

Special Issue on Business Models for Mobile Platforms: Guest Editors' Introduction

The impact of the convergence of mobile and internet technologies and products on the structure of the mobile industry, and in particular on the position of mobile network operators as integrated service providers has been a subject of continuous debate between proponents of 'open' versus defenders of 'integrated' business models. Increasingly, however, it has become apparent that, instead of relying on any outright 'open' or 'closed' strategy, successful mobile ICT companies employ 'open but not fully open' platform strategies in order to combine advantages of diversity and complementarities with advantages of control and coordination (see e.g. [1]-[3]). This has opened the door to a much more in-depth analysis of multi-actor and multi-sided mobile platforms, that moves beyond superficial dichotomies and explains the current dynamics in a more realistic manner.

Mobile platforms may refer to various system levels, including mobile devices' operating systems, mobile network protocols, mobile services and applications, and so on. Through platform ownership, companies aspire to position themselves as central gatekeepers in the mobile industry. This evolution presents a range of new possibilities to create and capture value in new and unexpected ways. At the same time, it challenges the traditionally dominant stakeholders active in the mobile industry, and has led analysts to anticipate a reconfiguration of the entire mobile industry architecture. Service and content providers have to consider how to deal with the multiple available platforms. While some service providers see mobile platforms as a mean to control the market, others consider them to be yet another channel. Moreover privacy concerns for users are becoming more of an issue.

In the wake of a buoyant and turbulent year for mobile service platforms, this special issue focuses on the causes and effects of the current explosion of platforms in the mobile ICT industry. The objective of this issue is to explore changing business models and industry architectures as a result of the introduction of mobile platforms. The issue contains original papers on this central topic that discuss characteristics of successful business models in this field, the emergence of new architectures, new mobile eco-systems, and the competition and collaboration between media, IT, internet and telecommunications companies. It focuses on individual platforms and applications, as well as on cross-platform comparative studies and takes into account technological issues, value creation in multi-actor settings and governance of new mobile ecosystems. The papers collected here include different perspectives, ranging from techno-economics to marketing and from engineering to social applications.

Neelakanta and Yassin discuss co-evolution of technologies and competitor behaviour from the perspective of a biological ecosystem, and at the same time, try to mathematically model the techno-economic behaviour of competitors in the mobile market in terms of prey and predator. Their analysis focuses on the iPhone, Android and Symbian platforms, referring to traffic shares in the US market as data. The relevance of their approach is to show that market development can be analyzed as a complex adaptive system, and that (d) evolution of markets follow a non-linear path. They mainly compare the iPhone with Symbian, and Android with Symbian platform in an ex-post manner. It can be argued that in addition, an ex-ante analysis of the competition between iPhone and Android is also highly desirable. Moreover, in light of the recent strategic choice of Nokia and Microsoft to collaborate closely on mobile platforms, it appears to be interesting to test the predictive validity of their model in future research.

Campbell and Faheem Ahmed study the mobile Operating System ecosystems from the perspective of the software engineering industry and specifically focus on the role of business processes. They assess how the robustness, productivity and niche creation criteria of lansiti and Levien [5] can be used to assess the four mobile platforms under study, i.e. Apple App store, Blackberry App World, Google Android Market and Nokia Ovi Store. The selection is of interest to the discussion mentioned earlier, as Apple and Blackberry are often framed as closed or semi-closed platforms, while the other two platforms are based on open source technologies. Next to an external market assessment, the authors' focus is on the effectiveness of the registration, development, testing & support, and distribution processes for the four platforms. Although the business models for the four platform providers appear to be quite comparable, and focus on encouraging participation of developers and other actors in the ecosystem, it is also shown how platform providers set up specific governance mechanisms to control their market space. The authors indicate that these governance mechanisms might be decisive for the question if the platform will serve a niche or a generic market.

Whereas Campbell and Faheem Ahmed focus on the optimal or suboptimal workings of software ecosystem, Müller, Kijl, and Martens focus more on the value exchange between the business actors in the mobile platform ecosystem. They make use of Gordijn's e3-value modelling tool [4], and take the discussion on open and closed aspects of platforms a step further by looking into economies of scale, platform differentiation, quality assurance and network effects. Their expectation is that in the long run, the open-closed discussion will be replaced by a focus on competitive differentiation and segmentation strategies.

Moving beyond the discussion of current mobile application platforms, Raivo and Luukkainen look into the role of telecom operators, and the degree in which a telecom operator can make use of open network API's in order to transform their system from a one-sided to a two-sided market platform. The trade-off to be considered is that, by opening their platforms, telecom operators are likely to lose a significant part of their controlling power, while on the

other hand multi-sided platforms have proven to drive innovation, and to foster same- and cross-side network effects. In their case study the authors deal with technical and business aspects of open APIs for identity, location, messaging et cetera. They refer to economic implications like network effects, economies of scale and pricing, as well as to technical implications like scalability, interfacing and multi-homing. It appears from this paper that, while regulation proved to be a hindering factor, the open telco model presents a quite exciting concept, enabling mash ups and making controlled innovation possible for telecommunication operators. Further research in this area, i.e. in the context of mobile cloud computing, seems to be highly relevant.

The last two papers are more specific in scope and focus on privacy in relation to location-based services, and on social applications in the mobile domain, respectively. Liu, Bonazzi, Fritscher & Pigneur present empirical research that is focussed on the trade-off between personalization and user pay-off. Their analysis leads to suggestions about how and where to implement privacy-friendly business models. They also discuss the kind of business roles that might be attractive for market players, such as privacy brokerage, or implementing privacy management software on mobile platforms.

Finally, Cortimiglia, Ghezzi and Renga investigate the design and evolution of Mobile Internet, Web 2.0 and content sharing technologies, as well as the implications of their convergence for mobile business models. The focus is on the Spanish-speaking market, and includes a web-based content analysis as well as seven extensive cases that deal with different forms of technology delivery and revenue appropriation. Based on this, the authors are able to elicitate a range of critical success factors for content sharing and social network applications on mobile platforms.

With this set of papers, we present a broad set of views and research approaches related to business models and platforms in the mobile domain, and hope to offer the reader an exciting entry into this complex and highly relevant research domain. We have intended this special issue to be relevant for academics and practitioners alike. We expect the various 'shades' of openness of platform models, the positioning vis-à-vis mobile platforms by telecom operators, hardware providers and service developers, and the impact on innovation in (one-sided or multi-sided) markets to be on the research as well as industry agendas for several years to come.

Pieter Ballon¹, Harry Bouwman² and Yufei Yuan³

Guest Editors

¹ Free University of Brussels, Interdisciplinary for Broadband Technology-SMIT, Pieter.Ballon@vub.ac.be

² Delft University of Technology, Faculty of Technology, Policy, and Management, W.A.G.A.Bouwman@tudelft.nl

³ McMaster University, DeGroote School of Business, yuanyuf@mcmaster.ca

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