Chapter 11
Entrepreneurship and Innovation in the Digitalization Era: Exploring Uncharted Territories

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ABSTRACT

Digital transformation is not a new phenomenon. Neither is digital entrepreneurship. But during the last decade, these phenomena are taking another dimension with the emergence of new digital-to-disruptive technologies that need to be mastered by individuals, groups, firms, organizations, and governments. Based on key concepts such as digitalization, entrepreneurship, and innovation, this chapter contributes to the literature on digital entrepreneurship and innovation by adopting an ecosystem approach. Then, this chapter provides an overview of the digital entrepreneurship and innovation ecosystem and its main components. Within this new philosophy of digital entrepreneuring, the chapter presents new trendy phenomena as precursors and enablers to boost digital entrepreneurial ventures and certain uncharted territories that need to be explored. At the end, the chapter advances new directions for future research in digital entrepreneurship and innovation. It concludes with the idea of democratization gained for entrepreneurship, innovation, and digitalization in this era.

INTRODUCTION

We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. Klaus Schwab, Founder and Executive Chairman, World Economic Forum.

Influenced by the dramatic and unprecedented evolution of digital-to-disruptive technologies (big data, IOT, AI, AR, VR, Blockchain, drones, 3D/4D printing, robotics and machine learning, autonomous cars…), we witness a technological shifting and deeper transformation of businesses in several activities,

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value chains and industries. The technology world has evolved since the emergence of such technologies and many of them have been widespread commercial deployment by individuals, firms and governments.

We live in a world where everyone is connected. Digital is everywhere and the digital economy becomes a golden opportunity for entrepreneurs and managers and their firms. In fact, in the digital economy and with the ever-expanding and ever-deepening reach of the Internet, new technologies from internet, mobile, and media have generated opportunities for entrepreneurs and innovative managers alike. Entering an era of the fourth industrial revolution, it is now the time of brilliant and disruptive technologies to gain global competitiveness, prosperity and sustainability (Brynjolfsson & McAfee, 2014; Curley & Salmelin, 2017; Schwab, 2017).

In his book, Kelly (2016) identified 12 inevitable technological forces that will shape the future and represent the momentum of an ongoing technological shift toward digital technologies, not just North America, but to the entire world. According to him, much of what will happen in the next decades is inevitable. The future will bring with it even more screens, tracking, and lack of privacy.

Being outlined in his book, these twelve trends will forever change the ways in which we work, learn and communicate. In other words, increased the fast-moving system of technology amplifies the following forces: Becoming, Cognifying, Flowing, Screening, Accessing, Sharing, Filtering, Remixing, Interacting, Tracking, Questioning, and then Beginning. In fact, *sharing* and collaborating at mass-scale both encourages increased *flowing* in real-time for everything and depends upon it. *Cognifying* by making everything much smarter using cheap powerful Artificial Intelligence requires *tracking* of everything for the benefit of citizens and consumers (diet, fitness, sleep patterns, moods, blood factors, genes, location, and so on). *Screening* or turning all surfaces into screens is inseparable from *interacting* and being immersed in a different world (Virtual Reality). According to Kelly (2016), the verbs themselves can be *remixed*, and all of these actions are variations on the process of *becoming within* a series of endless upgrades. Thus, a*ccessing* means having access to services at all times without owning them and a *remixing* of products in all possible ways to harness intense personalization through *filtering* and anticipating customers' desires. It's the *beginning of a* planetary system constructed to connect all humans and machines into a global matrix.

The technological shifting toward digital-to-disruptive technologies has impacted the ways of creating, doing and innovating businesses but also the ways of transforming established ones. According to the European Commission (2017), digital technologies diffusion has been growing rapidly over the years and is expected to continue to expand around 8% of GDP in 2015 to around 25% by 2030. Accordingly, calling firms to optimize digital investments to realize higher productivity and growth, Knickrehm et al., (2016) showed how the smarter use of digital skills, technologies and other assets could boost productivity and generate US$2 trillion of additional economic output by 2020.

Since entrepreneurship and innovation have become the watchwords for so many individuals and organizations seeking for prosperity (Acs et al., 2017c), digital entrepreneurship and innovation has been viewed also as a critical pillar for economic growth, job creation and competitiveness by many countries (European Commission, 2015). To boost them successfully, Nepelski et al., (2017) focused on 7 issues published within the European Innovation Policies for the Digital Shift (EURIPIDIS) project and related to capacity building; entrepreneurial culture; ecosystem and collaborative interactions between various players under an easy technological interoperability; adequate funding for the scaling-up of digital businesses; and a balance between provision of incentives to create new products and the stimulation of knowledge dissemination.