
Editorial: Ubiquitous technologies and social media: how do technology innovation and management impact on youth entrepreneurship?

Manlio Del Giudice

ESG Management School,
25 Rue Saint-Ambroise,
75011 Paris, France
E-mail: manlio.delgiudice@unina2.it

Technology and social network-based entrepreneurship form a critical link between development of knowledge and economic growth, and thus it is a prerequisite of implementing innovation inside fast-growing companies (Nicotra et al., 2014). Even large investments in knowledge and technology development will not ensure economic outcomes if not supported by the entrepreneurial opportunity seeking and commercialisation of ubiquitous technologies. In this scenario, social networks (e.g., Facebook, LinkedIn, and Twitter) re-created the way by which individuals and businesses use technology and internet. New generations of internet applications and social media services build on active social networks, feature personalised content, and offer the ability to exchange data and media with other users. The emergence and popularity of online social networks in recent years has changed the internet ecosystem leading to a more collaborative environment (Del Giudice et al., 2014). The importance of this phenomenon for research in social sciences and technology management is clearly evidenced by the more and more associated emerging technologies and applications including online content sharing services and communities, multimedia communication over the internet, social multimedia search, interactive services and entertainment, health care and security applications (Del Giudice and Straub, 2011). Particularly, social networks provided great opportunities for the development and growth of (mainly but not only) technology-based companies run by young entrepreneurs (e.g., students, researchers). Social networks can play the role of core service and/or critical communication channels of these companies. Albeit the connection between social networking and young entrepreneurship is quite common and strong, literature about this phenomenon is still scarce.

The aim of this special issue has been to explore how ubiquitous technologies and social networks and media foster the emerging of youth entrepreneurship and the development of innovation processes inside them (including the ones related to technology education). Furthermore, this volume is devoted to examine social networks as a new multidisciplinary research field that bridges business studies and technology management.

Several research questions stemmed out from the quality articles selected and we may briefly summarise them. We learned from the literature how entrepreneurs embrace new technologies in search of opportunities in existing and new markets. But which social media applications best enable new innovation practices? What are the technologies that

allow entrepreneurs to successfully experiment with social media and networks? Do innovation processes that emerge from social networks or communities differ from the processes inside traditional organisational boundaries? The papers selected aim to answer to all those questions.

Then this special issue presents original research findings aiming at contributing, at a practical level, new knowledge for both researchers and managers interested in the management of ubiquitous technologies as well as for young entrepreneurs willing to start a new business. The selected papers include contributions from Italy, China, Korea, and the UK and discuss empirical findings across multiple levels of analysis in a wide range of sectors. The research methodologies used for gathering empirical data vary from quantitative surveys to exploratory case studies based on qualitative data. Several rounds of blind peer review resulted in the final form of this volume in January 2014 for publication here. All articles selected demonstrated relevance to the understanding of social software and its implications for business and innovation. Readers of this special issue should be technically savvy, scientifically demanding, and drawn to practically relevant phenomena.

The article entitled 'Extending the DART model for social media' has been written by Francesco Schiavone, Concetta Metallo and Rocco Agrifoglio; it presents the DART framework, one of the most appreciated theoretical arguments about the co-creation of new products and services by firms with the support of customers. During the recent years, many companies are progressively using web and social media in order to develop and/or design their new products and services with the support of users. The aim of authors' study is to extend the traditional DART framework with a fifth dimension: technology management. The study reports the case of *Lost in Google*, a web-series of an Italian independent video-making company and their analysis shows that technology management is a primary dimension in order to manage properly co-creation by social media.

The second paper, titled 'Instant messaging adoption in China: implications for young entrepreneurs', by Suodi Zhang, Ping Gao and Jinghua Li, is approaching a relevant topic for technology management: the instant messaging (IM), a worldwide popular internet application (Huang and Yen, 2003; Kim et al., 2007). In China, there are more than ten IM products competing with each of them, Tencent's QQ, promoted by young entrepreneurs, is dominant, taking about 90% of the market share. This article identifies the factors determining the adoption of QQ by students and staffs in a Chinese university; therefore, practical implications for young entrepreneurs aiming at entering the IM business are offered.

Another intriguing research study stems from the article by Juneseuk Shin: 'New business model creation through the triple helix of young entrepreneurs, SNSs, and smart devices'. His paper clarifies the causal paths from complex dynamic interactions among young entrepreneurs, social networking sites (SNSs), and smart devices to new SNS-based business model (BM) creation. The article presents empirical data which have been collected through interviews with 102 CEOs in Korean SNS-related venture companies. The empirical model aimed at analysing how the triple helix model may influence BM innovation (Garner and Ternouth, 2011). Thus, the author identifies and describes four types of new SNS-based BMs. The research study finds that entrepreneurs should focus their attention on combining SNS resources with smart device characteristics, helping them create value in a profitable way.

The fourth paper selected for this volume is 'Social shopping communities as an emerging business model of youth entrepreneurship: exploring the effects of website characteristics': it has been written by Hong Zhang, Yaobin Lu, Ping Gao and Zhenxiang Chen and it focuses on the social shopping community (SSC), an emerging e-commerce BM of youth entrepreneurship that generates revenues through facilitating online purchase. In this research article, the authors develop a model based on the stimulus-organism-response (S-O-R) framework and use it in order to investigate how website characteristics may influence consumer's cognitive and emotional trust in SSCs, as well as how trust in turn affects their purchase intention. The paper has been supported by a large survey of 405 members of Meilishuo, a Chinese SSC. The research work contributes to understand the dynamics that govern consumer behaviour in SSCs; furthermore it provides useful insights into how young entrepreneurs can tap the economic values of social commerce.

The fifth article joining this special issue is entitled 'An analysis of a model for the diffusion of engineering innovations under multi-firm competition' and it has been written by Luca Vincenzo Ballestra, Manlio Del Giudice and Maria Rosaria Della Peruta. The authors present a theoretical and experimental analysis of the model for diffusion of engineering innovations that has recently been proposed by Hongxing and Pengfei (2012). These types of innovations are gaining always greater interest among young entrepreneurs and numerous empirical studies showed how emerging media have facilitated their spread in recent years (Peres et al., 2010). The authors, under a very mild and realistic assumption on the innovation coefficients, show that a unique solution defined on the whole set of (positive) times does always exist. An experimental assessment of the model is performed by considering the case of the US satellite radio market. Such an analysis highlights that the model presented can be useful for young entrepreneurs because it helps predicting the dynamics of the firms already present in the market as well as the evolution time of new start-ups.

Finally, the last article in the present volume is titled 'Social media platforms and technology education: Facebook on the way to graduate school' and it has been written by Jens Mueller, Maria Rosaria Della Peruta and Manlio Del Giudice. The authors' proposition is that social media today includes many activities that expand the original messaging through AOL into context-rich socialising with the transmission words, pictures and videos, on several platforms, some commercial (i.e., Twitter, Facebook, Google, etc.) some non-commercial (e-mail, messaging, etc.). University systems for communication among faculty and with students, such as Moodle and Blackboard, have a hard time keeping up in student appeal and ease of operations, and thus, it is an appropriate time to review how these new methods of connecting affect technology education which is widely affecting the students' willingness to engage in new business (Hughes, 2009). Social media clearly adds new methodologies to the way humans interact and how they relate to the organisations with which they interact. In their research study, focused on a leading Management School in New Zealand, the authors assess the level of technology use and specifically the use of Facebook for communication and tests. A total of 169 students provided feedback on how they perceived the value of Facebook as part of their graduate school education in management. With the high uptake of and comfort level with smart phones and tablets in higher education, authors then conclude that using Facebook for some teaching

applications (like technology education) is more promising than some of the university-based intranet services available for teaching support.

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