

Control and Value in Mobile Communications

A political economy of the reconfiguration of business models in the European mobile industry

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While digital mobile communication has constituted, in parallel with the Internet, the most impacting innovation of the past decades in terms of how people interact and exchange information - and this first and foremost in Europe -, its business and technological set-up is now facing profound change. Up until now, evolution in the European mobile industry has happened to the rhythm of sequentially introduced generations of 'cellular' technologies. This process was coordinated and dominated by mobile network operators and mobile equipment vendors, and was actively supported by governments and regulators. Since then, the linearity and synchronicity of mobile evolution have come under pressure, yet developments in Europe have remained firmly centred around so-called 3G cellular systems, and the companies operating and supplying them. Currently, the emergence of various types of software platforms and internet-like end-to-end architectures in mobile systems, as well as the expected breakthrough of a range of alternative wireless network technologies, are increasing the pressure on the dominant technological and business set-up, to the point of a 'reconfiguration' of the entire mobile system.

A strong current in business and academic literature is arguing that the 'open and modular' internet architectures will (or should) wipe away the current 'closed and integrated' telecommunications architectures. It is often implied that, as a result, (mainly US-based) internet and IT firms are bound to make significant inroads into the telecommunications market. By contrast, others anticipate that the advantages in terms of quality and security offered by integrated telecommunications architectures will allow mobile operators to dominate the mobile internet and to capture a major share of all service revenues in this context. Recently, however, a small body of 'revisionist' literature on modularity and the ICT industry has emerged that, if applied to the 'mobile internet', may challenge both visions. It argues that there is no automatic mirroring between technical modularity and market unbundling, and that, instead of relying on any outright 'open' or 'closed' strategy, successful ICT companies increasingly employ 'open but not open' platform strategies in order to combine advantages of diversity and complementarity with advantages of control and coordination.

This thesis applies and tests these arguments in the context of mobile *service* provision and mobile *access* provision by the European mobile industry. It hypothesises that intense platform competition is increasingly observable in this industry and is driving a drastic redesign of its 'business models'. For the purposes of this research, a business model is redefined as the 'architecture' of a specific business, i.e. the way in which a network of firms intends to create and capture value with a product or service. It is argued that from a political economy perspective, the guiding question for any business model should be "Who *controls* the value network and the overall system design?" just as much as "Is substantial *value* being generated by this model?". This approach aims to contribute to the revitalisation of the political economy of ICT (re)design, which stresses that control configurations, power

relationships and different forms of bias pervade technological architectures, and that they profoundly influence the individual, societal and economic value generated through these architectures.

In terms of the empirical analysis, it is argued that a nuanced and ‘evidence-based’ approach is necessary if easy but inherently faulty ‘open versus closed’ dichotomies are to be avoided. Real-life cases studied in the thesis include Vodafone Live!, the Apple iPhone, Facebook Mobile, Google Open Social, and next-generation mobile network technologies. In addition, two series of in-depth interviews were conducted with decision makers and technology strategists at Nokia, Motorola, Ericsson, Vodafone, France Telecom, Telefonica and so on. The conclusion is that the central hypothesis on the ‘platformisation’ of mobile business models can be confirmed for the domain of mobile service provision, and can be confirmed in a more nuanced and conditional way for the domain of mobile access provision, i.e. as a feasible scenario of which the realisation is dependent a.o. on regulatory measures related to network competition.

In the case of mobile service provision, this reconfiguration - while certainly not conforming to the simplistic template of ‘wiping away mobile operator involvement’ - is bound to be strongly disruptive to current business models, as operators will have to share control over crucial gatekeeper roles as well as over the customer relationship with other actors. Still, if they succeed in mastering the changing mindset related to a ‘platformised’ business model, there are a number of compelling reasons for mobile operators to continue to play an active role in this domain. In the case of mobile access provision, the strategically feasible platform models put platform leadership as well as customer ownership safely in the hands of the operators.

What these results indicate, is that the abundance and commoditisation created by platform models will as a rule be accompanied by strategies of control and scarcity around ‘gatekeeper roles’, regardless of the type of actor controlling the platform. This should at least temper any illusions about the completely open nature of competition in the ‘mobile internet’ world. Also, they suggest that platform models aimed at exploiting user data are characterised by different, but not necessarily more ‘realistic’ or ‘optimal’ control and value configurations, than models aimed at directly monetising services or service enablers. Overall, they show that the crucial debate on the interrelation between particular control configurations and particular value configurations in mobile communications deserves a more nuanced assessment than any simplistic open vs. closed dichotomy can provide.