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Smartphones, platforms and business models: policies for the apps economy

Blog Editor

The combination of mobile technologies and cloud computing lower the cost of experimentation and innovation in what we can call the "apps economy". Patrik Karrberg at LSETech shows how an understanding of delivery platforms, especially its architecture and related business models, could be used to identify key success factors informing policy makers. Patrik has received research funding from Research Council UK (New Economic Models for the Digital Economy) for his work on platform innovation, due to be presented autumn 2013.

The apps economy is a lead indicator for investments and innovation in the telecom industry

In a previous post LSETech reported on the size of the smartphone service sector for cloud services in the UK, US, Germany, and Italy. One challenge when estimating the size of an emerging industry is the lack of readily available macro-economic indicators. Another challenge I will deal with here is how to identify the platforms connecting developers to apps users, and the resulting competitive landscape that policy makers should address.

We can consider smartphone services, and in particular the apps economy, as a leading indicator for investments and innovation in the telecom industry overall. The information and communication sector contributes some 4.5% to European gross value-add in 2011 and is an important high-tech employer. Previous research shows that mobile phone penetration correlates with GDP growth, and as apps are now integral to smartphone usage, we believe that studying it contributes to our understanding of the manner in which mobile phones relate to economic growth.

Two views of delivery platforms: "Supply-chain" and "Exchange"

Understanding how apps delivery platforms connect markets for software development and cloud infrastructures is necessary background for policy makers interested in evidence about the manner in which ICT relates to public goals.

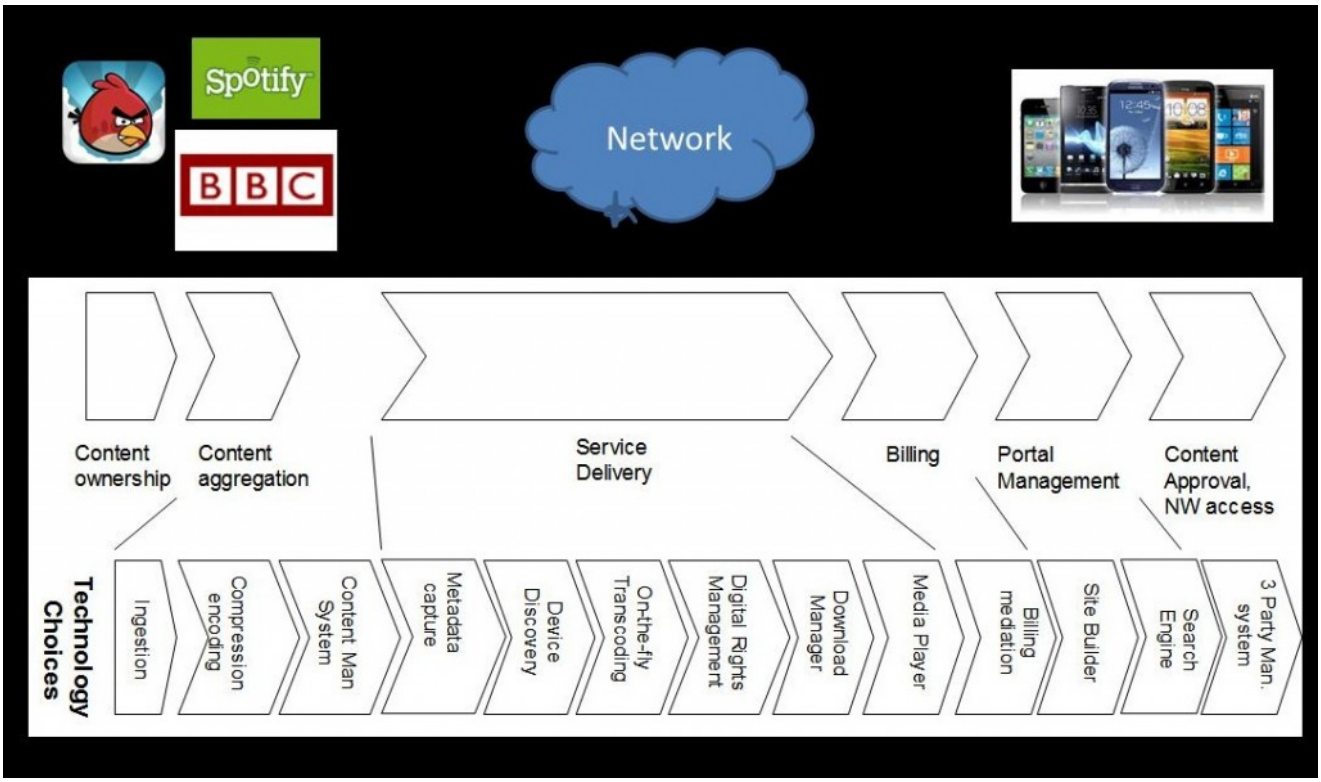

Fig 1: Service delivery components

The three basic components of delivery platforms could be seen as mobile devices, enabling software, and cloud data centres. The apps economy features low switching costs between mobile devices and low entry barriers for small firms utilising cloud computing. So long as apps developers conform with the requirements of gatekeepers such as Apple and Google (through iStore and Android) and mobile services providers, this offers a dynamic and growing marketplace which contrasts with many other industries in the current economic climate.

A typical apps delivery platform would perform one or several of the following functions: content origination, content aggregation, content adaptation, billing, content presentation, and content approval. We can view such platforms in at least two ways: firstly "supply-chain" platforms (linear) where architectural components gradually refine and deliver the content to user devices. This would be applicable to a specific platform delivering, for example, mobile games to users over a desktop website. A platform where architectural components are easily exchangeable would increase the chance of modular innovation and therefore adaptation of delivery to a changing market (in terms of devices, networks, and user preferences).

A second perspective of platforms is to view them as an "exchange" that connects apps from multiple industries. If we view Apple's iOS as such an industry platform it interconnects users with a multi-sided market of apps from the music, gaming, ticketing and TV industries through its apps store. The platform collects cash, user information, and in return provides advertisement and delivers content. A delivery platform connecting apps from different industries could be seen as achieving the status of such an exchange (of cash, ads, and user data). It features almost negligible switching costs and high complementary value among its architectural components.

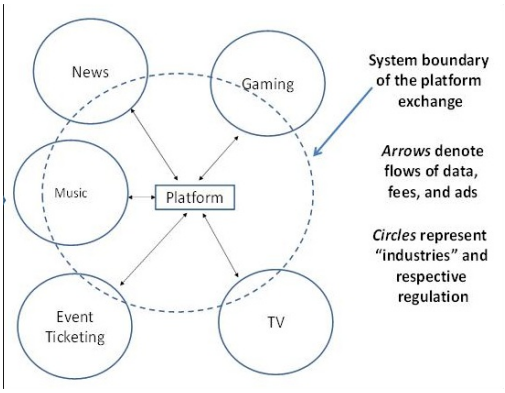

Figure 2: A mobile platform with negligible switching costs and high complementary value, could be seen as an *exchange*

Success factors for platforms: "Exchangeability" and "Complementarity"

In this sense we could analyse platforms as a supply-chain for a particular product, or as an "exchange" when it connects several industries (as with i-mode, Android, iOS, RIM Blackberry, etc.). Typically the telecom industry in the 2000s was viewed by policy makers as a supply chain delivering voice, data, or messaging to users. The focus of interventions has been one of market power and prices. In such cases where this view makes sense, policy makers could address high *exchangeability* by assisting in decreasing switching costs to promote the single market for skilled staff and firms (to assist ailing EU SME growth). However, in cases where we would like to analyse aspects of convergence on an industry level, for purposes of business models, strategy, implications of legal frameworks, etc., the exchange view could be a more useful tool. If we break down delivery platforms to their basic functions the complementarity of these components would enable a platform to deliver contents from several industries. Policy makers should attempt to support firms in their pursuit of high *complementarity* by addressing IPR, data protection & cross-industry regulatory silos.

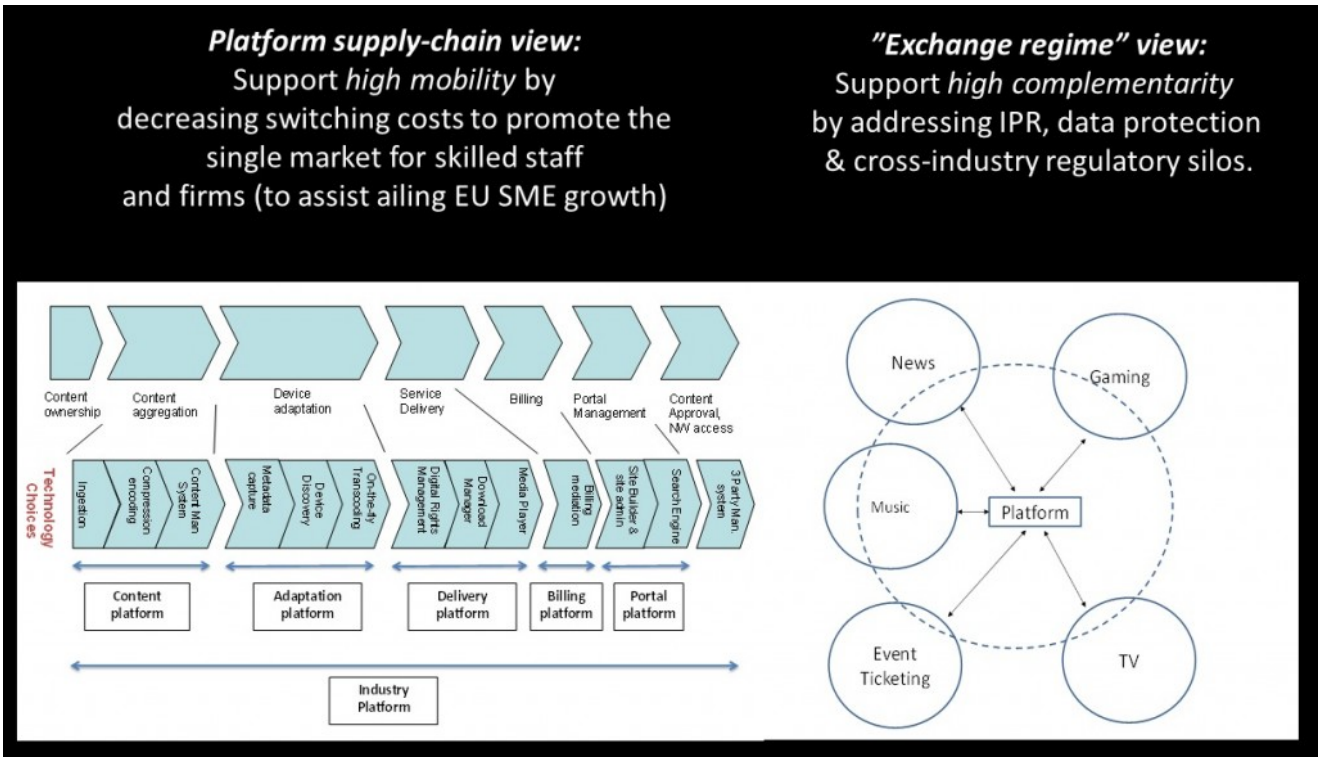

Figure 3: App policy components beyond telecom for content delivery in supply-chains and exchanges

In this sense supply-chain platforms can focus on exchanging components through modular innovation, what we could call flexibility among components. Innovation with platforms that we view as exchanges focus on finding complementary components that fit with each other, connecting a multi-sided market.

Europe's app economy needs long-term investment climate, not industrial interventionism

Policy for the apps economy must reflect characteristics of platforms in order to support the future growth of the industry. Echoing what some have discussed in the LSE Network Economy Forum, Europe does not benefit from more industrial policy and interventionism built on short-term political agendas. Policy makers should instead focus on creating favourable conditions and leverage existing technology strengths rather than interventions that could harm the investment climate. Europe has competitive advantages in developing networks and economies of scale, so it is disappointing that the European market is still characterised by poor growth and few global champions. The key to today's policy must be further stimulations of these ICT markets, with an informed view of growth factors, such as delivery platforms supporting the growing apps economy.

This article gives the views of the author, and not the position of the London School of Economics.

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