Standardization and Business Models for Platform Competition: The Case of Mobile Television

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Abstract

This article explores the relationship between standards and business models, illustrating the conceptual linkage with reference to developments in the mobile communications industry. A case study of the DVB-H standard for mobile television shows that regardless of institutional orientation or process, the most important standardization strategy for equipment and service providers is to create platforms that are open to the development of complementary products and services while at the same time preserving the proprietary edge necessary to ensure lock-in effects. The case yields strong reasons to consider that standards now play a significant role in establishing business models for electronic service environments and that business modelling considerations now influence many of the technical decisions.

Keywords: business models; DVB-H; mobile TV; platform competition; standardization

Introducing the Problem

Traditional views of standardization focussed mainly upon its public goods characteristics and assumed that most standardization occurred late in the product development process when technology was mature and the latter stages of the product cycle were being reached (Vernon 1966; Kindleberger 1983). Particularly regarding the so-called ‘high-technology’ industries, subsequent theories began to situate standardization much further upstream, focussing upon how standards could influence the innovation process by building up positive returns to adoption and creating path dependencies (Arthur 1989, Katz & Shapiro 1986, David 1985). This opened the field up to critical exploration of the strategic role that standardization could play, not just in coordinating technologies but also in organising markets (Blind 2004, Schmidt & Werle 1998, Hawkins 1996).

Arguably, one of the current manifestations of the increasingly important role of technical standards in the business strategies of firms in
the information and communication technology (ICT) industries is the decided shift away from the practice of setting industry-wide standards through accredited standards development organizations (SDO) and towards the practice of establishing technical specifications in independent consortia, each of which is focussed either upon a single technical area, or upon a relatively narrow range of technical areas (Hawkins 1999). The consortium phenomenon is not new – various computer and communication industry trade associations have been active in defining standards, formal or otherwise, since the 1970s. What has changed is that since 1990 the quantity of consortia has escalated dramatically from only a handful to over 350. But although some of these consortia may use similar methodologies to those employed in SDOs, there is often little or no formal coordination between the products of different consortia, or between consortium specifications and formal standards.

The conventional rationale behind the consortium phenomenon is that for rapidly developing technologies, the slow pace of SDO processes creates time-to-market issues. The problem with this view is that as more informal alternatives proliferate, additional coordination costs are created. Moreover, no convincing evidence has ever been presented that the consortium phenomenon has solved the time-to-market problem. Indeed, according to an increasing number of observers, the net result has been both to slow down the standardization process as a whole and to undermine the positive effects of variety, cost and risk reduction that are expected of standards.

Moreover, as Cargill & Bolin (2007) observe, many stakeholders may be participating in consortia for reasons other than procedural efficiency, and that this may indicate an important change in the nature of the relationship between standardization and the firm:

"... consortia were ... often more visible within a company than were formal organizations, because consortia were directly tied to the product success of a company. In other words, a company joined a consortium to promote the creation of a specification that it needed for market reasons—there was an imperative behind the consortia's creation. The same imperative was not necessarily found in formal organizations."

Cargill & Bolin (2007) pursue this observation in the context of re-establishing a standardization system that is more ‘neutral’ to the business strategies of particular firms. There are merits to many of their arguments that too much ‘strategy’ and not enough technical quality or coherence may inflict harm on key parts of the ICT infrastructure that are important to all stakeholders. Indeed, Blind et al (2007) present additional empirical evidence that a variety of stakeholders are beginning to re-evaluate the position of consortia in the standardization system.

Such questions aside, however, what interests us here is precisely how and why the relationship between ICT businesses and standardization has changed or is changing. Irrespective of whether from this point forward the number of consortium-based initiatives expands or contracts, examination of firm behaviours in the consortium context has made relationships between individual technical specifications and the strategic commercial agendas of specific stakeholders much more visible. Businesses appeared to be joining consortia, virtually on a product-by-product basis, for the specific purpose of organizing markets by coordinating technology, thus providing unparalleled opportunities for scholars and business strategists to observe these dynamics at the product or service level.

In innovation studies generally, there has been an increasing trend to focus less on measuring the production of technology and more upon understanding the process of transferring new technologies to markets, or more precisely, to understand how new markets can be created around new technologies (von Hippel 1988; Cowan et al 1991; Bresnahan et al 1996; McMeekin et al 2002; Tidd et al 2005). One of the key elements in this regard concerns the
Summary and Conclusion
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