
10. Digital platforms

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Digital platforms have changed the conditions influencing entrepreneurship across the globe. Research has shown that context is critical in understanding how these platforms impact entrepreneurial endeavors. This chapter illustrates how context is critical in understanding and analyzing how digital platforms influence entrepreneurial opportunities. It suggests that digital platforms represents a new type of intersection between the global and the local, where global forces promote conditions of dependent entrepreneurship while local forces shape entrepreneurs' agency in relation to the global processes. We suggest that, to ensure fair competition and just working conditions for platform entrepreneurs and employees within the industry, there is a need for policies not being steered by techno-skeptical or techno-optimistic frameworks but by a context-sensitive approach based on the globalizing dependency creating processes.

Since Joseph Schumpeter at least, it has been recognized that entrepreneurs discover and create opportunities and build new independent firms (Alvarez and Barney, 2007; Audretsch, 2007). More recently, scholars such as Brynjolfsson and McAfee (2016) have hailed entrepreneurship as a vital response to the increasing concerns about digitization's impact on entrepreneurship and the future of work. The impact of digital platforms on entrepreneurship has emerged simultaneously with a recognition of the importance of context in generic entrepreneurship research. Researching context in relation to digital platforms provides a particular challenge to researchers owing to their simultaneous global and localized nature; the interplay between the global and the local is more complex than in most other industries in view of the high digital interconnectivity and limited footlessness for many types of transactions and activities. A request on, for example, Innocentive, the world's leading problem-solving digital platform, can be promoted to potential problem-solvers across the globe at the same time, and problem-solving solutions collected from the problem-solvers also all at the same time, and then a choice can be made between the submitted solutions.

Digital platforms such as Amazon, eBay, Etsy, Apple, Instagram and YouTube make it easier than ever for entrepreneurs to build a business and generate income. To illustrate their strength, the revenue generated by applications (apps) on Google and Apple, together, is projected to reach \$188.9 billion by 2020. Data show that more than a million US-based small and medium-sized businesses operate on Amazon marketplace, generating hundreds of thousands of jobs across the US (Amazon, 2019). According to Etsy, in 2018 its sellers had an economic impact of \$5.37 billion, with more than 1.52 million jobs created in the US economy (Etsy and GfK, 2019). These numbers reflect a combination of entrepreneurship by choice (for example, pursuing super-normal rents) and entrepreneurship by force (for example, precarious working conditions). Those with opportunities to generate new platform ideas that are economically sustainable can generate superior rents while those working as entrepreneurs on the platforms are often exposed to hard competition and meagre returns on their investments. Moreover, many of the contributors to the

platforms are not even receiving any compensation. LinkedIn, for example, have a huge number of voluntary contributors not receiving payment for their uploads.

The economic centrality of platforms heralds a new reality for entrepreneurs. Launching a business on a digital platform is not just about access to commercial opportunities that would not otherwise be available, but embodies new and concrete forms of entrepreneurship. Extant literature has produced important insights into how platforms' technological dimensions operate to redefine entrepreneurial opportunities, processes and outcomes (Nambisa, 2017; Nambisan et al., 2019; Von Briel et al., 2018). Moreover, as many scholars argue, platforms represent a novel and different context for entrepreneurial activities (Eckhardt et al., 2018; McIntyre and Srinivasan, 2017). Yet, the context is also highly diverse across activities. Local commercial digital platforms in developing countries differ significantly from hobby gaming digital platforms originated in developed countries; thus there is a need to unpack the importance of context.

While recognizing the tremendous new business opportunities created by online platforms, scholars have identified several threats that directly stem from platforms (Cutolo and Kenney, 2020; Nambisan and Baron, 2019; Wang and Miller, 2020; Wen and Zhu, 2019), but these findings have not incorporated a theoretical perspective of context. Our objective is therefore to elucidate and discuss the features of platform entrepreneurship and the role of context.

The chapter is organized as follows. The first section introduces the importance of the context in entrepreneurial research and discusses the peculiar nature of digital platforms as a new context for entrepreneurship. The following section focuses on the new actors involved, where actors are understood as embedded in a dual context, being the local and global. The third section looks into how this focus on digital platforms as a new context carries important policy implications. Finally, we emphasize areas for future research concerned with the role of context in digital platform research.

A NEW CONTEXT FOR ENTREPRENEURSHIP

The Importance of the Context in Entrepreneurship

Not long ago, financial capital and ownership were central tenants of entrepreneurship. In his day, Henry Ford gained an economy of scale through ownership and centralized control, but currently, even Ford has decentralized operations into a multi-polar structure; the factory where 100 000 employees produced 1200 cars a day, dropped to 3000 employees making 800 cars a day, and this brings us to a new paradigm (Wright and Dana, 2003 [2007]). Iron ore no longer enters a plant at one end, and automobiles drive out the other.

At a time when the psychology of entrepreneurs was being investigated and ethnocentric generalizations were made from Western samples, going against the accepted view, Dana (1995 [2002], 1996) noted that the opportunity for entrepreneurship was influenced by context and it was wrong to assume that an opportunity for one person was necessarily an opportunity for another. These studies pioneered the concept that context had an impact on shaping entrepreneurship as Dana demonstrated that the perception of entrepreneurial opportunities is influenced by factors such as cultural capital that may

discourage (Light and Dana, 2013) or facilitate the emergence of entrepreneurship (Dana et al., 2020).

Similarly, digital platforms facilitate and simultaneously shape the emergence of novel entrepreneurial opportunities. When conceptualizing the emergence of entrepreneurial opportunity, it is important to consider the role of contextual elements or enablers, such as ‘single, distinct, external circumstances, which – by affecting supply, demand, costs, prices or payoff structures – can play an essential role in eliciting and/or enabling a variety of venture development attempts’ (Davidsson, 2015: 684). Although contextual elements operate at the environmental level and can be actor-independent, particular actors often influence or even have a central role as external enablers (Davidsson, 2015). By orchestrating entire ecosystems of value creation and exchange (Nambisan, 2017) and by providing resources for various stages of the entrepreneurial process (von Briel et al., 2018), digital platforms not only are external enablers but also open new spaces where entrepreneurs can create new firms.¹ They in effect become a new context for entrepreneurial activity.

Analyzing the context in which entrepreneurship takes place is of the utmost importance in the advancement of entrepreneurial research (Welter, 2011), since the character of entrepreneurship, as well as the actions and the outcomes of any entrepreneurial effort, depend on the rules, threats and opportunities deriving from the context (Autio et al., 2014). Although there is a diffused tendency to treat contextual features as error variance (Bamberger, 2008) or control variables (Zahra et al., 2014), a deep understanding of entrepreneurial context serves multiple purposes from a theoretical standpoint, since it enables us to delineate the phenomena and the relationships under study (Bamberger, 2008) and the nature and sources of risks and uncertainty that may influence the behaviors of the entrepreneurs (Nambisan and Baron, 2019).

In addition to market rules, which are a common factor regulating economic dynamics, new and established business must face multiple forces that arise from the context of their activities (Zahra et al., 2014) – for instance, the presence of venture capital locally or legal structures, such as the existence of noncompete agreements (Marx et al., 2015) – set the boundaries for their actions (Welter 2011) and can facilitate, hinder or have contradictory impacts on entrepreneurial success. The important role that context plays in explaining entrepreneurial actions and outcomes is gaining momentum in the literature but, thus far, limited attention has been devoted to how the context of digital platforms shape entrepreneurial opportunities, actions and outcomes (Nambisan, 2017).

The dearth of research on how digital platforms influence the nature of entrepreneurship is even more problematic considering that essentially a great part of current entrepreneurship is predicated upon being in a platform ecosystem. For example, the sale of consumer goods has been transformed by Amazon. Amazon and other digital platforms are where consumers learn about and search for goods. The growing centrality of platforms is evidenced by the need for even the most powerful established brands to establish a presence on Amazon: Nike and Apple had resisted selling through Amazon in part out of fear of undercutting their existing vendors, but in 2018, they capitulated and began selling on Amazon.

The Multifaceted Nature of the Context

There is a broad consensus about manifold facets of context (Autio et al., 2014; Welter, 2011; Zahra et al., 2014). Context is both an enabling and constraining factor in understanding digital entrepreneurship. However, as documented by the entrepreneurship ecosystems literature, context has to be enacted to be transformed from being a passive site to becoming a valuable resource. This transformation process depends on entrepreneurs and entrepreneurial activities, therefore there is a need to link actors and context better than has previously been achieved in the literature. That is, to fully appreciate the impact of the platform economy on entrepreneurship, it is important to explore how the context can be conceptualized and operationalized within the digital economy.

Technological Dimension of Digital Platforms: Beyond Spatial and Social Context

Research in entrepreneurship recently has started to acknowledge the central role that the digital nature of platforms play in shaping the context for entrepreneurs (Nambisan, 2017; Nambisan et al., 2018, 2019; Sussan and Acs, 2017).

The spatial dimension of the context refers to the geographical environment, the physical setting or location where entrepreneurial actions take place (Zahra and Wright, 2011). The relevance of spatial mechanisms in fostering and regulating entrepreneurial and innovation activities has a long research tradition in economic geography (Kenney, 1999). Spatial proximity fuels new-firm creation and growth as it enables the generation of positive externalities, such as access to knowledge and social capital, and economies of scale and scope (Delgado et al., 2010). For example, location represents an important asset in the process of international expansion by new ventures, since clusters of new firms offer several tangible and intangible resources that can be leveraged to internationalize operations (Fernhaber et al., 2014). The reason is that the spatial dimension of the context ‘serves as a proxy for several important variables that determine the vigor of entrepreneurial activities’ (Zahra et al., 2014: 488).

The integration of existing frameworks and theories from digital technology literature with existing concepts in entrepreneurship illustrates that, within the context of digital platforms, the spatial boundaries of entrepreneurial actions and outcomes have been drastically redefined (Nambisan, 2017; Nambisan et al., 2019). Online platforms are built upon a set of digital technology tools and systems, a digital infrastructure (Tilson et al., 2010) that allows entrepreneurs to access many of the benefits that originate from spatial proximity without requiring the creation of physical clusters. As a consequence, geographical location changes importance since digital platforms are specifically designed to connect previously unconnected and dispersed entities (Brunn et al., 2002; Henten and Windekilde, 2016). For example, crowdfunding platforms such as Kickstarter and Indiegogo enable entrepreneurial ventures to interact with potential customers and attract financial resources on a global scale. Yet, this does not imply that space is unimportant because, for example, crowdfunding is known to be discriminative against entrepreneurs from developing countries.

That is, the digital nature of online platforms contributes to making the spatial boundaries of entrepreneurial processes and outcomes more fluid, with important consequences also for the interaction among the actors involved (Nambisan, 2017). The

spatial dimension of the context place entrepreneurs in a social network of actors that influences the likelihood of entrepreneurial emergence and success (Autio et al., 2014). The interactions and exchanges between groups of heterogeneous actors are a rich source of knowledge, resources and access to markets (and actors' actions are influenced by the spatial context they are embedded in). Consequently, these spatially embedded yet spatially dynamic networks represent a vital factor for the creation, growth and success of new ventures. In this regard, the social and spatial dimension of the context are ultimately intertwined in exerting a substantial influence over individual agency and entrepreneurial outcomes (Zahra et al., 2014).

Platforms such as Amazon, Alibaba, Etsy or eBay drastically reduced the costs of economic interactions with investors, partners, suppliers and customers distributed worldwide, supporting entrepreneurial growth and expansion. Initially, digital platforms deploy several technological tools to favor the interaction between the members of their networks. For instance, in platform markets, algorithmic and recommendation systems operate to reduce discovery and transaction costs, and reputation and review systems are essential features of many digital platforms because they function as mechanisms to foster trust (Jøsang et al., 2007; Luca and Zervas, 2016; Tadelis, 2016). As a direct consequence of the latter aspect, entrepreneurs can more easily (and at lower cost) benefit from market information about the value of their business proposition, and identify the most promising opportunities (Eckhardt et al., 2018).

In addition, digital platforms support and promote the development of digital spaces where entrepreneurs can easily communicate and interact with one another. These online communities generate fruitful exchanges that in ultimately influence the emergence and the success of entrepreneurial opportunities. For example, Kuhn and Galloway (2015) offer insights on how digital communities of peer entrepreneurs become a useful source of support and strategic advices.

The technological dimension of digital platforms goes beyond the influence of spatial and social context as it creates increasing opportunities for a more distributed entrepreneurial agency (Nambisan, 2017). Digital platforms allow a set of otherwise disconnected actors to participate in a shared creation of value, directly contributing with resources, feedback, social and human capital.

Digital Platform Strategies: In Between Market and Institutional Context

In shifting the focus on the context, great attention has been devoted to market factors that affect entrepreneurial actions, processes and outcomes. Market or industry life cycle has been shown to exert significant influence on the emergence of entrepreneurial activities, with entrepreneurial entry mostly concentrated in the early stage of an industry life cycle and entrepreneurial innovations encountered during later phases (Autio et al., 2014). Together with industry life cycle, other market dynamics have been called into question, for instance, the level of competition in the market (Welter, 2011).

Competitive and evolutionary dynamics in digital platform markets are unique in being intrinsically tied to the strategic decisions of the platform firms (Cennamo, 2019; Cusumano et al., 2019). In the early stage of their life cycle, owing to the fierce competition between platforms that typically follows the emergence of a new opportunity, platforms need to attract entrepreneurs in the attempt to gain market traction. As a

consequence, several boundary resources are provided to support entrepreneurs in starting, managing and scaling their businesses, such as application programming interfaces, software development kits, payment, logistic systems and, even, mentoring initiatives, which dramatically ease market entry and growth (Ghazawneh and Henfridsson, 2013). Resources acquisition is a critical challenge for all new ventures, since nascent entrepreneurs typically require a variety of resources and competencies to overcome the liability of newness (Stinchcombe, 1965), in relation to which, inter-platform competitive dynamics open novel opportunities for entrepreneurs by lowering entry barriers.

When a platform market matures owing to network effects and winner-take-most dynamics (Cennamo and Santalo, 2013; Gawer and Cusumano, 2014), the strategies of the platform firms change and, with them, the contextual dynamics that entrepreneurs face. For example, although positioning themselves as direct competitors to the entrepreneurs that populate their market may hinder the long-term equilibrium of a platform ecosystem, in the quest for profit maximization platform owners may seek to capture more value at the expense of the ecosystem's actors. To illustrate, Zhu and Liu (2018) found Amazon entry patterns into market segments created by independent entrepreneurs in the Amazon marketplace are the result of pure competitive actions aimed solely at increasing the platform's profit by appropriating the most successful space in its marketplace. That is, running a business on a platform entails the implicit acceptance of the rules and general value proposition set by the platform owner (Nambisan and Baron, 2013).

Digital platforms' strategy is a novel dimension of the context that lies in between markets and institution. This is because digital platforms act as private regulators of their markets, setting the rules for engagement and the terms of participation for all the actors involved. The institutional context refers to the role that formal and informal institutions play by setting the 'rules of the game' (Welter, 2011: 172). Changes in regulation represents a decisive factor for the emergence and occurrence of new business opportunities (Autio et al., 2014; Shane, 2003). For instance, the Bayh–Dole Act of 1980 in the US has been a fundamental initiative to stimulate academic engagement with the commercialization of their research (Grimaldi et al., 2011).

Regulation of digital market spaces is a priority for the platform to protect both customers and entrepreneurs from fraudulent and opportunistic behaviors (Evans, 2012). As a direct consequence, running a business on a platform entails the implicit acceptance of the rules and general value proposition set by the platform owner (Nambisan and Baron, 2013). That is, platforms are masters of life and death within the market, since they own the digital spaces and they can change the terms of participation, raising fees or altering the earning structure, and their powers extend to excluding entrepreneurs from the market at any moment (Cutolo and Kenney, 2020).

NEW ACTORS: DESCRIBING PLATFORM ENTREPRENEURS

Platform-based entrepreneurs may deviate from the stereotypical Silicon Valley high-growth startups and often take a more mundane form (for example, entrepreneurs by force) (Barley et al., 2017). These enterprises have great variety: opening a knitwear shop on Etsy, or eBay, creating a YouTube channel, writing apps, creating a reselling business on Amazon and starting a business based on Google advertisement referrals are only a

Table 10.1 Platforms and their sizes

Platform	Number of entrepreneurs	Source and year
Apple iOS/App Store	20 million developers	TechCrunch, 2018
Amazon*	2.5 million merchants	Marketplacepulse, 2019
eBay	25 million sellers	https://www.oberlo.com/blog/ebay-statistics#:~:text=That%20makes%20seven%20million%20US,eBay%20sellers%20around%20the%20globe
Taobab	8 million merchants	Alibaba, 2019
YouTube	31 million channels	https://www.tubics.com/blog/number-of-youtube-channels/
Twitch	180 000 streamers generating revenues	TechCrunch, 2018
Etsy	2.1 million merchants	Etsy, 2019
Shopify	800 000 of businesses	Shopify, 2019
Instagram	25 million business profiles	Instagram, 2019

few of the types of businesses that can be established on a digital platform (Haefliger et al., 2010; Kuhn and Galloway, 2015).

This enormous population of entrepreneurs is largely unstudied as scholars have focused on the platforms. This omission is notable considering the sheer number of these entrepreneurs. See Table 10.1 for the number of entrepreneurs operating on the major platforms.

The preponderance of existing research on entrepreneurship focuses on extraordinary firms that are described as gazelles and unicorns, instead of studying the far more common, ordinary entrepreneurs (Aldrich and Ruef, 2018). The dearth of research on entrepreneurs on digital platforms is even more problematic considering that participation in a platform's ecosystem has become vital for businesses' existence and growth (Kenney and Zysman, 2016; Parker et al., 2016).

Digital platforms have been theorized around a normative axis concerned with whether digital platforms are inherently negative for mundane entrepreneurs or entail new job opportunities. The literature has incorporated context in that a new digital platform economy has emerged but has not incorporated context as a spatial dimension. That is, it has not looked at how the local and national context impacts the mundane entrepreneurs' opportunities. It is implicitly assumed that opportunities are equal, independent of the context. Entrepreneurs in Myanmar and Uganda are thereby subsumed to the same logic as are entrepreneurs located in Milan or Paris.

Often overlooked in the literature are the people with conventional jobs within the platform economy, that is, non-entrepreneurs. What is still not researched, for example, is the working conditions of employees of the large platforms in general, and in particular in developing countries, or of those working for subcontractors to the large platforms. Anecdotal evidence suggests that they experience terrible working conditions and pronounced effects of their work. They undertake routine work under conditions of limited resources (especially time), limited autonomy and support, and limited knowledge of the

impact of their activities on the users (for example, use value). Moreover, the work they do is, under some circumstances, having an extremely negative impact on their mental well-being. This is most articulated among workers censoring uploads where they have to deal with, for example, child pornography. The Washington Times (2019) summarizes it this way (in the context of Filipino workers):

[W]orkers in offices around Manila evaluate images, videos and posts from all over the world. The work places enormous burdens on them to understand foreign cultures and to moderate content in up to 10 languages that they don't speak, while making several hundred decisions a day about what can remain online. In interviews with The Washington Post, 14 current and former moderators in Manila described a workplace where nightmares, paranoia and obsessive ruminations were common consequences of the job. Several described seeing colleagues suffer mental breakdowns at their desks. One of them said he attempted suicide as a result of the trauma.

This suggests that they face degrading working conditions. Yet, as research in conventional manufacturing has shown, companies facing the same conditions as suppliers have been able to offer significantly different working conditions to their employees. Locke, for example, studied similar suppliers to Nike from Mexico. He found that the suppliers varied dramatically in their job design. There is thus a need to be cautious about generalizing from one geographical context to the next.

POLICY AND CONTEXT

Aligned with the contextual perspective is the need to develop new policy tools and instruments incorporating a nuanced understanding of how context operates and how the global and local unfolds differently in different contexts. Policy discourses have had a tendency to be either techno-optimistic or techno-skeptical. The purpose of incorporating context is to indicate how context encapsulate both idiosyncratic (local) and universal (global) dynamics and that actors located in a different context will both experience the opportunities differently and have access to different resources. The starting point for policy development in therefore to place context at the core of the analysis and policy formulations.

The universalizing dimensions of the platform are captured well by Cutolo and Kenney (2020), who suggest that entrepreneurs are best conceptualized as being embedded in a system that creates space mainly for dependent entrepreneurship. Their model thus suggests that policies need to be developed to address the dependency of entrepreneurs. The policies can entail legal as well as non-legal dimensions. The legal dimensions are typically related to conditions of competition to ensure that market positions are not exploited while the non-legal policies entail policies for creating niches where local experiments can be cultivated without being exposed to destructive selection mechanisms; that is, selection mechanisms based on the power and positions of the platform incumbents.

Moreover, policies are needed to destabilize the industries where the platforms dominate. Public initiatives can support the development of new business models and promote collaboration with new smaller platforms guaranteeing that value is not disproportionately captured by large established platforms.

Also, it is necessary to ensure that promising networks are brought together with the aim of co-developing activities that increases their bargaining power in relation to the

large platforms. This may include commitment from governments concerning their purchasing policies. It may be naive to assume that public procurement can eradicate all issues related to poor working conditions among employees affiliated directly or indirectly with the platforms. Yet, public procurement should make it mandatory that working conditions are respected and enforced among their suppliers. This could create some changes in the industries.

Finally, in the context of developing countries, experiences from, for example, China, shows that building local platforms can be achieved successfully but this requires policy measures suspending the traditional market dynamics (however, this is sensitive because it can also be abused and lead to political censoring, control, and so on).

These ideas are indicative only and are put forward to illustrate the intersections in need on contextual analysis.

CONCLUSIONS

The growing centrality of platforms for entrepreneurship is evidenced by the need for even the most powerful established brands to establish a presence on Amazon: Nike and Apple had resisted selling through Amazon in part out of fear of undercutting their existing vendors, but in 2018 they capitulated and began selling on Amazon (Galloway, 2018; Kelley, 2018). We have discussed how digital platforms have become a new context in which entrepreneurship takes place, and have become critical in influencing the process and outcomes of entrepreneurial actions.

We have shown that the contextual perspective sheds new light on an important research gap and provides an important alternative to the dominant policy discourses.

Inspired by the work of Cutolo and Kenney (2020) we suggest the dependency propensities of the current platform economy can be used as a platform for developing policies, but also that this perspective can benefit from incorporating insights concerning context. The chapter, however, does not assume quick-fix policies.

Finally, we argued for paying more attention to the role of non-entrepreneurs, who often face poor working conditions in the platform economy. Platform entrepreneurship should satisfy customers, owners and employees, not just the two first two of these.

Future research should elaborate on how the dependency perspective can better be incorporated with the contextual perspective and engage in empirical studies of how universalizing or globalizing mechanisms interact with local(izing) mechanisms in different places. There is a need to be open to understanding the motivational issues of many new platform contributors, such as YouTubers or lane builders to computer games, as this makes possible new insights concerning working conditions, network building and how different actors in different contexts deal with the dependency challenge.

NOTE

1. Joseph Schumpeter first theorized that new technologies or other market changes could open new economics spaces to be occupied by entrepreneurs who construct new business models capable of exploiting the opportunities.

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