

PROPERTY RIGHTS IN THE BROADBAND SPACE

by

Christopher T. Marsden *

A. Introduction

In this conference review, I examine in turn the current state of broadband market and policy development in [a] infrastructure investment; [b] TV intellectual property rights in the on-line environment; [c] the streaming media market which is currently dominated by audio servers (essentially recorded music); and [d] the Internet Service Provider market. It will be seen that in real property (local loop and radio spectrum), intellectual property (TV and music rights) and the services offered by intermediaries (ISP portals), the development of markets has been severely hampered by the failure to delimit and efficiently transfer property rights. It is not an exaggeration to state that the development of the concept of property rights, together with a consistent and measured examination of the public interest in regulating and assigning those rights, are the primary challenges for both governments and market actors, beyond even the extraordinary pace of technological innovation which is creating the space within which those rights will be exercised.

North and Williamson have demonstrated that property rights are the basis for transferable wealth and therefore economic development. The latter – following Coase – has shown that where transaction costs in property rights are sub-optimal, corporations will be formed, internalizing those rights within organizations. Failing property rights transfer, economies are reduced to barter, in which roughly equally valued goods and services are exchanged without monetization. This paradigm, that without property rights being efficiently assigned, monetization of transfers is inefficient where possible, and replaced by barter, is the situation pertaining to much of the broadband media market. This applies to traditional broadcasters and Hollywood studios, but also to the arch-monetizers of broadband, the pornography industry, and to the providers of infrastructure for broadband connectivity.

* A review of four conferences: Converging Communications 31 January 2001 (Global Communications Consortium, Regulation Initiative), Streaming Media Europe 12 October 2000 (Streamingmedia.com), TV Broadcasting Online 16 February 2001 (IBC Conferences), Ispconeurope.com February 2001

B. Infrastructure: Global Communications Consortium Seminars

It is now something of a truism to state that the global economy, based on the bond investments of OECD industrialised nation banks, has been bet on the fibre-optic and Dense Wavelength Division Multiplexing (DWDM) networks which carry gigabit densities of information. These investments, in turn, depend on their customers, the providers of switchers and routers for communications networks, and their clients, the telcos (including Cable & Wireless, Global Crossing and WorldCom, the major Internet backbone providers). The telcos face two massive challenges, which have become especially profound in the European market: spectrum sales and local loop unbundling. It was these two property threats or opportunities which dominated a conference at London Business School, despite the persistent threat of personality contests which were otherwise represented.

Globalization of the telecoms industry creates tensions between national regulators. This is most obvious in policing of the electro-magnetic spectrum, where a scarce resource must be shared and new services planned so that technical interference is minimized. However, regulatory interference has caused chaos in the auction of 3G (UMTS) licences for mobile telephony. Regulatory participants Martin Kurth of German RegTP and Jens Arnbak of Dutch OPTA described how their mobile auctions had caused the cost of capital to rise for their national telcos, respectively Deutsche Telekom and KPN. This was caused by the high cost of the UK and German auctions, the low cost of the French and Swedish 'beauty contest' auctions, and the 'middle way' in Holland and Spain. Such differentiated outcomes have caused 'winner's curse' for the Dutch, German and UK winners, and the future of those telcos who had over-invested in their mobile licences would be in part paid by fixed line customers, who would have higher phone bills as a result of the credit agency downgrading of the now-enormous telco debts. Though they were too polite to mention, this is a particular problem for British Telecom, which failed to raise finance through a bond issue as DT had done early in the process.

Insiders at the European Commission have considered the failure to coordinate a common standard for the spectrum 3G auction one of the twin tragedies of member-state regulation of telecoms. The other is the failure to develop alternative local loop broadband services, by divesting the telco of its cable TV division sufficiently in advance of the 1998 liberalization to permit upgrading of services from analogue to digital. A partial answer has been to 'unbundle the local loop' by co-locating rival operators' switching equipment in local telephone exchanges, permitting them to use the higher bandwidth element in the copper wire lines for Digital Subscriber Line (DSL) services. Where the combination of competitive infrastructure being least advanced and regulators most advanced, LLU has been a partial success: the Dutch and Germans, together with the Swedes, are seen as most competitive in this regard. The battle seemed somewhat personified in the rigorous persecution of their tasks by Kurth against DT and Arnbak against KPN. The contrast with the more vacillating (and less effective, despite or in part because of UK attachment to alternative cable infrastructure competition) approach in the UK was very obvious. Despite the even greater indebtedness of the cable companies now challenging telcos (NTL and Telewest from the UK as their main market, and UPC from Netherlands,

with Callahan Associates in Germany), the patchy success of LLU and some alternative infrastructure was evident. Competition is seen to be emerging in broadband via these two routes.

The regulator is obviously seizing the non-productive assets of the telco – all of whom were wedded to 128Kb/s Integrated Service Digital Networks (ISDN) previously – and permitting competition for that part of the copper spectrum unused by the telco until now, rationally fearing that it would cannibalize its ISDN revenues. In the UK, British Telecom's Ignite subsidiary has been the major beneficiary in the absence of LLU. In Germany, competitors such as QSC, and in France Noos, have emerged. This 'managed competition' to the incumbent is a mess, frankly, and creates huge distortions of values.

Whereas previously, mobile was held to be the most potentially profitable market followed by local loop, the effect of auctioning the former and heavily regulating broadband in the latter has partially contributed to the decision by DT, AT&T, Telefonica, France Telecom, BT and other telcos to divest both their local loop and mobile divisions. It is to be hoped that this divergence of businesses will contribute to regulators and capital markets being better able to assess the new post-2000 meltdown value of both local loop forcibly divested from the incumbent, and mobile subject to wild government valuation fluctuations. Certainly, the torrid experience of the year appears to have made a nonsense of notions of fixed returns in investment in the sector, which now appears almost as wildly fluctuating as dot-com 'bombs'. For regulators, the challenge is to ensure that basic network integrity survives, that 3G networks are built on time, and that rival DSL operators do not leave the market in droves, as has already happened in the UK, driven out by regulatory uncertainty in assigning a new property rights settlement.

C. Single Converged Regulator?

In the UK, the reaction to digital convergence (formerly assumed to be between media and telecoms, now more generally assumed to be between Internet and mobile telephony) was set in stone in 1996 Labour Party pronouncements in opposition to the then-Conservative government. The decision to back a US-style converged regulator, Ofcom, to replace media and telecoms regulators was delayed during the early years of Labour government and may not be made until 2003. Nevertheless, the Communications White Paper of December 2000 commits the government to enact a Communications Bill after the next election, expected later this spring. The property rights – and investment – shambles in the UK especially proves the poverty of regulatory zeal, with spectacularly high mobile auction prices, intransigent BT (and cable) management and Oftel regulation of LLU, all of which have delayed broadband roll-out. From leading Europe, and arguably the world, in competitive telecoms throughout the 1985-95 period, the UK has fallen to mid-ranking European also-ran.

Luigi Prosperetti especially made the case for avoiding a super-regulator such as Ofcom, based on unsatisfactory Italian experience. Bob Crandall pointed out how huge the FCC in the US has grown. For the European Commission, Nicholas Agryis indicated that the separation of telecoms from media regulation at European level – where media is regulated by nation-states and telecoms co-ordinated by DGInfoSoc – was unnecessary and pleaded for better specialist telecoms regulation and proper co-ordination (no need to mention the cable, LLU, and spec-

trum auction fiascoes). Almost no one had a good word to say for super-regulators. Their impact on the crucial property questions in broadband, mobile and local loop delivery and intellectual property rights, appeared to have been secondary to the more personal and organizational questions of how the regulatory honours would be allocated.

D. Intellectual Property: Streaming Media Europe and TV Broadcasting Online Conferences

Intellectual property has, if anything, an even less certain set of property rights than the 'real' property of spectrum in local loop and mobile telephony. With DSL lines, it is possible to 'stream' audio and video files in near-real time over broadband connections, and it is increasingly possible to offer real video-on-demand, first for personal computers, then for TV and mobiles, using MPEG4 and other advanced video 'codec' (compress-decompress) technologies. This revolutionary development – which led to much of the mid-1990s excitement about broadband networks which led to the 'Ofcom' UK proposal – depends on releasing the intellectual property rights in video and audio properties for distribution over new media. There are two problems: the owners don't want to do it, and the rights don't exist.

The owners don't want to do it for reasons of bounded rationality. First, they are making supranormal returns already on their broadcast businesses – as most video rights holders are broadcasters granted monopoly, or at least severely rationed, licences. The long-term prospect of increasing revenues via VOD over broadband connections is outweighed by the short- and medium-term prospects of sustaining advertising and pay-per-view revenues in the rationed broadcast space. The prospect of more perfect competition in broadband is therefore not at all appetizing. As Martin Tobias, CEO of Loudeye, demonstrated at Streaming Media Europe, in his keynote speech, it is 'Capitalism 101' that you must offer IPRs both protection and monetization sufficient to attract management time: the Internet offers neither. There were lots of suggestions to make the Internet [a] faster – by localized caching in Content Delivery Networks (CDN) supplied by Akamai Networks for instance; [b] safer from IPR piracy – by digital rights management (DRM); [c] potentially more profitable – by content syndicators such as ScreamingMedia who take audio, text and video from hundreds of suppliers and supply to thousands of websites.

IPR owners, however, see a much better future in using proprietary networks to distribute their video product (audio is different in that most radio stations are effectively syndicator-aggregators of music files, where the technology already permits theft on a grand scale, via peer-to-peer networks such as Gnutella). Daniel Sandelson of Clifford Chance demonstrated at the 'TV Broadcasting Online' seminar that there is no satisfactory allocation of IPRs for Internet distribution of video, where the TV rights already allocated are national in scope but Internet distribution requires global rights. The answer increasingly employed is to use the guaranteed service quality and enhanced security of the 'walled garden' broadband service providers' network, to avoid the public Internet altogether. These 'walled gardens' have a very satisfactory legal status: they are cable networks. The private network ensures integrity of rights, video delivery, and allocation of property. Unfortunately, in most European countries – except Sweden

which has 10Mb/s to the kerb – streaming video to a full-screen TV in VHS quality is not possible in the ‘mid-band’ bitrates available, 512-1768Kb/s, in consumer offers. Only truly private networks leasing high bandwidth at 2.3Mb/s, such as the UK VideoNetworks, can so far offer this walled garden service. It appears that migration to broadband Video-on-Demand requires a leap of faith by both telcos and broadcasters. The legal framework will ensure that this broadband VOD, when it arrives, will be more the AOL-style ‘walled garden’ than true open access: private cable not public Internet.

E. Services: Ispconeurope.com Conference

For ISPs – which in the broadband space are increasingly becoming Broadband Service Providers (BSPs) – the issue arising in connection with government intervention is less about jurisdictional avoidance than global localization. ‘Information wants to be free’ it was said in the early days of cyberspace. In the increasingly ubiquitous environment of the Internet in which commercial ISPs find themselves, information wants to be controlled by its owners and recipients. Therefore, in this conference, this reviewer concentrated on the privacy roundtable, itself prompted by the US-European debate surrounding privacy, pornography and free speech. The date of the conference followed close on the decision by the French high court to require Yahoo! France to take all reasonable measures to prevent French Internet users accessing material that was illegal in France (and Germany) but legal in the United States: neo-Nazi memorabilia that was held in these European jurisdictions to incite racial hatred. Though not all users could be blocked, the judge was convinced that blocking access to the vast majority of non-expert hackers would perform a satisfactory public interest function that over-ruled Yahoo! arguments that the financial cost outweighed the advantages of blocking disinterested users, given that fanatics would find ways around the filtering technologies employed.

The privacy panel at the conference considered the US-European logjam in privacy regulation, where the First Amendment to the US Constitution clashes with Article 8 of the European Convention on Human Rights. Representatives from US and European business agreed that privacy worries had become a significant factor in slowing the growth of e-commerce from early adopters to the broader population, and that these worries occurred at first registration for sites, with increasing concern raised by naming information, credit card billing, and fulfillment of orders. (Note that for instance lastminute.com, the online travel agent, offers the option fulfilling orders by telephone to avoid the privacy implications of billing online). For the OECD, the worry is more that without agreement by governments on privacy protection, the entire global e-commerce infrastructure would fragment. This classic collective action problem, where neither side wishes to concede despite the obvious collective benefits of so doing, leads one back to the ‘walled garden’ approach, exploited by DoCoMo in Japan, where e-commerce billing is carried out by the BSP, which collects a commission for each sale it bills to the customer.

F. Conclusion

Four conferences, one over-riding theme. The lack of legal certainty in assigning property rights, whether to one's personal information or spectrum in LLU and 3G mobiles, is restricting the growth of a broadband Internet, and leading to a localized, Balkanized 'walled garden' private network approach: back to the future. In such a fragmented future, should it continue, the issue of open access to those private networks will become critical. The global information infrastructure is becoming increasingly regional, national and local, a process which streaming video will accelerate due to the huge (probably insuperable) technical and legal challenges which it represents to any global, narrowband solution. Without a more legally certain international allocation of property rights, the old national legal restrictions will continue to apply to profitable mainstream operators, with the public Internet a source of piracy, romance and buccaneering on the high seas beyond the reach of national legal certainties.