly in quality, enterprise, achievement, recognition or financial categories. The emphasis is on winning, people, agility, technology, creativity, continuous improvement, fun, ownership, being global, diligence, learning or effectiveness.

Figure 6. Digital entrepreneurial identities portrait by espoused values



3.6 Discussion and Conclusion

At the outset of this study, we looked at the portrait of digital entrepreneurial identities. Following van Dijk's (2006) statement about ideology as the basis of identity, we aimed to develop theoretical templates for ideological entrepreneurial variations. These "ideal types" result from mapping relevant values onto discourses. In general, we suggest that digital entrepreneurial identities are a product of the nested relationship between the ideology of entrepreneurship and the localised physical context. In particular, they empirically demonstrate the tension between neoliberal and emerging discourses and how digital entrepreneurial identities are contextualised representations of entrepreneurs' ideological identification.

The notion of the authentic digital entrepreneur is not universal. This finding is consistent with Drakopoulou and Anderson (2007) and their call to demystify the taken-for-granted figure of the entrepreneur. Our findings show that various digital entrepreneurial identities are shaped by the different values embedded in different local 'physical' contexts (Jack and Anderson, 2002; Huggins and Thompson, 2014; Leitch and Harrison, 2016). Local representations of entrepreneurship (Leitch and Harrison, 2016) encompasses “the societal traits and relations that underpin places in terms of prevailing mindset and the overall ‘way of life’” (Huggins and Thompson, 2014, 2016). Our findings reinforce that entrepreneurship is a social and spatial practise that takes on new meanings at different times and places (Hytti, 2005), even in a digital context.

In particular, our findings support the continued validity of the neoliberal social construction of entrepreneurship (Hytti and Heinonen, 2013). These digital entrepreneurs pursue certain "ideals" about how to be appropriately entrepreneurial in their local context (van Dijk, 2006; Anderson and Smith, 2007; Zilber, 2007), translating neoliberal principles into their social reality (Garud, Gehman and Giuliani, 2014). Thus, in Berlin, *homo-economicus* reproduces an image of conservative entrepreneurs focused on maximising economic efficiency (Maldonado-Bautista, Klein and Artz, 2021). In Barcelona, the case of the Neo-Taylorist shows us entrepreneurs driven by efficiency and effectiveness (Gautié, Jaehrling and Perez, 2021). In contrast, The Winner reflects that personal qualities such as leadership and a winning mindset are paramount among London entrepreneurs (Leung and Cossu, 2019; Siivonen *et al.*, 2019). On their behalf, digital entrepreneurs in Paris exude the start-up mindset - an entrepreneurial attitude combined with a deep understanding of the scalable, open, born-global and generative nature of digital technologies. (Delacroix, Parguel and Benoit-Moreau, 2019; Zaheer *et al.*, 2019).

Recent literature supports our neoliberal-based digital entrepreneurial identities (Ammirato *et al.*, 2019; Horst, Järventie-Thesleff and Perez-Latre, 2020; Rudic, Hubner and Baum, 2021). The characteristics of Italian digital entrepreneurs show that their main principles are independence and self-realisation, financial success, innovation and market orientation (Ammirato *et al.*, 2019). In particular, we observe that what Rudic *et al.* (2020) describe as "the hustle" is similar to our *homo-economicus* and The winner; their "the hipster" corresponds to our The creative worker, and their "the hacker" is comparable to our neo-Taylorist.

Moreover, in Horst et. al (2020) we also find references to our digital entrepreneurial identities. The similarities underpin the use of espoused values. Along these lines, the solution-driven identities fit with our Homo-economicus or Neo-Taylorist types, as both uses espoused values to convey a more organisational and strategic concern. Lifestyle-driven is related to our The Creative because they share values that encourage enjoying life and being creative. Finally, the Purpose-Driven type is similar to our Neo-Taylorist in that it is primarily concerned with values-based and creative technology development. Our findings extend these works from a cross-cultural perspective, offering more European references to understand how the local cultures contextualise the neoliberal-based digital entrepreneurial identities.

Although the hegemony of neoliberal discourse is still evident, we also observe the rise of opposing discourses that suggest a realignment of the principles and values that guide digital entrepreneurship. Hytti and Heinonen (2013) join our findings in extending the construction of an alternative, more human identities. The cliché associated with the digital entrepreneur as a young, well-educated, highly educated urban entrepreneur who benefits from influential social networks is resized (Delacroix, Parguel and Benoit-Moreau, 2019; Zaheer *et al.*, 2019).

Our findings reveal that new entrepreneurs distance themselves from typical neoliberal identities (Leung and Cossu, 2019). In a sense, our findings lead us to think about emerging identities as a contestation of the myth of the individualist entrepreneur (Drakopoulou Dodd and Anderson, 2007; Hytti and Heinonen, 2013). The emerging-based identities are underpinned by value structures embedded in a discourse concerned with the consequences of one's behaviour and will to achieve the collective interest (Smith *et al.*, 1998). The essence of these digital entrepreneurial identities describes activist entrepreneurs who express their sense-making and consciousness in purposeful actions to achieve responsible innovation beyond the creation of commercial value (Fuller and Tian, 2006; Waldron *et al.*, 2019).

Unlike the emerging-based identities ideologically based on values emphasising sustainability, partnership, or collaboration, entrepreneurs identified with different concerns depending on the social realities they are immersed in. In the case of Berlin, the Supportive manifests entrepreneurial mindset that embraces the principles of inclusion and equal access to opportunities for people from underrepresented groups (Commission, 2017). The general ideals of

sustainability frame the cases of digital entrepreneurial identity in Barcelona and London. However, as Muñoz and Cohen (2018) noted, there are nuances between the value systems in these discourses. On the one hand, The Environmentally sustainable embrace is relevant to conserving natural resources or waste reduction. On the other hand, The Socially sustainable identify with social goals and ethical practises. Finally, in Paris, The communitarian support the notion of collective entrepreneurship, as their values express an interest in the social improvement of their locality offering services that support the change of social norms and values(Burress and Cook, 2009).

Therefore, our findings suggest that the ideology behind digital entrepreneurship is by no means global and uniform but is reproduced through the local values of each context. Thus, each society forges its vision of the authentic digital entrepreneur. However, our study reveals' other identities' through the ideological identification of entrepreneurs reflected in the values embedded in their discourses. These challenge the hegemony of the different types of neoliberal entrepreneur. They show us that there are digital entrepreneurs who identify and present themselves as activists for responsible entrepreneurship and social impact. The question now is what these new identities mean: an exercise in disguising neoliberal values that reinforce emotional statements or a genuine shift towards a new entrepreneurial culture.

3.7 Theoretical and Empirical Contributions, Limitations and Further research

Our study seeks to contribute to the various calls for more research on identity as a symbolic expression of cultural understanding of new contexts, such as the digital context (Jones *et al.*, 2019). This study contends that a better understanding of entrepreneurial identities can be offered through the relationship between values, discourses and ideology. To this end, we build our analysis from the theory of ideology and operationalize it through the espoused values embedded in entrepreneurial discourses. Based on this logic, our results contribute in several ways. First, we confirm the hegemony of neoliberal value structures in the digital context; however, the emergence of new, emerging identities is evident and gaining momentum. Second, we show that the same discourse shapes different identities depending on the cultural context. Third,

we empirically explored the tension between neoliberal and emerging discourses.

Furthermore, we contribute to the current debate on the transformation of entrepreneurship by reflecting on new entrepreneurial identities and the future of entrepreneurial culture. On the other hand, we methodologically extend non-invasive qualitative methods to investigate the relationship between entrepreneurs and their contexts. In particular, we consider that espoused values can be a reliable source of individual bias and express the entrepreneur's institutional context.

Although our paper potentially provides helpful insights about digital entrepreneurial identities, it is convenient to address some of the study's limitations. The main limitation is that espoused values are not necessarily organisational practices and recommend viewing them with caution. Most of the time, organisations are not congruent between what they say is and what they do (Bourne and Jenkins, 2013; Zander, Jonsen and Mockaitis, 2016). Typically, practices tend to be espoused, but social desirability, fashion, and moral imperatives may lead to values being espoused, which are only rarely in use or vice versa for that matter, stereotypes could be seen as an instrument to manipulation (Suchman, 1995, p. 572).

Notwithstanding these limitations, our study theoretically provides an alternative lens to enhance our understanding of digital entrepreneurship and entrepreneurial identity work. Our focus on the ideology of entrepreneurship opens new avenues for theory building. Future qualitative research can analyse the underlying factors of entrepreneurial ideological affiliation in depth. Further research could also expand on the relationships between digital entrepreneurial identities and resource acquisition, talent attraction, or reputational effects.

Chapter 4: Legitimation in digital entrepreneurship

THE HOW

This chapter contributes to understanding the legitimacy of digital entrepreneurship. Such an endeavour is relevant as entrepreneurial legitimacy is a socially embedded process (De Clercq and Voronov, 2009). Researchers and practitioners need to understand better how AI startups can acquire resources (Zimmerman and Zeitz, 2002; Zott and Huy, 2007; Wang, Thornhill and De Castro, 2017) in a highly uncertain and fast-paced context such as the entrepreneurial ecosystems that enable Industry 4.0 (Nambisan, 2017; Park, 2018; Popkova and Sergi, 2020).

Taking into account our findings in Chapters 2 and 3, we understand a digital context that is strongly affected by the potential adverse effects of technological developments that lead to entrepreneurial identities being shaped based on discourses of responsible innovation. We can then conclude that entrepreneurial legitimacy has emerged *as a mechanism for digital ventures survival. Based on (1) their ability to endorse the commitment of actors in the entrepreneurial ecosystem to responsible innovation, and (2) the effective managerial control of the symbolic resources associated with the ethical principles that govern their entrepreneurial technological development.*

On the track to ethical guidelines for AI: The legitimation loops of AI entrepreneurship

Running title: The legitimation loops of AI entrepreneurship

Abstract

We integrate research on entrepreneurial legitimation and ethical principles through espoused values. This research explores how ethical guidelines help AI startups gain legitimacy for their AI development. We explore these ideas by tracking the values that AI startups espouse on their websites. Our four-stage mix-model method based on 40 websites in four European cities provided insights to develop a model that describes the flows that connect the two processes. We find and discuss that legitimation is a loop process characterized by sequential value thresholds that determine how AI startups overcome uncertainty and mistrust. This study reinforces the strategic importance of entrepreneurs in understanding their entrepreneurial context.

Keywords.- Digital entrepreneurship, Legitimacy, Values, AI-startups, Artificial Intelligence.

4.1 Introduction

As a social, contextual, and temporal phenomenon, entrepreneurship is shaped by technological progress (Anderson and Smith, 2007; Baker and Welter, 2020). AI-startups face a significant risk of failure related to the uncertainty surrounding the adoption of AI technologies (Mendoza, Rodriguez Alfonso and Lhuillery, 2021) and their multiple ethical issues (Jobin, Ienca and Vayena, 2019; Harwood and Eaves, 2020; Jia and Stan, 2021). This fact has implications for how AI-startups are structured and operate to survive and grow. (Chalmers, MacKenzie and Carter, 2021).

In this regard, the entrepreneurship literature agrees that a critical mechanism supporting the success of new ventures is legitimacy (Zimmerman and Zeitz, 2002; Zott and Huy, 2007; De Clercq and Voronov, 2009; Fisher *et al.*, 2017). For digital business models, social desirability is gained through an effective communication strategy that addresses the value systems held by established technologies (Garud, Gehman and Giuliani, 2014; Mendoza, Rodriguez Alfonso and Lhuillery, 2021). That is, ventures seek legitimacy through symbolic actions (Zott and Huy, 2007) because they are judged in accordance with stakeholder values (Anderson and Smith, 2007; Matusik, George and Heeley, 2008). It is unclear how this process works for AI startups, although they are at the centre of the ethical debate about what values should guide AI development and use (Etzioni and Etzioni, 2016; Kamishima, Gremmen and Akizawa, 2018; Jobin, Ienca and Vayena, 2019).

Then, our purpose is to understand the legitimacy of AI startups. We explore how ethical principles relate to the pursuit of legitimacy for AI startups' technological developments. Such undertaking is relevant because entrepreneurial legitimacy is a socially embedded process (De Clercq and Voronov, 2009), and researchers and practitioners need to understand better how AI startups can acquire resources (Zimmerman and Zeitz, 2002; Zott and Huy, 2007; Wang, Thornhill and De Castro, 2017) in a highly uncertain and fast-paced context such as the entrepreneurial ecosystems that enable Industry 4.0 (Nambisan, 2017; Park, 2018; Popkova and Sergi, 2020). Therefore, it is necessary to include explanations about the influence of context in shaping digital entrepreneurship, especially in AI startups (Anderson and Smith, 2007; Welter, 2011; Johns, 2017; Baker and Welter, 2020).

To this end, we nominate the role of espoused values as a bridge between AI startups and their entrepreneurial ecosystem. Espoused values are declarations

of what entrepreneurs deem to be important. Values underpin ethics and shape morals; they convey how entrepreneurs understand their entrepreneurial ecosystem. The methodological approach of this study is a mixed methodology that follows a sequential design in four stages: qualitative-quantitative-quantitative-qualitative (Johnson and Onwuegbuzie, 2004). In the first stage, we examine and categorize the espoused values represented on the websites of AI-startups. In this stage, we also took the opportunity to proceed with the espoused values collection and their linkage with ethical principles. We then clustered the data obtained in the previous stage. In doing so, we were primarily interested in examining the patterns of ethical principles. Finally, to extend the understanding of our observations on ethical principles and symbolic actions of AI startups on websites, we conducted a constant comparative analysis (Jack *et al.*, 2015) to examine extreme cases that confirm or refute the findings from the previous stages (Eisenhardt, 1989).

Our study allows us to describe the legitimation process of AI startups. It was found that legitimacy for AI entrepreneurship is a three-phase integrative process. Our analysis shows that it is a loop process characterized by sequential thresholds based on how AI startups consolidate ethical frameworks to become legitimized by the entrepreneurial ecosystem and obtain the resources they need to grow.

4.2 Theoretical framework

4.2.1 Digital entrepreneurship and AI-startups

The new generations of entrepreneurs are changing the rules of the game and disrupting markets with their digital business models (König *et al.*, 2019). Digital ventures are based on a continuous process of business model iteration (Nguyen-Duc, Shah and Amrahamsson, 2016); where software and data are the critical components of the business model (Zaheer, Breyer and Dumay, 2019); and with the potential for high and rapid scalability (Giones and Brem, 2017; König *et al.*, 2019; Zaheer *et al.*, 2019). The most common technologies in the digital business environment are mobile devices and applications, analytics tools, capacity sharing platforms, and the Internet of Things, Big Data, and AI (Luz Martín-Peña, Díaz-Garrido and Sánchez-López, 2018; Zaheer, Breyer and Dumay, 2019).

In our particular case, we focus on AI startups, defined as firms that align their organization to identify and exploit entrepreneurial opportunities through AI

technologies (Jia and Stan, 2021). The term AI refers “as intelligence demonstrated by machines (...) the examination of how digital computers and algorithms perform tasks and solve complex problems that would normally require (or exceed) human intelligence, reasoning, and prediction power needed to adapt to changing circumstances.” (Obschonka and Audretsch, 2020, p. 530).

The novelty of AI provides opportunities usually associated with human characteristics such as vision and speech, language processing, learning, and problem-solving to scale these functions through software. (Buhmann and Fieseler, 2021) to detect patterns that are imperceptible to humans (Chalmers, MacKenzie and Carter, 2021). Today, however, the exploitation of AI opportunities is hampered by insufficient capabilities to establish a well-organized AI management system and commercialize AI technologies (Mendoza, Rodriguez Alfonso and Lhuillery, 2021r. However, there is evidence that AI-startups scale faster than new traditional ventures traditionally do (König *et al.*, 2019; Chalmers, MacKenzie and Carter, 2021). In short, they are becoming more visible to investors. They are attracting significant venture capital funding (Chalmers, MacKenzie and Carter, 2021) despite being high risk/return (Santos and Qin, 2019), (Santos and Qin, 2019).

4.2.2 Entrepreneurial Legitimacy for Artificial Intelligence ventures: An integrative framework

In entrepreneurship, legitimacy is widely associated with entrepreneurial success in acquiring resources from the context for survival and growth purposes (Zimmerman and Zeitz, 2002; Shepherd and Zacharakis, 2003; De Clercq and Voronov, 2009; Überbacher, 2014; Lent *et al.*, 2019). The entrepreneurial legitimacy definition relies on Suchman’s seminar work. He stated that legitimacy is “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p.574). Nevertheless, as De Clercq and Voronov (2009) have nuanced, legitimacy in entrepreneurship should consider the essence of entrepreneurial behaviour: Innovation and change.

Therefore, legitimacy should be associated not only with the ability of entrepreneurs to comply with existing institutional arrangements (institutional legitimacy); but also with the ability to convey that they are innovators or change

agents (strategic legitimacy) (De Clercq and Voronov, 2009; Fisher, Lahiri and Kotha, 2016; Lent *et al.*, 2019). Within this integrative view, we understand legitimacy in entrepreneurship as a socially embedded process for securing the acquisition of resources (Zimmerman and Zeitz, 2002; Zott and Huy, 2007; De Clercq and Voronov, 2009).

Entrepreneurial legitimation is contingent upon where is enterprising and how ventures do it (Anderson, Warren and Bensemann, 2019). Recent research has found that entrepreneurs should understand the roadmap to adapt to the external expectations of their resource providers (Fisher, Lahiri and Kotha, 2016). Particularly in the case of technology-based entrepreneurial opportunities, these expectations are associated with sociocultural barriers to their adoption and the strategies used to address them (Mendoza, Rodriguez Alfonso and Lhuillery, 2021). Then, concerns about AI technology (Fisher, Lahiri and Kotha, 2016; Fisher *et al.*, 2017) and the communication strategies discussed below act as context and strategic actions for legitimacy purposes, respectively.

4.2.3.1 Context for Ai-Startup legitimacy: Entrepreneurship ecosystem and ethical principles

Context, that is, “situational or environmental constraints and opportunities that have the functional capacity to affect the occurrence and meaning of organisational behaviour” (Johns, 2006, p. 386, 2017, p. 577), plays a critical role in legitimizing AI technology. New ventures require multiple resource providers to successfully develop and grow (Fisher, Lahiri and Kotha, 2013). In this sense, entrepreneurial ecosystems gather the specific resources for the entrepreneurship process, such as start-up culture, entrepreneurial education, talent, support services, and financing capital (Isenberg, 2011; Spigel, 2015; Stam, 2015; Acs *et al.*, 2017; Fisher *et al.*, 2017).

Resource providers meet different expectations (Fisher, Lahiri and Kotha, 2013; Fisher *et al.*, 2017), but in the case of AI technologies, there is consensus toward responsible innovation (Jobin, Ienca and Vayena, 2019; Chalmers, MacKenzie and Carter, 2021; Mendoza, Rodriguez Alfonso and Lhuillery, 2021). AI-startups struggle with the pressure to understand whether and how it is possible to align AI technology with socially desirable goals (Etzioni and Etzioni, 2016; Brand and Blok, 2019) and change perceptions of AI technology and willingness

to accept it. In most cases, the pursuit of AI technology requires a profound cultural and social value shift before the technology will be adopted (Anderson and Smith, 2007; Mendoza, Rodriguez Alfonso and Lhuillery, 2021). It means leveraging the social desirability of AI technologies to ensure access to entrepreneurial resources.

Yet, to our knowledge, the social evaluation of AI technologies is associated with negative externalities as they disrupt our daily lives more rapidly (Furman and Seamans, 2019; Rich *et al.*, 2020). Fears harm human designs due to design choices and misuse (Obschonka and Audretsch, 2020; Chalmers, MacKenzie and Carter, 2021). It is no surprise that there are many hopes and concerns about the design, development, and deployment of AI technologies (Kamishima, Gremmen and Akizawa, 2018; Floridi, 2019).

As a human phenomenon (Harwood and Eaves, 2020), these technologies cannot be separated from their sociocultural sensitivity (Theodorou and Dignum, 2020), which is based on the crucial role of developers' value systems (Buhmann and Fieseler, 2021). For these reasons, AI technologies are susceptible to ethical judgments (Owen *et al.*, 2013). Entrepreneurial ecosystems evaluate AI-startups on the rightness or wrongness of an action in terms of the harms and benefits they produce (Rutherford, Buller and Stebbins, 2009). Just because an AI technology can do something does not mean that an AI-startup should do it (Chalmers, MacKenzie and Carter, 2021)

AI technologies involve assumptions about which users and uses are significant and not and how the technology will be used (Martin, Shilton and Smith, 2019). In other words, what values guide the operations of AI technologies (Etzioni and Etzioni, 2016) and what values society must prescribe (Rutherford, Buller and Stebbins, 2009). It requires contemporary ethical frameworks that make AI technology ethically acceptable (Ruggiu, 2019; Chalmers, MacKenzie and Carter, 2021), with the overarching aim of aligning these innovations with society's values, needs and expectations, and with a strong focus on addressing 'grand societal challenges' (Lubberink *et al.*, 2017; Owen *et al.*, 2021a). Ethical frameworks exist, but only in fairly narrow contexts (Owen *et al.*, 2013; Jobin, Ienca and Vayena, 2019). Most of them are published in developed countries, led by the United States, the European Union and the United Kingdom (Jobin, Ienca and Vayena, 2019). The ethical impact and implications debate currently revolve around how AI

technologies affect safety, health, privacy, and the environment (Jobin, Ienca and Vayena, 2019).

Although there are currently no standardized ethical principles for AI (EPAI) (Theodorou and Dignum, 2020), recent studies agree that a global convergence is emerging around five EPAI: Transparency, Equity and Fairness, Non-Maleficence, responsibility and Privacy (Jobin, Ienca and Vayena, 2019). Table 15 illustrates the link of these principles to broader societal and political specific ethical issues (Stahl, 2021).

Table 17 Ethical Issues related to AI

Dimensions of impact	Examples	Ethical principles
Economy		
(Un)employment	The potential of AI-related technologies to create a new wave of automation and thereby replace jobs has long been recognised	Justice and fairness
Economic (and by implication political) power	The reliance of current AI systems on large computing resources and massive amounts of data means that those organisations that own or have access to such resources are well placed to benefit from AI.	Responsibility and privacy
Big data for behavioural prediction	Questions of fairness when large companies exploit user data that has been expropriated from individuals without compensation.	
Structure the space of action of individuals	Thereby reducing the average citizen's ability to make autonomous choices.	
Governance & Public Administration		
Transformation of justice system	The use of AI for predictive policing or criminal probation services can broaden existing biases and further disadvantage parts of the population.	Freedom
Access to services	Thereby potentially further excluding segments of the population that are already excluded.	
Digital divide	Well-established categories of digital divides, such as the divides between countries, genders and ages, and between rural and urban, can all be exacerbated due to AI and the benefits it can create	
Civil rights		
Freedom	By providing or withdrawing access to information the technologies that surround us shape the space of possible action.	

Source: Based on Stahl (2021)

4.2.3.2 AI-Startups symbolic actions

According to the strategic view of legitimacy, if new ventures acquire resources, they should abide by the rules of the game of the context in which they exist (Zimmerman and Zeitz, 2002). To this end, new ventures strategically select the norms and values held by those who control the resources -the representatives of the entrepreneurial ecosystem (De Clercq and Voronov, 2009). These practises focus on the way entrepreneurs present themselves to resource holders (Gardner and Martinko, 1988) by creating ad hoc images through 'storytelling'(Lounsbury and Glynn, 2001). Legitimacy is thus created through symbolic actions(Zott and Huy, 2007).

Symbolic actions are those behaviours that aim to make ventures appear appropriate to their context, for example, by highlighting their beneficial aspects (Zott and Huy, 2007; Nagy *et al.*, 2012; Überbacher, 2014). The use of symbols - or meanings - validates and accepts actors within a cultural milieu. Symbols are evaluated according to emotions, preferences, and values that can influence the decision of resource holders (Zott and Huy, 2007).

In particular, AI-startups should overcome concerns about the uncertain impact on our daily life activities (Furman and Seamans, 2019) to avoid the significant risk of failure (König *et al.*, 2019). To this end, AI-startups engage in tactical communication (Mendoza, Rodriguez Alfonso and Lhuillery, 2021) based on discursive strategies (Garud, Gehman and Giuliani, 2014) to enhance the capabilities of AI technology (Mendoza, Rodriguez Alfonso and Lhuillery, 2021), taking into account accepted values related to positive change for society as a result of its implementation (Furman and Seamans, 2019; Obschonka and Audretsch, 2020). From this point of view, we consider that a good example of symbolic action is the use of espoused values as evidence for the legitimation process.

4.2.3 Espoused values as a driver for legitimacy

Living in the digital age means that social practices are also transferred to the "digital". In terms of legitimacy, symbolic actions now found on websites. These virtual locations are seen as windows that reveal underlying values, beliefs and assumptions (Perren and Jennings, 2005; Bansal and Kistruck, 2006). Here we can observe the most visible and accessible form of organizational values: espoused values (Bourne, Jenkins and Parry, 2017).

Espoused values are explicit statements in the oral or written form, usually found in formal organizational documents and on corporate websites (Dominick *et al.*, 2020). Therefore, this channel has been referred to as a good source of organizational information, mainly because organizations have control over what is uttered (Bansal and Kistruck, 2006; Jonsen *et al.*, 2015), as well as its role as a mechanism for portraying organizational image (Winter, Saunders and Hart, 2003; Brummette and Zoch, 2016).

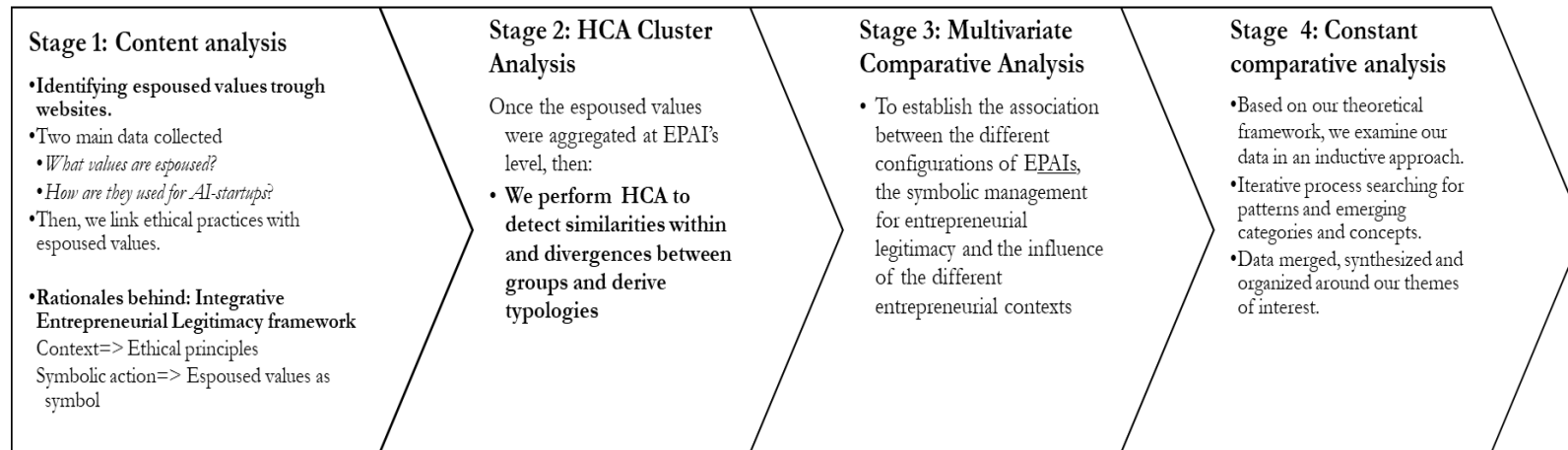
In the literature, they are associated with organizational legitimacy (Bourne and Jenkins, 2013; Jonsen *et al.*, 2015; Brummette and Zoch, 2016). According to Suchman's definition of legitimacy, publicly held values demonstrate conformity with the environment where they operate (Brummette and Zoch, 2016). They are exhibited by organizations to convey those that are congruent with the environment (Elsbach and Sutton, 1992; Suchman, 1995; Brummette and Zoch, 2016), to create an image (Grunig, 1993; Bansal and Kistruck, 2006) that reflects the social desirability of organizations (Hofstede, 1984; Bourne, Jenkins and Parry, 2017) and to enhance their reputation and legitimacy (Kabanoff and Daly, 2000).

In other words, digital entrepreneurs use espoused values that are consistent with stakeholder expectations (Olkkonen and Luoma-Aho, 2015). Therefore, espoused values are considered an instrument that enables organizations to achieve legitimacy (Hofstede, 1984; Gray and Balmer, 1998; Kabanoff and Daly, 2000; Schein, 2004; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017).

4.3 Methods

The methodological approach in this study is a mixed methodology that follows a sequential design in four stages: qualitative-quantitative-quantitative-qualitative (Johnson and Onwuegbuzie, 2004; Evans, Coon and Ume, 2011). We illustrate our process in Figure 8. In the first stage, examine and categorize the espoused values of the websites of AI ventures. Following our conceptualization, espoused values are a reliable construct to map symbolic management to entrepreneurial legitimacy (Zimmerman and Zeitz, 2002; Zott and Huy, 2007), we conducted a content analysis of websites to investigate the process of entrepreneurial legitimacy (Vestergaard and Uldam, 2021) and observe EPAIs (Jobin, Ienca and Vayena, 2019) through espoused values (Chun, 2019; Dominick *et al.*, 2020). At this stage, we also took the opportunity to continue the espoused values and their association with ethical principles.

Figure 7. Mix-method analytical process



We then proceeded to cluster the data obtained in the previous stage. In doing so, we were primarily interested in examining the patterns of ethical principles. Finally, to expand the understanding of our observations about ethical principles and symbolic actions of AI startups on websites, we conducted a constant comparative analysis (Jack *et al.*, 2015) to examine extreme cases that confirm or refute the findings from the previous stages (Eisenhardt, 1989).

4.3.1 Data collection based on a content analysis of websites

Our sample consists of 40 AI startups in four European cities (London, Berlin, Paris, and Barcelona) considered leading entrepreneurial ecosystems for AI startups. We extracted the dataset from Crunchbase, which is considered one of the most accurate cross-sectional databases for small and medium-sized enterprises and multinational companies (Cumming, Werth and Zhang, 2019; Thies *et al.*, 2019).

Our main criteria for inclusion were that (1) the business model of the venture was based on artificial intelligence (König *et al.*, 2019), and (2) they were involved in a financing round (Fisher, Lahiri and Kotha, 2016) which is considered an indicator of financial resources. In addition, we included different geographical areas to capture the characteristics of the entrepreneurial ecosystem (Spigel, 2015). Table 16 shows the characteristics of the sample.

Table 18. Sample

Entrepreneurial ecosystem		M	SD
Barcelone (n=9)	Year	2014	2,65
	Business Age	4,67	2,65
	Size2	0,56	0,73
	Stage of growth	0,33	0,50
	Total espoused values	7	2,17
Berlin (n=10)	Year		
	Business Age	4,90	1,37
	Size2	0,70	0,48
	Stage of growth	0,70	0,48
	Total espoused values	12	9,01
London (n=9)	Year	2013	1,17
	Business Age	6,11	1,17
	Size2	1,22	1,09
	Stage of growth	0,89	0,33
	Total espoused values	13	4,64
Paris (n=12)	Year	2014	1,72
	Business Age	5,33	1,72
	Size2	0,67	0,49
	Stage of growth	0,75	0,45
	Total espoused values	10	3,77

Our primary data, espoused values, were collected over two months (July-August) (Kabanoff, Walderssee and Cohen, 1995; Jonsen *et al.*, 2015). We accepted this framework specifically because it encompassed and compared existing organizational values frameworks, highlighting the need for an inventory based on the terms used by organizations and the fact that previous studies were conducted more than 20 years ago (i.e., Kabanoff et al. (1995) (See Appendix 1).

Two main pieces of data were collected: (1) what values are espoused through the website and (2) how the AI-startups use espoused values to present themselves, their goals, their philosophy, and principles. The data was collected using a traditional manual method to increase context sensitivity. It is believed that human coders are generally better able to judge the meaning of a word in a given context (Kabanoff and Daly, 2000). Therefore, a content dictionary was established to avoid the disadvantages of the manual method. The Oxford Business Dictionary supported it to ensure internal consistency due to language differences.

In total, we obtained a database with a total of 3000 binary codes. The average number of espoused values reported by the AI-startups in this study was 8.66. The most values reported by a company was 35, and the least was 1.

4.3.2.1 From Ethical Principles to Espoused values

Once we obtained our raw data, we applied our integrative framework of entrepreneurial legitimacy for AI-startup based on the context—ethical principles— where these organisations exist and the symbolic actions—use of espoused values as symbols— they carry out to be desirable. Then, we used The Global landscape of AI ethics guidelines (Jobin, Ienca and Vayena, 2019) as a coding framework. First, nine dimensions of ethical principles (justice & fairness, non-maleficence & privacy, beneficence & solidarity, responsibility & accountability, freedom & autonomy, sustainability, respect & dignity, trust, and transparency) were defined. Table 17 depicts the ethical principles and their 22 associated espoused values.

The ethical principles were coded according to their definitions (Jobin, Ienca and Vayena, 2019). The raw frequency of these 22 words on each website was first recorded and aggregated at the level of the nine ethical practices. Then, these variables were converted into binary vectors of attributes (with 0 and 1 to represent either a category absent or present). Finally, these data results were grouped into different configurations of ethical practices currently used by AI startups.

Table 19 Coding Framework Ethical Guidelines Principles for AI into Espoused Values

Ethical Principles for AI		Espoused values	No. (%) of AI-startups which code =1
Transparency	"(...) is presented as a way to minimize harm and improve AIAI."	Transparency	12 (30)
Justice and Fairness	"(...) prevention, monitoring or mitigation of unwanted bias and discrimination, (...) respect for diversity, inclusion and equality."	Diversity Inclusion Life quality Communication	11 (27,5)
Non-maleficence & Privacy	"(...) general call for safety and security." "(...) privacy both as a value to uphold and as a right to be protected."	Security Compliance Prudence	8 (20)
Responsibility and accountability	"(...) includes acting with integrity (...) responsibility and legal liability	Responsibility Accountability Ethical practice Integrity	8 (20)
Beneficence & Solidarity	"(...) promoting good (...) augmentation of human senses, promotion of human well-being and flourishing peace and happiness, creation of socio-economic opportunities and economic prosperity." "(...) They underline the need for redistributing the benefits of AI in order not to threaten social cohesion, and respecting potentially vulnerable persons and groups."	Community Social Responsibility Health	9 (22,5)
Freedom and autonomy	"(...) promote freedom, empowerment, or autonomy. Some documents refer to autonomy as a positive freedom, specifically the freedom to flourish, to self-determination through democratic means)	Confidence Independence Empowerment Democracy	13 (32,5)
Trust	"(...) References to trust include calls for trustworthy AIAI research and technology, trustworthy AI developers and organizations, trustworthy "design guidelines", or underline the importance of customers' trust."	Trust	4 (10)
Sustainability	"(...) To the extent that is referenced, AI sustainability calls for development and deployment of AI to consider protecting the environment, improving the planet's ecosystem and biodiversity, contributing to AI fairness and equal society and promoting peace."	Care for environment	2 (5)
Dignity & Respect	"(...) It is argued that AI should not diminish or destroy, but respect, preserve or even increase human dignity."	Respect	1 (2,5)

4.3.2 Data analysis and results

4.3.2.1 Clustering

Building on the content analysis results (Table 17), we used a hierarchical cluster (HCA) to determine the underlying patterns of cohesion among EPAIs. Cluster analysis is widely used in entrepreneurship research to identify similarities within and differences between groups and derive typologies. For example, it has been conducted to identify environmental clusters (Zahra, 1993), success criteria for high-tech start-ups (Kakati, 2003), entrepreneurial orientation profiles of SMEs (Avlonitis and Salavou, 2007), types of social entrepreneurship models (Mair, Battilana and Cardenas, 2012) or the emergence of organizational forms (Powell and Sandholtz, 2012).

HCA was conducted using Ward's method to select the appropriate number of clusters and obtain the estimated centroids (Kakati, 2003; Mair, Battilana and Cardenas, 2012). The distances between clusters were measured using Euclidean distances. Four clusters emerge from our analysis. The criteria adopted to decide on a four-cluster solution were the analysis of the resulting dendrogram (Bigliardi, Nosella and Verbano, 2005) and a two-step cluster analysis (Mair, Battilana and Cardenas, 2012).

Table 18 shows the 'cluster' profile and reports the between and within-cluster means and analysis of variance. The test showed that four clusters were statistically different from each other in seven out of nine ethical principles, except for 'Justice and fairness' and 'transparency'. We also found that the guidelines 'Freedom and Autonomy' and 'Beneficence & Solidarity' have the highest influence on the profile cluster ($F=30.97$ and $F=14.744$ respectively), while 'Trust' has the lowest influence.

Table 20. HCA analysis

EPAI Clusters	Mean and Frequencies				ANOVA			
	C1 (n=12)	C2 (n=10)	C3 (n=9)	C4 (n=2)	Mean Square between groups	Mean square within groups	F	Sig.
Justice & Fairness	0,50	0,30	0,00	0,00	2,244	0,819	2,740	0,061
Non maleficence & Privacy	0,42	0,00	0,00	0,00	2,693	0,613	4,394	0,011
Beneficence & Solidarity	0,00	0,60	0,00	1,00	6,698	0,454	14,744	0,000
Responsibility & Accountability	0,25	0,10	0,00	1,00	3,573	0,662	5,398	0,004
Freedom & Autonomy	0,08	0,90	0,00	1,00	8,175	0,264	30,967	0,000
Sustainability	0,00	0,00	0,00	1,00	12,855	0,000	4,148	0,000
Respect & Dignity	0,00	0,00	0,00	0,50	6,263	0,690	9,081	0,000
Trust	0,00	0,30	0,00	0,50	3,305	0,971	3,402	0,031
Transparency	0,50	0,20	0,00	0,50	2,237	0,817	2,740	0,061

Each group is distinguished by (1) the most representative ethical principle and (2) the number of ethical principles that characterise it. These results show us the differences in how AI-startups manage their symbolic actions by highlighting the ethical principles that best fit their context. For example, cluster 1 (C1) is primarily characterised by four ethical principles: justice and fairness, transparency, non maleficence & privacy. This indicates a context primarily concerned with monitoring or mitigating unwanted bias and discrimination, respecting diversity, inclusion and equality, safety. AI should never cause foreseeable or unintended harm and promoting trust in these types of developments.

Cluster 2 (C2) is characterised by six ethical principles, the most important of which are freedom and autonomy, beneficence and solidarity. This cluster reflects a concern for freedom of expression and self-determination through democratic means (i.e., freedom to withdraw, decision-making power, or freedom from technological experimentation and manipulation). Here we also observe a statement in favour of human well-being and flourishing.

The distinctive feature of cluster 3 (C3) is the absence of ethical principles. Finally, Cluster 4 (C4) is characterised by seven ethical principles, the most important of which are beneficence & solidarity, responsibility and accountability, freedom and autonomy, and sustainability. The main difference with the other clusters is that this cluster includes new concerns about ethical issues related to acting with integrity and clarifying the allocation of responsibility and legal liability or interest in protecting the environment, improving the planet's ecosystem and biodiversity (Jobin, Ienca and Vayena, 2019)

4.3.2.2 Multiple Correspondence Analysis

We conducted a multiple component analysis (MCA) to determine the association between different configurations of EPAIs, symbolic actions for entrepreneurial legitimacy, and the influence of different entrepreneurial contexts. This method is popular for cross-cultural studies and seems scarce in the business ethics literature (Chun, 2019) and entrepreneurship research (Holzmann *et al.*, 2017). MCA benefits from its particular ability to group categorical variables, measure their relative proximity or similarity, map the columns and rows simultaneously (An and Alarcón, 2021), and provide a graphical representation through the use of a perceptual map (Hair, 2009; Holzmann *et al.*, 2017).

Specifically, we applied MCA based on the four-cluster solution (C1, C2, C3, C4) to capture and compare the similarities in how ethical principles are espoused by AI- startups in different geographies. We included categorical variables from our previous content (Table 19). The symbolic action categories for entrepreneurial legitimacy are explained by the location of espoused values location across websites, if they were explicitly used, their explicit use, and the nature of their purpose.

Moreover, the growth stage has been included in entrepreneurial legitimacy as critical resource acquisition (Zimmerman and Zeitz, 2002; Zott and Huy, 2007). Indeed, we consider all firms that are in the pre-seed (50k-250k€) and seed (1-4 million€) financing stages as nascent, while start-ups fall into the A (+/-14 million€), B (+/- 40 million€) and C (+/- 59 million€) series. Finally, the entrepreneurial ecosystem responds to the underlying geographic differences in ethical principles embeddedness reported by Jobin et al. 2019 (Jobin, Ienca and Vayena, 2019).

Table 21. Categorical variables used for MCA

Results of web content analysis and clustering	Descriptive label	Frequencies (%)
Symbolic management for Entrepreneurial Legitimacy		
Websites values location	About us	18 (55)
	Careers	10 (30)
	Across the web	5 (15)
Espoused values explicitly	Explicit	7 (21)
	Implicit	26 (79)
Espoused values usage	Descriptive of the product of firm attributes	13 (39)
	Philosophic	6 (18)
	Talent attraction	1 (3)
	Multipurpose	13 (39)
Espoused values purpose	Utilitarian	20 (61)
	Moral	13 (39)
Entrepreneurial Ecosystem	Barcelona	8 (24)
	Berlin	8 (24)
	London	8 (24)
	Paris	9 (27)
Stage of growth	Nascent venture	9 (27)
	Start-up	24 (73)
Ethical Practices for AIAI Clusters	C1	12 (30)
	C2	10 (25)
	C3	9 (22,5)
	C4	2 (5)

Instead, interpretation can be made between rows and between columns-left to right (along the x-axis) and top to bottom (along the y-axis) to interpret positioning maps. The axis numbers give a weighted average of the chi-squared distances between the row or column profiles and the average profile, with the midpoint being 0. It is common practice to plot the coordinates in correspondence analysis, and the numbers on the axis in the traditional sense are less useful in such an output (Greenacre 1993).

Our MCA analysis of the 22 variables yielded a two-dimensional solution based on the concept of the predominance of the first two dimensions in terms of explained variance (Gifi, 1996). Our analysis shows good explanatory power with a percentage of variance of the two dimensions of 66,20% (Table 20). The internal reliability for the first dimension is 0.75 and for the second dimension 0.66.

Table 22. Eigenvalues

Eigenvalues	Dim. 1	Dim. 2
Alfa de Cronbach	0,75	0,66
Inertia	0,37	0,30
Percentage of variance	36,7%	29,5%
Cumulative percentage of variance	66,20%	

The discrimination measures (Table 21) indicate which variables best discriminate against each dimension. The discrimination scores that are higher than the mean and best discriminate each dimension are highlighted in bold. On this basis, we tentatively named Dimension 1 "Geographical distribution of EPAI's". We found that the entrepreneurial ecosystem, EPAI's clusters and growth stage mainly explain this dimension, although we retained variables with low discriminatory power for deeper analysis. While Berlin and Barcelona are on the positive side of the dimension, startups there are still in the early stages of defining ethical frameworks (C1, C3); in London and Paris, startups are more sensitive to EPAIs (C2, C4). For us, Dimension 2 can better define "Symbolic actions". We observed contrast between the use of espoused values as a moral guide and their explicit application. Thus, we can see that the negative part of the dimension contains those startups who use morally espouse values by explicitly expressing them. In contrast, in the positive part of the axis are those entrepreneurs who make utilitarian and implicit use of espoused values.

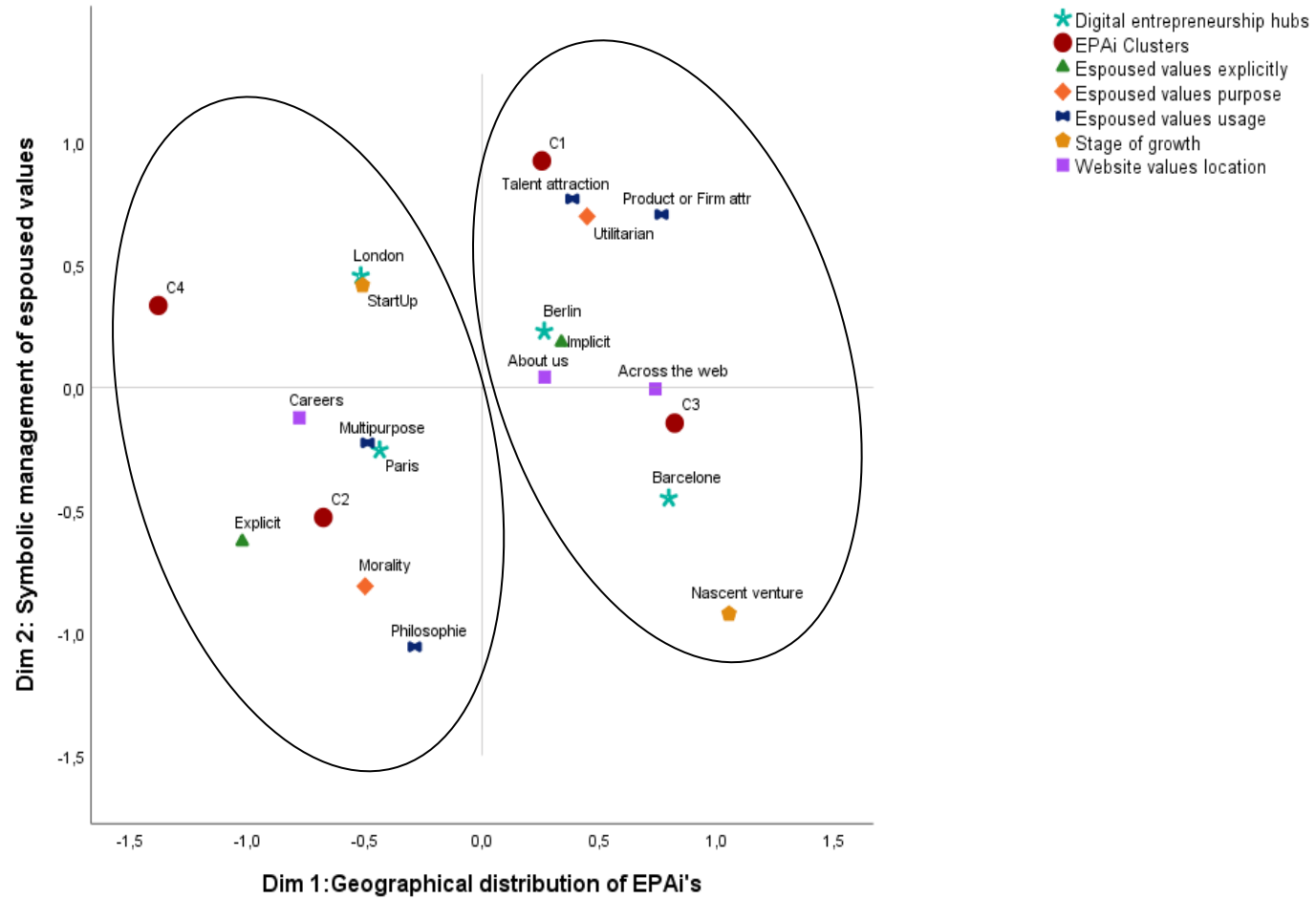
Table 23 Discriminant measures

Variable	Dim. 1	Dim. 2	Mean
Entrepreneurial ecosystems	0,58	0,13	0,20
EPAI Clusters	0,54	0,39	0,46
Stage of growth	0,42	0,01	0,16
Website values location	0,35	0,12	0,24
Espoused values explicitly	0,32	0,41	0,36
Espoused values usage	0,22	0,57	0,40
Espoused values purpose	0,38	0,34	0,36

*Ratings higher than the means

Figure 9 illustrates the output of the MCA by positioning the EPAIs, the symbolic management of espouse values and the entrepreneurial ecosystem within the same space. As observed, the map suggests that the distribution of EPAI's clusters points to two different models for digital entrepreneurs to legitimise their AI developments. Accordingly, there is a first model group of new ventures with no signs of further EPAI's (C3) and those that we understand to be at an early stage of defining the ethical framework of their technological development (C1). On the other hand, start-ups in the middle (C2) and mature (C4) stages of EPAI's consolidation gather. We have referred to them as business and moral frameworks, respectively.

Figure 8. Positioning map for Ethical Guidelines for AI and Symbolic management of entrepreneurial legitimacy



4.3.2.3 Constant comparative analysis

Based on the MCA results, the next step was to examine the rich data on the symbolic actions of AI start-ups on their websites using the constant comparison technique (Jack *et al.*, 2015). Legitimacy as a social process requires a qualitative research process because of the “intensive investigation of developmental patterns” (Larson 1992:79). We decided to explore the previously identified models in more detail by following Eisenhardt's (1989:537) recommendation for a theoretical sampling approach (cf. Strauss and Corbin, 1998) that includes four to ten extreme cases where the phenomenon of interest is 'transparently observable'. In our case, 14 cases were selected, allowing us to conduct a multi-perspective analysis that takes into account the voice of the AI-startups but also the relevant groups of actors and the interactions between them (Jack *et al.*, 2015), which allows us to capture the legitimation process of legitimation (Eisenhardt, 1989; Zott and Huy, 2007; Jack *et al.*, 2015)

We collected our data by analysing 177 websites of AI-startups websites layers. The primary resources we examined were the business press, business plans, presentations and mini-cases written by entrepreneurs to promote their products and press announcements. However, as the analysis progressed, it became apparent that we needed to include a further 80 pieces of information from partners and supporters of the AI start-ups. These sources allowed us to triangulate our MCA results to build robust interpretations (Yin, 1984).

As mentioned elsewhere, legitimacy in entrepreneurship is linked to acquiring resources. Our data collection provided qualitative and quantitative data on resource holders' perspectives. EPAIs as observable symbolic actions for legitimacy purposes reveal the actors, flows, and trajectories of legitimacy to us. Through the iterative process of our analysis, we identified the crucial role of the entrepreneurial ecosystem (De Clercq and Voronov, 2009) and entrepreneurs' control over their symbolic resources (Zott and Huy, 2007) in the survival of AI-startups (Fisher *et al.*, 2017).

Table 24. Sample for constant comparative analysis

Cluster	Entrepreneurial ecosystem	Age of Business	Size	Business activity
C3	Barcelona	5	11 to 50	AI for health
	Berlin	3	<10	AI for marketing
	London	7	<10	AI for travel and leisure
	Paris	8	<10	AI for management
C1	Barcelona	3	101 to 250	AI for cybersecurity
	Berlin	4	51 to 100	AI for management
	London	3	11 to 50	AI for marketing
	Paris	5	11 to 50	AI for legal
C2	Barcelona	5	<10	AI for education and learning
	Berlin	4	51 to 100	AI for health
	London	4	11 to 50	AI for education and learning
	Paris	6	11 to 50	AI for management
C4	London	6	11 to 50	AI for marketing
	Paris	11	11 to 50	AI for marketing

We analyse our data using an inductive approach. Following Jack et al. (2015) procedure, we first sifted through all the data and compiled what seemed most relevant. The second step was to look for patterns. This process involved the constant comparative method of an iterative review of the data with emerging categories and concepts. This method has become an accepted approach to address the social perspective of entrepreneurship (Smith, 2017; Anderson, Warren and Bensemman, 2019) and the digital one (Martinez Dy, Martin and Marlow, 2018).

The new data we obtained from our archival sources were brought together, synthesised and organised around the themes of our interest: symbolic actions for legitimacy purposes and their connection to ethical principles. This method allowed us to categorise our raw data and place it into explanatory categories. We analysed the data using Atlas.ti 9, comparing and contrasting patterns to determine categories. It meant that the observations and content of the websites were continuously compared to the emerging categories.

We refined these patterns into descriptive categories and became analytical categories. These iterative processes were inductive and were contrasted by the research team. Next, we focused our attention on how these categories helped to explain the process of legitimation. Finally, we integrated our explanatory categories into an integrative conceptual framework. This process is illustrated in Figure 9 and Table 23.

Figure 9. Analytical process

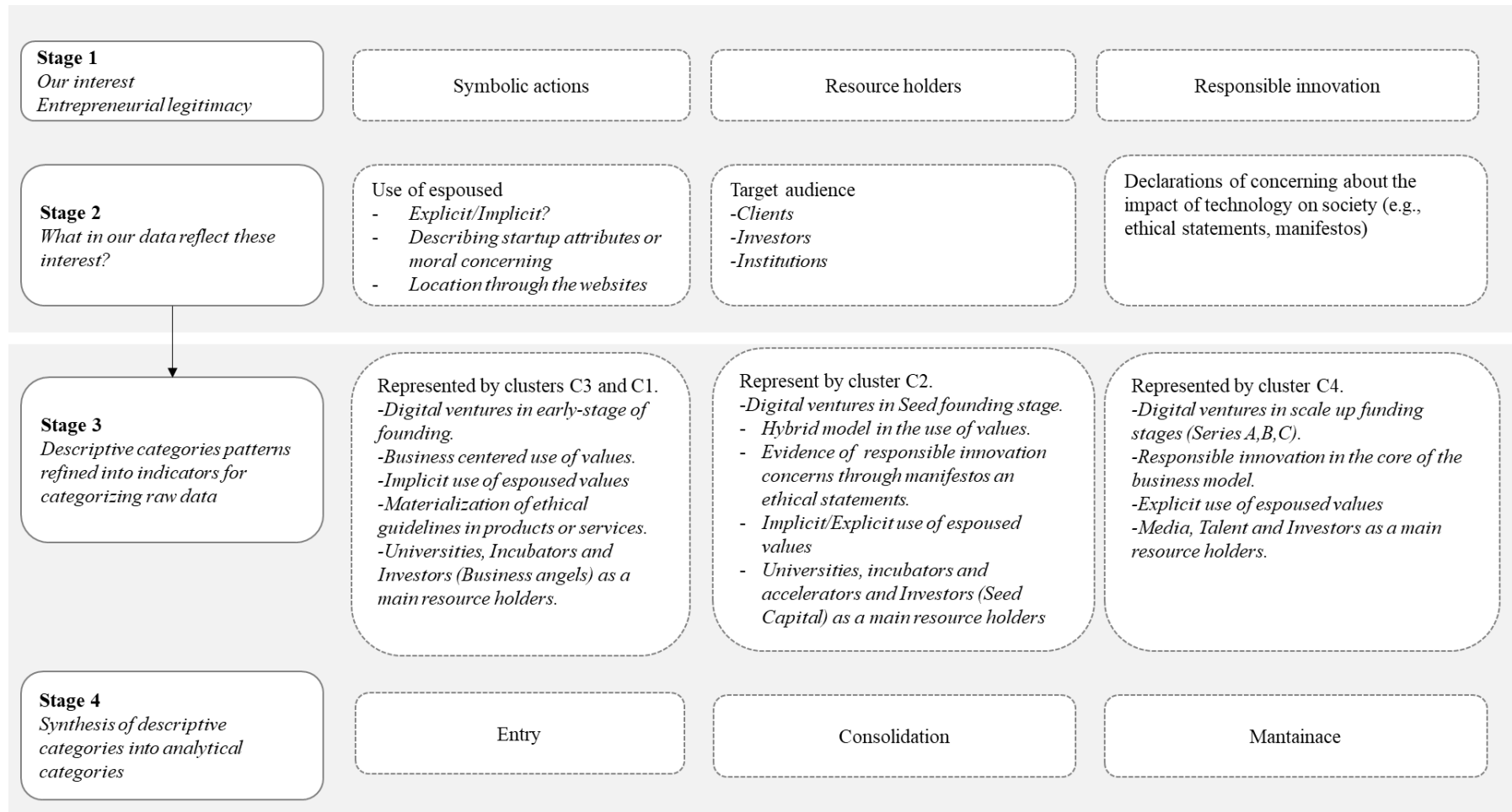


Table 25. Moving from descriptive to analytical categories: Main findings

Stage 3 <i>Descriptive categories</i>	Data source utilized	Examples from these data sources which 'identify the phenomena'	Summary of findings- Whats the story?	Stage 4 <i>Synthesis of descriptive categories</i>
Phase 1 (C3 & C1)	<i>Digital ventures' website layers:</i> Starting/ Product or services	<i>Implicit use of espoused values</i> associated with ethical guidelines to describe business proposal values.	Business-centered business model, ethical guidelines underlies materilized as a product or services.	Entry
	About us	<i>Technology solving real-world pain</i> Description of firm attributes; superiority of technology over humans		
	Partnerships, Collaborations*	<i>Exhibition of their vinculation and support</i> from Universities, Research Institutes, Incubators, Accelerations and Investor.	Institutional support	
	<i>Partners' websites* layers:</i>	Actors of the entrepreneurial ecosystem with the capacity to <i>institutionalise new "rules of the game" about responsible innovation</i>	New institutional arrangements regarding responsible innovation as a pre-condition of entrepreneurial legitimacy	
	Universities and Research institutes	Innovation detection and technology transfere.	Institutional legitimacy triangle: Transference of institutional values and ethical concerns towards digital ventures.	
	Incubators and Accelerators	Promotion of Initiatives for technology for good Ethical statements and manifestos as a mechanism for normative institutions (e.g ESG or Manifestos)	"Doing tech-ecosystem" based on responsible innovative organizations	
	Investors (e.g Business angels)			
Phase 2 (C2)	<i>Digital ventures' website</i>	Emerging <i>explicitly of espoused values</i> to announce responsible concerns	Hybrid model in the use of espoused values; rising of specific sections and accounts to prono	Consolidation
	Starting			
	About us			
	Product or services			
	Our Values/ Our Philosophie	<i>Consolidation of responsible innovation</i> evidenced by rising of specific sections and account to manifest their ethical concerns	Ethical principles guidelines frameworks maturations	
	Partnerships, Collaborations*	Use of the <i>recognition of press & mass media</i> to visibilize the resources adquired.	Symbolic action for operationalizing legitimation.	
	<i>Partners' websites*</i>	Relationship between <i>media and stimulating financing</i> .	Institutional capital	
	Investors (e.g Business angels)			
	Press & Media			

Table 26. Moving from descriptive to analytical categories: Main findings (...continued)

Stage 3 Descriptive categories patterns refined into indicators for categorizing raw data	Data source utilized	Examples from these data sources which 'identify the phenomena'	Summary of findings- Whats the story?	Stage 4 Synthesis of descriptive categories into analytical categories
Phase 3 (C4)	<i>Digital ventures' website</i>			Maintainance
	Starting About us	<i>Explicit use of espoused values</i> to convey publicly their values and their ethical concern towards technological devolpments.	Symbolic actions to demonstrate digital ventures' alignment with the entrepreneurial ecosystem	
	Our Values/ Our Philosophie	Ethical principles as <i>main directives that influence the strategic vision</i> of the digital venture, in particular in their organizational behavior.	Responsible innovation concerns evidenced by ethical statements or manifestos	
	Partnerships, Collaborations*	Exalting the <i>recognition and awards</i> obtained for merits related to their responsible technological developments.	Conveying their potential as a innovators and change agents	
	<i>Partners' websites*</i>			
	Investors (e.g Business angels)	<i>Sources of legitimacy</i> validating the fulfilment of the ethical commitments made by the main actors in the entrepreneurial system	Strategic Legitimacy Triangles: Targeted audiences before which digital ventures must demonstrate their commitment to the various ethical principles.	
	Media & Evaluators			
	Talent			

Notes: * To include the voice and perceptions of others agents in the entrepreneurial ecosystem, we triangulate data from their websites, a total of 80 additional websites' layers. This table was created following Jack et al. (2015) work.

4.4 Integration and Discussion

4.4.1 Digital Legitimation Loop: Actors, process and thresholds

Our main objective was to understand legitimacy in digital entrepreneurship, specifically how AI- startups pursue validation of their technology developments. As a result of our analysis, we were able to identify a link between entrepreneurial legitimacy and ethical principles. As technological development has increased the risk of harmful consequences for society, entrepreneurs are called to comply with new institutional conventions, such as ethical principles for AI. To do so, AI-startups should understand and accept the guidelines for responsible innovation as part of their symbolic action to gain legitimacy for their technological development.

As shown in Table 23, we come across further evidence that extends the symbolic action models identified earlier in the MCA. Indeed, both models are part of a continuum of AI-startups' positions towards responsible innovation. In line with other studies, we find that the consolidation of ethical frameworks is associated with acquiring resources by AI companies (Mendoza, Rodriguez Alfonso and Lhuillery, 2021).

Our analysis shows that the legitimacy of digital entrepreneurship is a mechanism for survival of AI-startups based on their ability to support the commitment of actors in the entrepreneurial ecosystem to responsible innovation and to effectively control the symbolic resources associated with the ethical principles that govern their entrepreneurial technological development.

4.4.2 The actors: Triangles of legitimacy

Another important element that emerged in our analysis is the role of the entrepreneurial ecosystem as an external enabler for digital ventures (Von Briel and Recker, no date; Chalmers, MacKenzie and Carter, 2021). Our data show that the new institutional conventions under which AI-startups operate emphasise expectations of addressing grand societal challenges (Owen *et al.*, 2021b), which aim to ensure that the development of innovations is ethically acceptable (Lubberink *et al.*, 2017; Ruggiu, 2019).

Entrepreneurial legitimacy for AI technologies relies on representing the interests, values and beliefs of resource providers (Fisher *et al.*, 2017; Ratinho *et al.*, 2020) related to responsible innovation. In short, we found that ethical principles (e.g. ethical statements, manifestos, organisational philosophies) are the common symbolic representation within the entrepreneurial ecosystem. These statements address concerns about AI developments and their potential impact (Floridi, 2019).

We distinguish between resource providers according to their role in the legitimation process. As described in Table 24, we first identified the early resource providers, which we call the institutional legitimacy triangle: (1) universities, research centres and government agencies; (2) investors; and (3) incubators and accelerators. The normative nature of the institutional legitimacy triangle enables existing culture and practise to shift towards responsible innovation (Loorbach, 2010; Thompson, Herrmann and Hekkert, 2015; Ruggiu, 2019; Ratinho *et al.*, 2020). To replace current institutional conventions, these resource providers act as a catalyst “imprinting” the new AI startup with the values that support the ethical principles of responsible innovation.

Although we did not observe explicit statements on digital entrepreneurship and responsible innovation in universities, research centres and government agencies, they undoubtedly value AI-startups under a normative position as sources of innovation and the responsibility to transfer it to society (Flipse, van der Sanden and Osseweijer, 2014; Ratinho *et al.*, 2020). At least in the four geographies studied, all actors enjoy a stable reputation that enables them to act as decision-makers for large-scale funding (Fisher *et al.*, 2017).

In this sense, incubators and accelerators publicly express their interest in attracting new AI-startups that align with their visions of how technology should positively impact society. They also fulfil the function of "doing a tech ecosystem" that connects entrepreneurs, universities and investors by establishing contacts, events and meetings. The networking activities led by these actors potentially create relationships and dynamics that enable responsible innovation concerns to be transferred to the network (Jack *et al.*, 2015).

Second, subsequent resource providers are formed by the triangle of strategic legitimacy: (1) press&media, (2) talent and (3) investors. Although the literature proposes a view of strategic legitimacy based on how new ventures use their symbolic actions to become legitimate (Zimmerman and Zeitz, 2002; Zott and

Huy, 2007), we found that these resource providers play an important role as evaluators and promoters (Vestergaard and Uldam, 2021) of the symbolic actions that AI-startups undertake to meet the benchmarks for responsible innovation (McDonnell and King, 2013).

We thus observe that the press and media operationalise legitimacy by iconising initiatives related to the positive impact of AI on society (Lounsbury and Glynn, 2001). AI-startups use this symbolic action to make themselves known in the tech entrepreneurial ecosystem. Recognition by the press and media provides a reputation as symbolic capital. AI-startups build a sustainable image and reputation that gives them a competitive advantage (Gray and Balmer, 1998). Here, responsible innovation works strategically as an impression management tool to attract attention through meaningful activities (Petkova, Rindova and Gupta, 2013).

Another target audience is talent, which is considered a success factor for digital ventures (Spigel, 2015; Zaheer *et al.*, 2019). In particular, the recruitment process for AI startups is about looking for the start-up mindset in potential employees (Zaheer *et al.*, 2019; Fernandes Crespo *et al.*, 2021). This search implies persuasion about the professionalism of organisational structures and processes (Zott and Huy, 2007). According to our data, AI-startups make a strong effort to engage in entrepreneurial discourses outlining how they take responsibility for the consequences of their technological innovation (Von Schomberg, 2013). In our cases, skilled talent (i.e. AI developers) seems to be attracted by the good match between the why and how of AI-startups and the developers' commitment to ethical principles (Buhmann and Fieseler, 2021).

Finally, investors provide funding to AI-startups depending on the stage of the entrepreneurial process. They actively emphasise environmental, social, and governance (ESG) standards as the most important criteria they apply in their funding decisions. They use these non-financial metrics to ensure that their investments have a social impact. We have found that these manifestos are designed to promote equity and fairness, with a particular interest in diversity and inclusion and sustainability.

As an institutional resource provider, investors, particularly business angels, support AI products or services in their conception stage. We have not observed the justification of a presumably unique criterion for "market-based priorities" and economic goals. In contrast to some recent studies on the influence of investors' values-ideology dominated by economic goals (Maldonado-Bautista,

Klein and Artz, 2021), our results show that, at least for AI products, business angels' capital allocation aligns AI startups with ethical principles.

Like early-stage investment, business angels value their affinity with the values and opinions expressed by AI startups (Parhankangas and Ehrlich, 2014). This finding suggests that investors play a key role in transferring their views on responsible innovation to the conception of new AI-startups. Business angels are a necessary catalyst for the growth of new ventures. They act as advisors and help them overcome challenges (Spigel, 2015).

In contrast, our data show that later-stage resource providers as venture capitalists act as evaluators, partnering only with those who promise positive, impactful AI products and services (Petkova, Rindova and Gupta, 2013; Parhankangas and Ehrlich, 2014). These high-level actors value the symbolic actions of entrepreneurs (Zott and Huy, 2007). For this reason, AI-startups try to make the content of their communications effective in explaining actions related to the social impact of their technologies. Having defined the resource providers involved in the legitimation of AI-startups, we will now describe the integrative process of legitimation

Table 27 Triangle of legitimacy

Actors	Resources provided	Actors attributes	Role in the process of legitimacy	
Institutional legitimacy triangle	Universities, research institutes and government agencies	Infrastructure research grant-fundings, entrepreneurship mentoring	First operational infrastructures for AI-startups. Responsible innovation and knowledge transfer.	Early-resource providers The setting of new institutional conventions. Transferring their norms and values to AI-startups associated with them.
	Incubators & Accelerators	Infrastructure, network, entrepreneurship mentoring	Tech-entrepreneurship ecosystem dynamizer; network builder.	
	Investors (e.g(e.g., business angels)	Seed capital	Promoters of responsible innovation based on ESG	
Strategic legitimacy triangle	Press & Media	Reputation and recognition (symbolic capital)	Iconized AI-startups/entrepreneurs and stimulating funding	Late-resource providers Targeted audiences of AI-startups.
	Talent	Human capital	Signal of growth. Ideology-based attracted and unretained.	Evaluating and legitimate providing resources based on AI-startups symbolic actions
	Investors (e.g. VC, CVC)	Growth capital	Promoters of responsible innovation based on ESG	

4.4.3 The process

Our notion of legitimacy for AI-startups manifests as a transformational process at the core of the entrepreneurial strategy. It has been established that legitimacy for AI entrepreneurship is a three-phase integrative process. It is not a straightforward process; our analysis shows that it is a looping process characterised by sequential thresholds based on how AI-startups consolidate ethical principles to become legitimised by the entrepreneurial ecosystem and obtain the resources they need to grow. As we illustrate in Figure 10, the legitimisation of AI-startups can be explained by three phases: Entry, Consolidation and Maintenance.

Phase 1: The entry phase is characterised by AI-startups designing their technological products or services. This moment is crucial for the legitimisation process of AI entrepreneurs. Unlike digital business models, which are typically able to generate revenue immediately without having to solicit funding from the outset (König *et al.*, 2019), it seems that for AI-startups the liability of newness appears to impact their ability to overcome barriers to technology adoption (Wang, Thornhill and De Castro, 2017; Mendoza, Rodriguez Alfonso and Lhuillery, 2021).

While AI-startups struggle to establish the technical and organisational structure, they need to overcome the change in perception and readiness to accept their technology by understanding their cultural and social values before launching (Mendoza, Rodriguez Alfonso and Lhuillery, 2021). Nonetheless, these organizations are still in the formation stage and face the challenge to meet their immediate needs for financial resources and supporting infrastructure (Wang, Thornhill and De Castro, 2017) to enable a successful adoption (Fisher *et al.*, 2017).

At this point, AI-startups are more vulnerable to the impact of their entrepreneurial ecosystem (Castellano and Ivanova, 2017) than other digital ventures models. The role of early resource providers is a strategic and organisational priority to facilitate the survival of new ventures (Ratinho *et al.*, 2020). The institutional legitimacy triangle and its responsible innovation interest are prerequisites for AI entrepreneurship. However, at this stage, AI-startups have a poor consolidation framework for EPAIs. Their initial approach to attract the attention of resource providers is characterised by accepted

knowledge claims (Vaara, Tienari and Laurila, 2006; Mendoza, Rodriguez Alfonso and Lhuillery, 2021).

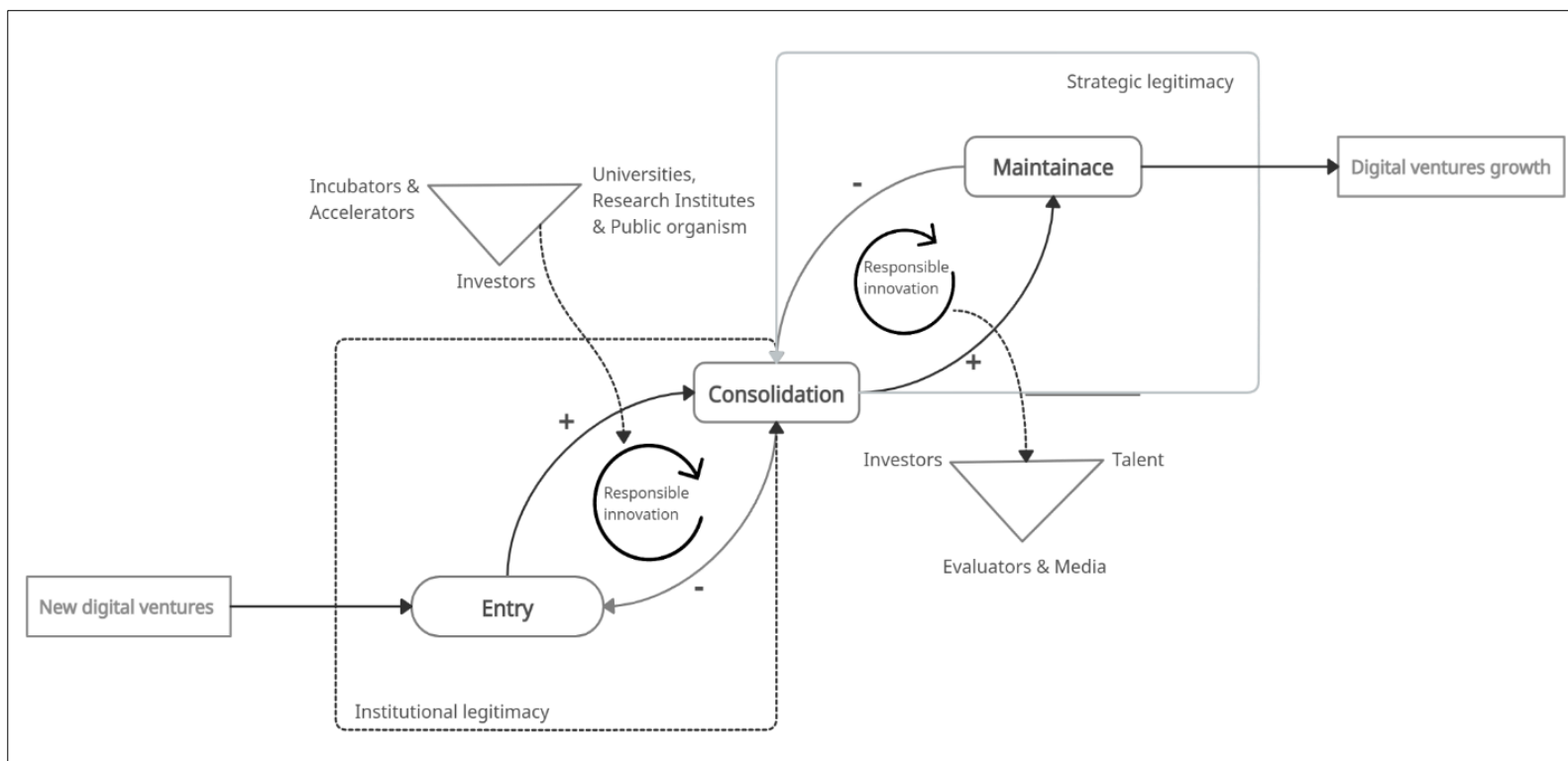
We observed the utilitarian use of symbols (espoused values) to translate EPAIs into the business model. That is an instrumental use of the values without moral meaning (Reuber and Morgan-Thomas, 2019). It seems that AI entrepreneurs materialise ethical principles strategically in technological products or services. Five ethical principles are embedded in technological solutions: Non-maleficence and privacy, responsibility and accountability, freedom and autonomy, respect and dignity, and transparency.

The business-centred legitimacy model promotes their technological capabilities to solve real-world problems. A clear example of this is the design and commercialization of cybersecurity or privacy solutions. At this stage, ethical principles underlie the business model, mainly as part of the value proposition. A clear example of this can be found in the conception and commercialization of cybersecurity or privacy protection solutions. Ethical principles underlie the business model in this phase, mainly as part of the value proposition.

The legitimation mechanisms of early-stage AI-startups are the transmission of responsible innovation, which has to do with institutional legitimacy triangle. Universities, research institutes or government agencies and incubators provide business training and infrastructures for new ventures that transmit the accepted norms of entrepreneurship (Ratinho *et al.*, 2020). On the other hand, business angels as investors imprint their ethics by participating in building AI-startups (Fisher, Lahiri and Kotha, 2016) to increase their value through affinity missions (Maldonado-Bautista, Klein and Artz, 2021).

The first loop occurs when AI-startups positively communicate their alignment, and convince early resource providers and then gain normative approval (Vaara, Tienari and Laurila, 2006). Then the need for growth leads AI-startups to enter the consolidation phase.

Figure 10. Digital Legitimation Loop



Phase 2: The consolidation phase is a transitional moment in the legitimisation process of AI entrepreneurship. One of the main objectives of this phase is to continue fundraising and strengthen commercialisation. Here, AI-startups are more aware of the institutional conventions that prevail in their entrepreneurial ecosystem. At this point, they are still being mentored by entrepreneurship support centres, but they are encouraged to raise mainly private funds from venture capitalists (Fisher, Lahiri and Kotha, 2016; Fisher *et al.*, 2017).

AI-startups that consolidate are more clearly committed to responsible innovation, mainly by signing manifestos or ethical statements (Flipse, van der Sanden and Osseweijer, 2014); their commitment to responsible innovation ensures fair and dignified coexistence between humans and technology. At this stage, ethical principles influence the strategic vision of AI-startups, especially in their organisational behaviour. It is not surprising that AI-startups are evolving towards a hybrid model in the use of their symbolic resources.

Espoused values propagated continue to be representations of technological solutions (Mendoza, Rodriguez Alfonso and Lhuillery, 2021); at the same time, they function as explicit statements of AI-startups' conformity to the conventions of the institutional legitimacy triangle (Brummette and Zoch, 2016; Fisher *et al.*, 2017).

The second loop occurs when AI-startups learn what their needs are and iterate their business mode (König *et al.*, 2019). In this phase, the learning process relates to the maturity of the EPAI frameworks that these ventures have built. Of course, integrating ethical aspects into organisational structures helps entrepreneurial teams to clarify their thought process and improve their decision-making to set better goals and priorities (Flipse, van der Sanden and Osseweijer, 2014). This transformation of the venture's symbolic actions is the best proof of the quality and credibility of its technological solutions (Zott and Huy, 2007). It represents a step forward in enabling venture capital funding.

Once AI-startups have gained the trust of their primary resource providers, venture capital, by effectively communicating the social impact of their products and services (Petkova, Rindova and Gupta, 2013; Mendoza, Rodriguez Alfonso and Lhuillery, 2021), conveying a sense of morality represented by ethical statements (Brand and Blok, 2019; Reuber and Morgan-Thomas, 2019), they approach more substantial investments (Parhankangas and Ehrlich, 2014; Ratinho *et al.*, 2020) and move into the imaintenance phase.

Phase 3: It is not surprising that AI-startups reaching the maintenance phase have demonstrated an ability to understand the institutional conventions under which they operate and to embrace ethical principles that are more than mere impositions of the entrepreneurial ecosystem. These ventures are in the growth phase and need funding to expand their talent force and cover operating costs (Fisher, Lahiri and Kotha, 2016). They face a shift in key resource providers that hold different pressures and judgments (Überbacher, 2014). Until Phase 2, AI-startups were supported by public-private entrepreneurship development centres, but in Phase 3, the resources needed to revolve around intangibles such as reputation and recognition (McDonnell and King, 2013; Petkova, Rindova and Gupta, 2013; Warren and Smith, 2015; Ratinho *et al.*, 2020). Reputation and recognition are credentials that symbolise capabilities and build trust (Zimmerman and Zeitz, 2002; Zott and Huy, 2007).

Due to the relevance of reputation and recognition as a legitimacy resource for digital AI-startups, the actors and flows of the process change. Our data show that the strategic legitimacy triangle acts as a new central resource provider, and AI-startups become more active in emphasising different symbolic actions (Zott and Huy, 2007). They develop the capacity for effective management control of ethical principles (De Clercq and Voronov, 2009) and seek to attract the attention of the media (Lounsbury and Glynn, 2001; Petkova, Rindova and Gupta, 2013; Warren and Smith, 2015; Vestergaard and Uldam, 2021), talent (Zaheer *et al.*, 2019; Fernandes Crespo *et al.*, 2021) and venture capital (Parhankangas and Ehrlich, 2014; Spigel, 2015).

We perceived an explicit moral use of their symbols to promote a positive perception of the venture (McDonnell and King, 2013; Mendoza, Rodriguez Alfonso and Lhuillery, 2021). Any symbolic action undertaken by AI-startups is clearly designed to convey that the EPAIs framework is fully integrated into the core of their business model. In the case of the press and media, are not only the technological solutions acknowledged but also the AI-startup team as social agents of change (Nicholson and Anderson, 2005; Warren and Smith, 2015). Often, AI-startups have a particular level on their website for their press and media releases. This is where they showcase positive media coverage, such as fundraising activities, award-winning competitions or participation in networking activities (Zott and Huy, 2007; Jack *et al.*, 2015; Fisher, Lahiri and Kotha, 2016).

The third loop occurs when these symbolic gestures build the credibility that AI-startups need to continue to find talent and investors. If AI technology is viewed positively in terms of responsible innovation through media coverage in the industry, then a shouting effect is created. If the company clearly adheres to the EPAIs framework, we observe a bidirectional recognition between high-level venture capital and AI startups. We understand this reciprocity as a signal of the trustworthiness of AI-startups (Rutherford, Buller and Stebbins, 2009). In the same vein, these ventures promote an ethical work environment in their human resource management. By recruiting and hiring skilled professionals, they must be perceived as responsible; retaining them means avoiding deception (Rutherford, Buller and Stebbins, 2009).

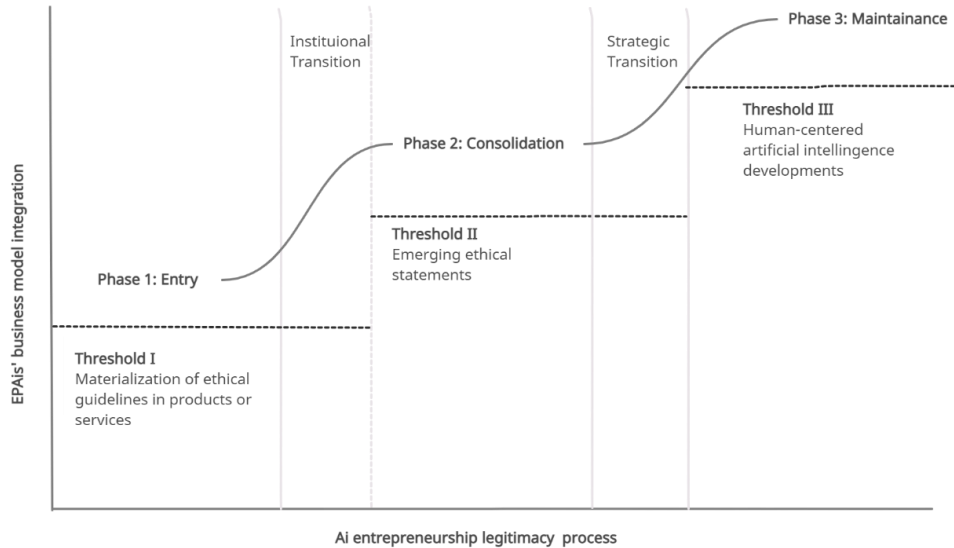
4.4.4 The thresholds: From Business-centered to Human-technology business models

We have found that legitimacy is gained on a continuum from 'how AI-startups became responsible innovators' to 'how AI-convince they are'. The transitions between phases are given by the influence of the entrepreneurial ecosystem and the constant management control of the new venture's symbolic resources (Zimmerman and Zeitz, 2002; Zott and Huy, 2007; De Clercq and Voronov, 2009).

Our findings are consistent with the concept of multiple legitimacy thresholds (Fisher, Lahiri and Kotha, 2016); however, we propose that the criteria for legitimacy of AI startups are expectations of their potential impact on society (Owen *et al.*, 2013; Ruggiu, 2019; Mendoza, Rodriguez Alfonso and Lhuillery, 2021). Therefore, the criteria for the legitimacy of AI entrepreneurship focus on how ventures implement the ethical principles at the core of their strategic vision.

Similar to Fisher *et al.* (2016), we relate the thresholds to the development and growth of the ventures. Nevertheless, concerning AI, the entrepreneurial ecosystem seems to us to have a clear agenda in terms of the principles and values that should guide the development and use of AI: promoting a pro-ethical character in the human-AI relationship (Jobin, Ienca and Vayena, 2019; Theodorou and Dignum, 2020). We thus argue that thresholds depend on how EPAIs' are integrated into the business model and how explicit the framework of the EPAIs' framework (Figure 11).

Figure 11. AI entrepreneurship legitimacy threshold



4.5 Implications and theoretical contributions

This study contributes to our understanding of entrepreneurial legitimacy in several ways. First, it provides a conceptual framework that describes how AI startups strive for legitimacy. In our attempt to address emerging research interests around AI (Obschonka and Audretsch, 2020; Chalmers, MacKenzie and Carter, 2021), we have focused on expanding what we know about legitimacy in AI-startups. Our findings extend the view of legitimacy as an integrative framework (De Clercq and Voronov, 2009; Fisher, Lahiri and Kotha, 2016) by highlighting the key role of ethical principles as a mechanism for obtaining the resources needed in the entrepreneurial process. In particular, we propose that the legitimacy of AI-startups is closely related to their ability to consolidate ethical frameworks. In line with previous research on digital entrepreneurship, communication is a crucial element for technology validation (Mendoza, Rodriguez Alfonso and Lhuillery, 2021).

Second, we highlight that the entrepreneurial legitimacy of AI startups as a continuum is related to the growth of entrepreneurship, the entrepreneurial ecosystem and ethical principles. Unlike traditional business models, new AI-startups enter the digital context seeking to gain the trust of institutional actors

and business angels (Fisher *et al.*, 2017; Mendoza, Rodriguez Alfonso and Lhuillery, 2021). These businesses are shaped by the key ethical concerns that prevail in their entrepreneurial ecosystem. If the institutional triangle has confidence in them, they will grow. In contrast, the main interest of start-ups is to have the most convincing discourse about the quality of their technological developments. AI-startups work to consolidate and maintain the trust of investors and talent. Their purposes evolve to express a moral concern. It looks like legitimacy follows the rule that it is necessary to reinforce moral principles to survive in the digital context.

Third, methodologically, our study aspired to move research on digital entrepreneurship towards the mix method (Zaheer, Breyer and Dumay, 2019) by using quantitative clustering techniques to define the 'what' of ethical concerns and qualitative techniques to explore the 'how'. We adopted a mixed-methods design to nourish research in digital entrepreneurship by recognising the importance of context (Johns, 2006, 2017; Anderson and Smith, 2007; Welter, 2011; Acs *et al.*, 2017; Baker and Welter, 2020), identifying recurring patterns, developing insights and seeking multidimensional outcomes that encompass both scale and lived experience (Johnson and Onwuegbuzie, 2004; Evans, Coon and Ume, 2011; Jack *et al.*, 2015).

In this regard, we argue for greater use of the Internet in general, and websites in particular, as a research context for the study of digital entrepreneurship (Perren and Jennings, 2005; Bansal and Kistruck, 2006; Zott and Huy, 2007). Within other social science disciplines, the study of the digital through these virtual locations is not new. In fact, the consolidation of digital ethnography is gaining momentum. Even in the field of entrepreneurship, there is already some work using ethnographic techniques (Ashman, Patterson and Brown, 2018; Mardon, Molesworth and Grigore, 2018; Delacroix, Parguel and Benoit-Moreau, 2019).

4.6 Limitations and future research lines

The findings of this study must be seen against the background of some limitations. First, possible attributions or exaggerations of the self-reported data. Although we were cautious in our data collection and analysis, we may have attributed positive results. This could be a consequence of our mix-model design, which incorporates an interpretivist approach that allows exploration of the subjective meanings and dispositions that emerge in relation to AI.

Second, the major methodological limitation of our study is our cross-sectional design and sample size. For most researchers, the cross-sectional design of our study may pose a limitation in deriving our framework for entrepreneurial legitimacy. While it is true that the how of a social phenomenon is usually considered longitudinally (Fisher, Lahiri and Kotha, 2016), our study captures the phenomenon by analysing different snapshots of AI startups at different stages of growth. Our framing approach relies on capturing a real-time representation of how AI startups engage with their entrepreneurial ecosystem. Moreover, espoused values represented as operators of legitimacy allow us to track the development pattern within a heterogeneous sample.

Further research is needed to expand our knowledge of the social processes of digital entrepreneurship, especially in the context of AI. We believe that a longitudinal study could also shed more light on the legitimacy processes of AI-startups.

Chapter 5: Concluding remarks

The present thesis contributes to an integrative framework of legitimacy in digital entrepreneurship. This assertion has led us to consider legitimacy as a critical factor for growth and success that depends on where is "entrepreneurship", who and how 'entrepreneurship' occurs (Fisher, Lahiri and Kotha, 2016; Fisher *et al.*, 2017). From this perspective, legitimacy is the outcome of a bidirectional process shaped by context and the ability of entrepreneurs to understand the rules of the game and obtain resources from their context (Stryker and Burke, 2000; Drakopoulou Dodd and Anderson, 2007; Nambisan, 2017; Anderson, Warren and Bensemann, 2019).

Accordingly, our main objectives were centred on understanding how digital ventures strive for legitimacy by focusing our attention on contextualising digital entrepreneurship and profiling the entrepreneurial identities operating there. To this end, in Chapter 2, we explored the 'where' of digital entrepreneurship and its particular spatial-institutional contextual factors (Welter, Baker and Wirsching, 2019; Baker and Welter, 2020; Welter and Baker, 2021). In Chapter 3, we developed our representations of digital entrepreneurial identities. Finally, Chapter 4 explored entrepreneurial legitimacy conditioned by technological progress and associated negative expectations (Rutherford, Buller and Stebbins, 2009; Owen *et al.*, 2013; Genus and Iskandarova, 2018)

Table 28. Summing up of Chapters, Objectives and Main Findings

	Chapter 2:	Chapter 3:	Chapter 4:
Title	Contextualising Digital Entrepreneurship: Ideology, Discourse and Values.	The emerging identities of digital entrepreneurship: An ideology-based typology	On the track to ethical guidelines for AI: The legitimization loops of AI entrepreneurship
Objective	<p>The purpose of this study is to offer a portrait of the ideology of digital entrepreneurship by examining the values embedded in entrepreneurial discourses</p>	<p>We aim to portray digital entrepreneurial identities, analysing (1) the hegemony of neoliberal discourse against other emerging discourses; and (2) the differences within each entrepreneurial discourse (neoliberal/emerging) across different contexts.</p>	<p>Our purpose is to understand the legitimacy for AI-startups. We engage in exploring how ethical principles are related to AI-startup ii pursuing legitimacy for their technological developments</p>
Main Findings	<p>(1) Corroborated the reproduction of neoliberal ideology through the values such as innovation, creativity, passion, challenge, transformation and change, profit, and personal drive;</p> <p>(2) Identified the emergence of alternative discourses;</p> <p>(3) The same discourse shapes distinctive cultural representations of entrepreneurship in different physical contexts; and,</p> <p>(1) (4) Proposing a conceptual model that explains the “where” of the digital context as a nested relationship between ideology and local physical context</p>	<p>Our main findings offer insights into digital entrepreneurial identities and empirical evidence about the ongoing transformation of entrepreneurship discourses.</p> <p>(1) The empirical evidence shows at least eight local digital entrepreneurial identities depending on the symbolic structures of their discourses: Neoliberal-based: Homo-Economicus, Neo-Taylorist, The Winner, Creative Worker; and Emerging-based: Supportive, Environmentally sustainable, Socially sustainable and Communitarian.</p> <p>(2) We support the hegemony of neoliberal values in the digital context</p> <p>(3) Nevertheless, we also identified emerging identities as a contestation to the myth of individualistic entrepreneurs</p>	<p>It was identified that for AI entrepreneurship, the legitimacy is a three-phase integrative process our analysis shows that is a loop process characterized by sequential thresholds based on how AI-startups consolidate ethical frameworks as the via to be legitimated by the entrepreneurial ecosystem to obtain the resources they need to growth.</p>

5.1 Our argument

Living in the digital age means that social practises are also transferred to the "digital". In terms of the legitimacy of digital entrepreneurship, the interactions between the context and the entrepreneurs take on a new dimension. Based on our conceptualisation, one way to capture the socio-spatial nature of digital entrepreneurship is through the various symbolic elements that manifest themselves in "digital space". Our main argument is to understand digital space as an immaterial space, but one that does not lack socio-normative institutions. These norms and values determine the conditions under which entrepreneurs perform symbolic actions that make them part of the entrepreneurial ecosystem and thus benefit from acquired legitimacy.

Thus, the complexity of the digital reaches a new terrain; we have analysed our studies from the perspective of ideology. We argue that the ideology of digital entrepreneurship is an observable phenomenon that emerges through the discourses and values embedded in digital spaces. For us, entrepreneurship in the digital context is being narrated (Hjorth and Steyaert, 2013). In essence, websites - like windows that reveal underlying values, beliefs and assumptions (Perren and Jennings, 2005; Bansal and Kistruck, 2006)—, articulate discourses as expressions of what values are accepted in entrepreneurial digital practises. (van Dijk, 2006; Hjorth and Steyaert, 2013; Garud, Gehman and Giuliani, 2014; Ugoretz, 2017). As a result, entrepreneurial practises that are socially legitimised can be addressed.

Following Van Dijk's (2006) theoretical move towards a theory of ideology, we think that digital entrepreneurial legitimacy as a process can be accessed through the values embedded in discourses. In particular, we propose to work with the most visible and accessible forms of organizational values: espoused values (Bourne, Jenkins and Parry, 2017). This unit of analysis explains what entrepreneurs deem to be important; values underpin ethics and shape morale (Anderson and Smith, 2007).

Espoused values demonstrated that they can link both realities of entrepreneurship: the context and the entrepreneurs. On the one hand, the literature traditionally refers to the term "espoused" to those organizational values formally espoused by top management as a statement of intent about organisational behaviour (Kabanoff, Waldersee and Cohen, 1995; Bansal, 2003; Bourne and Jenkins, 2013). More so, they have been conceptualised as public representations of top managers' values (Kabanoff, Waldersee and Cohen, 1995; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017).

This assumption relates to both top managers' and organisations' values and states that leaders have the authority to use espoused values as a social control mechanism (Jonsen *et al.*, 2015). In the case of digital ventures, we considered that organizational values are those of their founders (Schein, 1983; Bourne and Jenkins, 2013). Schein (1983) attributes it to “(...) founders deliberately choose to build organizations that reflect their personal biases” (Schein, 1983, p.15) and “ (...) form the basis for the group’s initial identity” (Schein, 1983, p.22). He also posited that professional managers could share and improve the original values when founders endorse the congruence of the new assumptions with the oldest ones (Schein, 1983).

The personal biases of managers referred to by Schein (1983) represent the desires of how they want the organisation to be seen by its stakeholders (Bourne, Jenkins and Parry, 2017; Malbašić, Mas-Machuca and Marimon, 2018). It could then be assumed that the espoused values have the potential to manifest the uniqueness of the organisation.

However, the conceptualisation of espoused values has considered the idea of aggregating top managers' values and linked to the attainment of organisational legitimacy (Bourne and Jenkins, 2013; Jonsen *et al.*, 2015; Brummette and Zoch, 2016). According to Suchman (1995, p.574), legitimacy “is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions”. This definition takes into account the public nature of espoused values promulgated. They are used to demonstrate the conformity of entrepreneurs to the context in which they operate (Brummette and Zoch, 2016). In other words, digital entrepreneurs use espoused values to conform to the expectations of resource holders.

Therefore, espoused values can be seen as a tool that enables organisations to achieve their legitimacy goals (Hofstede, 1984; Gray and Balmer, 1998; Kabanoff and Daly, 2000; Schein, 2004; Jonsen *et al.*, 2015; Bourne, Jenkins and Parry, 2017). Particularly in digital ventures, espoused values can help overcome vulnerability to ethical judgements (Owen *et al.*, 2013). Thus, technological validation requires profound cultural change and the transformation of social values (Mendoza, Rodriguez Alfonso and Lhuillery, 2021). This fact is a *sine qua non* to ensure digital venture survival.

5.2 Reflections about our findings

Since digitalisation has influenced Schumpeter's (1984) traditional model of entrepreneurship, where a new business is created based on innovation, and Baumol's (1990) contributions exploring the interface between institutions, entrepreneurship and economic development, our conceptualisation of entrepreneurship has been challenged.

First, our findings confirm the still dominant neoliberal ideology about the understanding of entrepreneurship. The social reality of entrepreneurship is still entrenched in the tradition of free-market principles, economic improvement and the logic of innovation and creativity (Ogbor, 2000; Nicholls, 2009; Martinez Dy, Martin and Marlow, 2018). The associations of digital entrepreneurs with cool, creative, and innovative lifestyles (Leung and Cossu, 2019) reinforce the notion of an idealisation of the “power of technologies” and “the entrepreneurial hero”.

However, a second consideration arose when we were able to identify emerging values in entrepreneurial discourses. The breaking point of our analysis was values that resist the dominant neoliberal view. We found values that could evidence alternative discourses to neoliberalism (Hytti and Heinonen, 2013; Muñoz and Cohen, 2018; Watson, 2008). These new values show us an ideological variation that is strongly influenced by the impact of digitalisation (Tilson, Lyytinen and Sørensen, 2010, p.2).

As a consequence of these ideological variations, our third reflection led us to argue that acquiring digital entrepreneurs' resources is associated with overcoming the negative social impacts of technology. Responsible innovation, particularly ethical concerns about technological developments, is at the heart of discourses wherever there is a claim to design, develop and deploy technologies that do not pose harmful risks to humans.

General speaking, our findings should not be interpreted as :

- i. *An exercise of critical discourse analysis.* Our findings describe the values embedded in digital entrepreneurial discourses convey about the common ground of entrepreneurship. We have taken a step back to reflect on the foundations of entrepreneurship.
- ii. *A statement to define espoused values as ‘real-life’ actions.* This account implies that espoused values are not necessarily organisational practises and recommends that they be viewed with caution. In most cases, organisations are not congruent between what they say and do

(Argyris and Schon, 1978; Bourne and Jenkins, 2013; Zander, Jonsen and Mockaitis, 2016). Nevertheless, the espoused values are a key element for a business to build a desirable image by effectively communicating them with internal and external stakeholders (Chun, 2019).

5.3 Contributions and Relevance

The insights gained in developing this thesis provide an integrative framework for understanding the legitimacy of digital entrepreneurship. Its explanatory elements lie in the crucial role of the digital context (*the where*) in shaping the entrepreneurial identity of digital enterprises (*the who*), which create validation and acceptance for resource holders (*the how*).

Our key findings were to observe emerging discourses as a breaking point in the legitimization process in the digital context. The social realities shaped by technological progress are changing the ethical principles in the mechanism for entrepreneurial survival. In particular, we analyse the case of artificial intelligence (AI), that is, its cultural sensitivity and the potentially harmful risks for society. Validation and trust in the positive capabilities of AI are *sine qua non* for the legitimacy of digital entrepreneurship.

As we see, the petrified in the archetypal hero myth (Drakopoulou Dodd and Anderson, 2007; Anderson and Warren, 2011) is beginning to show cracks. We are facing the emergence of other values for entrepreneurship (Hytti, 2005; Hytti and Heinonen, 2013). The notion of the authentic digital entrepreneur is not universal. These considerations are in line with Drakopoulou and Anderson (2007) and their call for demystifying the taken-for-granted figure of the entrepreneur.

This thesis contributes to the conceptualisation of entrepreneurship as a social and spatial practise that takes on new meanings in different times and places (Hytti, 2005; Anderson, Warren and Bensemman, 2019). We underline the relevance:

- i. *Attended the claims for new road maps to overcome our current limited explanatory power to understand contexts.* We attempt to advance the field in two ways. First, following Welter and Baker (2021), our goal was to build, from an omnibus perspective, the context for digital

- entrepreneurship. Our approach focused on theorising "where" digital entrepreneurship takes place - spatially and institutionally.
- ii. Following Anderson's (2015) reflection, "*Have we been stones in obstinately reifying entrepreneurship as an economic phenomenon only for wealth production?*" This work called into question the relevance and applicability of conventional perspectives for entrepreneurship.
 - iii. Our contextualisation shed some light on the *ideology impacts on entrepreneurial identity work and the emergence of "new identities"*. We built on Anderson et al. (2019) remainder on entrepreneurship as a process based in place, and identity is shaped by either macro and micro discourses of enterprises in a localised context. We add that digital entrepreneurial identity reproduces the cultural context where entrepreneurs live despite digital entrepreneurship's less bounded and immaterial nature.
 - iv. Incorporated *explanations about the influence of context in shaping digital entrepreneurship*, particularly AI startups (Anderson and Smith, 2007; Welter, 2011; Johns, 2017; Baker and Welter, 2020).

5.6 Limitations and Future research

The findings of this work must be seen in the light of some caveats. First, the main limitations of this study are based on the use of espoused values. While we believe this does not compromise the exploratory nature of the study, it is worth noting that some authors point out that these are not necessarily organisational practises and may tend not to be congruent between what they say and what they do (Bourne, Jenkins and Parry, 2017). Nonetheless, the espoused values are a key element for a business to build a desirable image when communicating with internal and external stakeholders (Chun, 2019).

Second, we are aware of the possible attribution or exaggeration of self-reported data. Although we were cautious in our data collection and analysis, we may have attributed positive outcomes. This could be a consequence of our mixed-methods model, which includes an interpretativist approach that explores the subjective meanings and dispositions associated with digital entrepreneurship.

Third, the main methodological limitation lies in our cross-sectional design and sample size in Chapter 3. For most researchers, the cross-sectional design of our study may pose a limitation in deriving our framework for entrepreneurial

legitimacy. While it is true that the study of a social phenomenon is usually longitudinal (Fisher, Lahiri and Kotha, 2016), our study captures entrepreneurship by analysing the different snapshots of the entrepreneurial journey. Our frame approach relies on capturing a real-time representation of how AI startups deal with their entrepreneurial ecosystem. Furthermore, using espoused values as an operator of legitimacy allows us to track the development pattern within a heterogeneous sample.

It is our interest to continue building on digital entrepreneurship focus our effort in:

- i. Our model, “*The ideology of digital entrepreneurship as a nested paradigm*” (Figure 5), can be empirically tested using large-scale surveys or panel data. This endeavour will allow us to generalise and expand on a broader population of digital entrepreneurs.
- ii. Comparative studies between multiple countries could expand our knowledge of this topic, especially if underlying entrepreneurial factors are included.
- iii. To expand our knowledge of the relationships between digital entrepreneurial identities and resource acquisition, talent attraction or reputational impacts.
- iv. To expand our knowledge of the social processes of digital entrepreneurship, particularly those related to AI. We believe that longitudinal studies could also shed more light on the legitimation process of AI-startups.

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