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Challenges to European internet business models - governing a fragmented internet

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Challenges to European Internet Business Models:

Governing a fragmented internet

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Abstract

In this paper we use modularity theory to show that legacy governance and the myth of a layered, uniform, global, neutral and democratic internet undermines European digital economy business models. At the core of the problem lie a series of misapprehensions about what can and should be measured and reported, and how such analytics are used for business strategy, policy making and civil society advocacy. We present the analysis of over 200 reports and studies of internet metrics of demand and use and illustrate how better analytics can explain business practices by showing how digital goods and services are valued, monetised, and measured for data quantity and transmission qualities. This is central to our understanding of the size and shape of the internet and provides the basis for explaining both how and why European (and per force other regions') internet differ and also what effect that has on the ability of Europe's internet business models to compete.

The idea of multiple internets is not novel and research over the past few years (Liebenau et al., 2011 and 2012) has shown how new analytics can be applied to reveal the context for European provision of digital services. Coupled with breaches of privacy, recent reports of widespread monitoring remind us that the internet is neither global nor flat, but contained in geographical jurisdictions and modular architectures (Yoo, 2012). This idea is worrying to advocates of a universal internet, as envisaged by the ITU, the Internet Society, the World Wide Web Foundation, as well as multinational digital content and services companies. The recent decision of the United States Circuit Court of Appeals for the District of Columbia in striking down the Federal Communication Commission's 'net neutrality' rule in its 2010 "Open Internet" order in the context of the merger proposal between Charter Communications and Time Warner Cable is further evidence of rapid change in the governance of a fragmented internet.

The exploration of possible scenarios for the future of the internet has been the source of multiple debates, reports and studies (Rueda-Sabater & Derosby, 2011). Now the demand for a clarification of what is stored, where the storage is physically located and who has access to it changes the idea of a free flow of data through exchanges. But can multiple internets exist stably? Can we conceive of multiple internets not as walled gardens, but as internets where certain requirements have to be fulfilled to save the privacy of individuals? Our analysis draws from Claffy & Clark (2013) and Gawer (2009) of an internet based on multi-platforms and providing digital services. At the core of the question of the sustainability of the internet is the problem of which metrics are needed for governance and who can utilise the relevant data.

In the European context these questions have special significance with regard to how internet business is sustained and in which ways it can develop. Since 2007 data traffic patterns have changed dramatically, but not evenly, around the world. Massive video traffic, new smartphone functions, the convergence of voice services to VoIP, and the changing architecture of the networks have redrawn the shape of competition. Over the past three years we have been challenged to assess the economic significance of rapidly growing phenomena such as the so-called "over the top" services [OTTs] and the roles of content delivery networks [CDNs]. This analysis has hardly affected the longstanding practice of special pleading from incumbent telecom operators – particularly in Europe – to regulators to protect their revenue streams. In parallel there has been a shift in demand patterns and usage, which has shaken the internet business models of privacy, security, identity and changed the shape of the internet.

The new shape of competition, challenges to net neutrality concepts, and the NSA/GCHQ monitoring had the effect of making people wake up to the fact that the system does not have the governance controls that they had assumed. Many longstanding assumptions about the architecture are now demonstrably fallacious and based on a 1960s layered model, such as the character of seamless interconnection and implicit protection against diversion and inspection. However, most learned discussions and policy initiatives on the future of the internet still refer to those as the primary models.

What is measured and how it is measured will have direct influence on the regulatory practices to be implemented in Europe. Appropriate measures are necessary to provide evidence-based policy making with regard to sensitive data, including personal, governmental and financial data that will force many to reconsider their expectations from cloud services and access to big data and open data sources. Impending regulatory changes will affect the creation of new business models for international customers. In this context new internet metrics can serve commercial purposes, especially with regard to the ways in which these new business models will be priced and negotiated (Lehr, 2012).

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