

# European Regulation of Digital Television

## *The Opportunity Lost and Found?*

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This chapter critically analyses failures in European Union media policy within the field of digital television [DTV] standardisation. The case describes a situation in which market optimism combined with inconsistent 'light touch' regulation has over-ridden public interest principles. The lack of coherent European regulation has negatively impacted the emergence of digital television in relation to market prospects, caused difficulties in the strategies and timetables necessary for broadcasters, and increased consumer mistrust.

As a result, European digital television markets are now technologically fragmented and dominated by major satellite broadcasters, whose proprietary decoder standards prevent viewers from accessing a full range of digital services with one set-top box device. This means access problems and unwarranted expenses not only for digital television consumers but also for content producers, especially non-commercial public interest producers of interactive services. Thus, the public service corporations are also in difficulties to find their 'interactive remit' in the DTV platform. The chapter concludes with discussion about lessons to be learned from such failure and the crucial role of proper media regulation in general.

### Marketization of the audiovisual policy – the historical background

Contradictions and conflicting goals have characterised European Union audiovisual policy for far too long. Following Richard Collins (1994), it has become common to see these conflicts as an ongoing battle between contrary regulatory approaches: a *deregulatory* vision and a *dirigiste* vision. The first references market liberalisation while the second refers to regulation by directives keyed to cultural policy operations.

As a dichotomy, the sketch is obviously simplistic. In fact, and as Graham Murdock has convincingly argued, deregulation may itself be a misleading

term in the context. Murdock suggests that ‘*marketization*’ is a more appropriate term because there have been several policy shifts involved: privatisation, liberalisation, the reorientation of regulation, corporatisation and commodification (Murdock, 2000: 39-43). Others have emphasised that the move from monopolies to competition in European television markets prompted regulatory reform and re-regulation rather than wholesale deregulation (Venturelli, 2002: 74; Levy, 1999: 22). One can also note that there has been a clear shift from *cultural regulation to competition re-regulation* with a market orientation in which “state aid” to public service broadcasting is tolerated only as an exception to the rules (cf. Harrison and Woods 2001).

The duality of regulation and marketization is apparent in the *Television Without Frontiers Directive* (TVWF 1989/1997), i.e., the cornerstone document of EU television policy. Its main purpose was to actively deregulate by forbidding Member States to prevent reception of a TV-channel licensed elsewhere in the EU. But in the same breath, it reflected ‘dirigism’, if minimally, because advertising time and the placement of ad slots were regulated, there was emphasis on the protection of children and prohibition of racial or religious hatred, and European content quotas were included. Those quotas oblige broadcasters to reserve a majority proportion of their transmission time for programmes of European origin. The effectiveness of this requirement was halted by provisions specifying that the Member States only need apply quotas “where practicable and by appropriate means” (ibid. article 4). As a result, the practice has only had symbolic impact on satellite and cable broadcasters, while national implementation of content quotas has also been quite irregular (Levy, 1999: 41-44 & 161-164).

The official goal of EU audiovisual policy has been to build a single, commercially competitive European audiovisual market. This is considered important to better compete against the American import of programmes. Regrettably, the objective has never been realised in practice. The TVWF directive has instead mostly supported UK-registered but US-controlled channels and facilitated the hands-free circulation of American programs (ibid., 44, 161). While this neo-liberal television policy has been active, the European Union audiovisual trade deficit with the USA has actually grown larger (Tongue, 1999: 106-9; Hancock, 1998: 137-8). New competition and market growth has taken place in national rather than European markets.<sup>1</sup> Thus, in pan-European television markets American English remains, and continues to grow, as the *lingua franca*.

## Digital television in the context of Information Society and convergence

The European Union had only a secondary role in the liberalisation of the audiovisual sector<sup>2</sup>. In telecommunication markets, on the other hand, the EU has been the most active and successful promoter of marketization, as stated

in the Commission's own report (COM, 2000:814). In the late 1990's, discussion on the audiovisual sector has often been subordinated to discussions on telecom, the so-called Information Society [IS], and digital convergence.

After at least two decade's active discussion on IS and knowledge-based technology as a factor of economic growth, the 1990's finally saw the rise of public IS-strategies. In 1993 an extensive National Information Infrastructure Program (NII 1993) was launched in the USA, and a similar strategy was published in Japan. The European Commission White Paper, *Growth, Competitiveness and Employment* (COM, 93:700), followed soon after.

The general IS strategies of the EU were interwoven with the idea of media convergence – the technological and economic integration of telecommunications with broadcasting networks. Especially evident in the Bangemann Report (1994), convergence was construed as a process for opening new market opportunities in a manner that necessitates accelerating the process of media liberalisation.<sup>3</sup> This position was further developed in the report titled *Public Policy Issues Arising from Telecommunications and Audiovisual Convergence*, which the Commission ordered from the consultant company, KPMG, in 1996. Similar ideas filtered into the EU Green Paper on convergence (COM, 97:623) which elaborated the idea of a more 'technology-neutral' approach to competition regulation as better than sector-specific content regulation. The viewpoint of the Commission hinged on the belief that avoiding market distortions in the developing new media markets makes it mandatory for the EU to minimise its regulatory interventions (Levy, 1999: 129-130).

In line with the Bangemann report (1994: 12-13), the first EU policy documents considering digital television stressed the single market mantra. The emphasis stressed *common pan-European standards* as the essential precondition for harmonious pan-European market evolution (Council Resolution 1994). In spite of all this 'common markets and common standards' rhetoric, actual EU regulation has taken a very different course. (For a critical analysis on the European IS and media policy rhetoric see Goodwin & Spittle 2002 or Kaitatzi-Whitlock 2000; for a more positive view see Ward 2001).

### Digital television and missing single markets standardisation

Although single market standards have been the official goal of EU audiovisual policy, the first piece of regulation tailored to digital broadcasting did little to address that. The Advanced Television Standards Directive (ATSD 1995) was drafted in a way that could not facilitate the emergence of a single European digital TV market supported by common standards. The directive stipulated that the member states should promote the accelerated development of DTV (*ibid.* article 1), but gave no clear guidance on standards. The directive instead gave the DTV operators liberty to create propri-

etary Conditional Access Systems [CAS] and combine them with an Application Programming Interface [API] and was only requiring that they licence their technology to other operators “on fair, reasonable and non-discriminatory terms” (ATSD 1995, article 3c).

It was soon glaringly apparent that the lack of common standards in these ‘middleware solutions’ created a technology bottleneck. Different API and CA systems, which must be installed in the set-top box [STB] receiver, makes it impossible for digital television viewers to access all the digital channels available on the market with one receiver. In practise, this has been a rather efficient obstacle to developing a pan-European digital television market and created potential competition problems too (Nolan, 1997; Llorens-Maluquer, 1998; Galperin, 2002).

The immediate reason for this non-regulative policy was that standardisation issues for digital television were consigned to the Digital Video Broadcasting Project, an industry-led European consortium of over 300 broadcasters, manufacturers and operators (see [www.dvb.org](http://www.dvb.org)). Although the project group had succeeded splendidly in creating common European transmission standards for satellite, cable and terrestrial broadcasting by the end of 1993, the standardisation of API and CA systems proved far more difficult. In these areas the project group couldn’t surmount pre-existing conflicted interests among broadcasters. It was, notably, in the interest of pay-TV satellite broadcasters to extend control over their existing customers in the transition from analogue to digital markets, not to open the market to new competitors via open standards solutions (Galperin, 2002; Levy, 1997: 667-671).

Although the prospects for voluntary industry consensus on API and CA systems faded, the Commission refused to intervene. The absence of middleware software standards therefore meant that although broadcasters could *transmit* their digital signals across Europe, audience *access* to those signals would be strictly limited to households equipped with the ‘right’ set-top box. As a practical result, European DTV markets have fragmented into rival blocks operating incompatible STBs *even within* the same national or linguistic market.

This industry-led standardisation policy has roots in previous failures in EU-led television standardisation. The efforts to build a common European standard for analogue High Density Television [HDTV] through the so-called MAC Directives and subsidies for wide screen production between 1986 and 1993 failed in spectacular fashion. Satellite broadcasters refused to adopt that standard at the dawn of digital technology, and the EU was unable to maintain its policy when faced with such obstinate commercial opposition. By 1992, the failure was acknowledged and the guiding principle of EU technology policy has since been to go with the grain of the market rather than to try to steer it (Levy, 1999: 68-79; McPherson, 2002: 83-84). We may ask if non-regulation is a good alternative for wrong regulation.

European digital broadcasting started in 1996 with DStv in Italy, Canal Satellite Numérique (CSN) in France, and Kirch Group’s DF1 in Germany –

each of which launched using independent middleware standards. The German case is particularly interesting. DF1 quickly found itself locked in competition with the digital channel offered by the Bertelsmann group, again using a different decoder model. Both firms failed to gain sufficient audience interest to realise commercial success. Only in light of this could Kirch and Bertelsmann agree to work together to launch a jointly owned pay-TV platform (Premiere), using the Kirch d-box technology. The European Commission, due to concerns about creating a digital “Bertelkirch” monopoly position, ruled against this otherwise rational move (Schoen, 1998; Dransfeld and Jacobs, 2000).

In Spain a different species of hardware war erupted when the Spanish government tried to force Canal Satéllite Digital (owned by Canal+ and publishing house Prisa, associated with the Socialist party) to use the CA technology of the partly state-owned Vía Digital in a special law. This politically motivated action was prohibited by the Commission which saw it as a violation of Treaty rules (Llorens-Maluquer, 1998). Such hardware and middleware wars largely account for the lousy start and poor public reputation of European digital television.

In the UK and France the situation has been somewhat different, with several competing companies. But there, as well, the operators have been using incompatible decoders and digital terrestrial television is either in great difficulty or in its infancy. Meanwhile, the German Kirch group fled the arena in bankruptcy. For their part, the competing Spanish digital satellite platforms announced plans to merge in May 2002 after the collapse of the digital terrestrial operator, Quiero (Fernández, 2002).

### A failure of policy and policy-makers

The cumulative evidence clearly indicates that public regulation and industry-led regulation have both chalked up many more failures than successes. Such weak European standard regulation for DTV technology suggests a lost opportunity. There was, in fact, ample opportunity for the EU to regulate needed DTV standards to facilitate the creation of a pan-European television market with increased consumer choices in services. They failed in this because European policy makers were too entangled in the illusory principles of minimalist regulation and glorified marketization, even while at the same time trying to ban monopolies via strict competition regulation. Moreover, policy makers in the member states, seemingly captivated by ‘early bird’ enthusiasms, were reluctant to slow the pace of digitalisation with domestic regulation and standardisation issues, and further too keen to protect the interests of broadcasting corporations operating within national territories.

The price tag for such widespread policy failures continues to mount. Not only has the opportunity been squandered to develop pan-European TV-

markets, but the situation has also made the production of interactive applications for DTV platform prohibitively expensive and risky because each must be tailored separately to fit different proprietary STB platforms. This will retard the development in interactive television applications for non-commercial public interest (and service) purposes and their option to easily travel across Europe.

Multiple standards are not only difficult for terrestrial free-to-air broadcasters who started digitalisation after the satellite companies, and thus enjoy none of the material benefits in controlling the proprietary set-top boxes as is the case for pay-TV companies. At the same time one finds that pay-TV operators have also paid for these mistakes and overheated market expectations, as the collapse of ITV Digital, Quiero and Kirch in Spring 2002 pointedly illustrate.

### MHP – a new opportunity?

After noted difficulties and interminable delays, the DVB project group finally succeeded in creating an open API standard for digital television. This Multimedia Home Platform [MHP] standard, which uses open Java language code, was officially recognised by the European Telecommunications Standards Institute ([www.etsi.org](http://www.etsi.org)) in July 2000. As an open standards software platform, MHP could provide a common basis for pay-TV programmes, free-to-air programs, Electronic Programme Guides [EPG], Internet browsing and interactive services (see [www.mhp.org](http://www.mhp.org)). With MHP standard in the set-top boxes, interactive applications could be authored once and used in different hardware platforms. All in all, MHP could save costs in the production of ITV applications and enhance interoperability in the consumer platforms.

MHP has been especially embraced by German and Nordic TV operators and free-to-air terrestrial broadcasters. But the dynamics and problems already discussed at length persist. MHP does not interest the most important digital satellite broadcasters because, by now, they have gained substantial market shares with their proprietary middleware technology. This, in turn, means that hardware manufacturers aren't keen on MHP which also requires more processor efficiency and Flash/RAM memory from the STB hardware than was hitherto needed (Flynn, 2001). STB manufacturers have not been hurrying to start mass production of the MHP standard boxes, which again leaves terrestrial broadcasters in favour of MHP in the lurch.

Finland 'boldly' announced in 2001 that it would be the first European country to start digital broadcasting using the MHP standard. In practice this has gone badly because at the time digital broadcasting started (27 August 2001) there still weren't any MHP boxes on the consumer market. So the initiative has understandably been lampooned in the press, and this has seriously diminished the credibility of DTV in the eyes of the viewers.

The broadcasters can't rationally justify developing new MHP services which cannot be used in most of the 31,000 first-generation boxes sold by now (Oct 2002). Few rational consumers are willing to invest in a technology that may be outdated when the MHP boxes finally enter the market. To date, there is only one expensive integrated MHP television model on the Finnish market. Of the all together 13 channels licensed to start digital broadcasting, four have refused to start (all pay-TV channels), two (SubTV and the Sports channel) gain most of their audience in analogue cable, and the remaining channels, five of which are public service, mostly simulcast or recycle their analogue content in the digital platform. No wonder the consumer interest has remained modest.

The European Commission has been rhetorically supporting the MHP standard for two years, but it's only symbolic support. The communication from the Commission on *the principles and guidelines for the community's audiovisual policy in the digital age* promised that the Commission will closely monitor API standards development, but did not propose any specific action. Paradoxically, the rationale is that it would be unwise to do so "at this early stage when market and technological developments are highly unpredictable" (COM, 1999: 657, 15). This begs the question: Given the evidence, who is primarily responsible for this very unpredictability?

Meanwhile, demands for concrete action on the matter continue to grow. In early 2001 an independent report for the Commission suggested further support for MHP (OVUM, 2001: 6 & 26-28). In mid-December 2001 the European Parliament voted to accept a compromise deal on the EU Telecom Package meant to harmonise the regulatory environment for electronic communications. New directives include possibilities to implement compulsory standards when "strictly necessary" to ensure interoperability and to improve freedom of choice for users (COM, 2000: 393, 12 & 25).

In debating the telecom Package the German Members of Parliament especially wanted to include a clear mandate for the MHP standard in future STBs as part of the package, but UK representatives were against this, nor was such a mandate supported by the Commission. In the end, the Commission only agreed to communicate to Parliament, "*as soon as possible*", the concrete steps the Commission will take to ensure the rapid adoption of an interoperable and open system for digital TV services in the European Union (Paasilinna, 2001a, 2001b). Why do open API standards matter? Isn't it only about DTV technology and not the DTV contents?

As Milton Mueller notes (1999: 14) a process of settling upon common protocols and technical standards for data interchanges is a predominantly socio-economic process, not a technical one. In new media, technological software standards create an important part of infrastructure that affects both consumer access to the media services and producer access to the content authoring tools. To a certain extent, discussion on the open STB-API standard can also be compared to the open source discussion related to Linux software in PC's and Internet servers. As Tuomi (2001) argues, the open source

code does not necessarily guarantee a better software technology, but it may include other kinds of benefits like active communities of learning and innovation in developing the software applications, or reasonable prizing for end users. (See also DiBona et al. 1999.)

Without common standards for interactive applications the interactive potential of European DTV is greatly diminished for shopping channels, interactive advertising and pay television niche programming – just as critical views predicted (Kleinsteuber, 1998; Østergaard, 1998: 105). With incompatible standards for interaction the very best one can hope for is more television, not better or ‘enhanced’ television.

Within the next couple of years we will know if there is enough policy support for MHP from regulators and broadcasters. For the moment, however, one is left wondering (and perhaps worrying) if it is already too late to seize this second chance. It may well be that the legacy of already installed incompatible set-top boxes (over 30 million units) will make full decoder interoperability a long, difficult and potentially impossible process for European DTV operators and consumers.<sup>4</sup>

## The remit of media regulation

Interoperability issues in digital decoders and interactive services are not the only important question for the future regulation of DTV in Europe. After all, it may well be that because of the ‘cultural inertia’ and the lack of competence in both production and reception, interactive television services will not be of great social interest or importance anytime in the near future. There are also many other future regulatory questions of related importance to be simultaneously faced in deliberations about the forthcoming revision of the TVWF directive (1989/1997). This was actually supposed to happen in late 2002, but will probably be postponed (see Reding 2002). Future regulatory challenges also include new forms of interactive and virtual advertising, as well as Customer Relations Management systems implemented in the set-top box. One would also include ‘listed events’ policy, European content quotas, analogue broadcasting switch-off strategies, spectrum allocations, national public service remit definitions and the role of the EU in the WTO negotiations, where the further liberalisation of the audiovisual services is still on the agenda.

Thus, when considering the future development of DTV it is quite insufficient to merely count the slowly increasing figures of ‘digital penetration’. The primary question to be addressed is what kind of digital broadcasting is needed to best benefit European publics? The role of DTV should be considered in the context of Information Society development as well, focusing on the importance of open access to free-to-air public services that are platforms for democratic debate. It is surprising that the relationship of DTV to

the Internet or the public IS services are only (and then only briefly) referenced in some of the EU documents. This is never analysed in detail. Public service programming and services should be guaranteed in the various platforms before and after digitalisation with, for example, well defined *must carry* rules.

It is also quite clear already that future challenges are so sweeping that the 'light touch' regulatory approach will not be adequate. There is immediate and pressing need for political motivation in sector-specific and time-specific media regulation, and not only cross-sectoral market regulation. The depressing chronicle of European failures in digital television middleware standards proves that sector specific regulation *is still* urgently needed. There are issues involved that are too complicated and technical to be resolved on an exclusively cross-sectoral basis. A clear division of regulatory responsibilities at the national, European and even more international level is also needed.

European politicians – and the EU Commission in particular – should have already learned from hard won experience that regulation is not inherently harmful to business, industrial claims notwithstanding. On the contrary, there is a strong case for accepting the proposition that regulation is desperately needed by commercial market actors too, especially those that can't monopolise the market. Stuart Prebble, the former chief executive of ITV Networks, made the point in his article in the *Sunday Telegraph* only days after the collapse of ITV Digital. Without avoiding due self-criticism, he also blamed the missing and arthritic regulatory actions in the UK for failing to prevent the BSkyB enterprise from eliminating its competition (Prebble, 2002). As often noted but frequently ignored, wise public regulation and state intervention are enabling factors in economic process too.

There is recent evidence of slight policy shifts away from marketization principles in the European Union. But at least for Viviane Reding, Commissioner for Education and Culture, adherence to neo-liberal ideology is amazingly firm. She indicates unwavering faith in self-regulation for the protection of consumers and questions *any* need for European content quotas in TVWF directive "in a digital world where electronic content is *limitlessly* available". If it really were limitless, one might more easily digest the proposition. Sadly, however, this treatment indicates significant limitations. She remains obstinate to avoid over-regulation that, she fears, *might* hinder the development of the market and harm Europe's competitiveness. (Reding, 2001, 2002). But as the case of DTV standards demonstrates, non-regulation has factually already impeded this very same development on the market.

Cross-sectoral competition regulation is an important tool for market regulation. That is understood and accepted. But a very strong case can be made for the proposition that it isn't nearly enough. The revered case law tradition has to date demonstrated that it is too slow a mechanism to efficiently handle the rapid and sweeping changes involved with digitalisation. To resolve the problems highlighted in this chapter surely demands that one first

admit the problems in and limitations of neo-liberal market-led de-regulation in order to find appropriate regulatory solutions to benefit publics, industries and governments alike.

## Notes

1. The European Commission has estimated that in 1999 the share of US import on the audiovisual markets of the member states was between 60 and 90 percent with a total value of 7000 million Euros, while the share of European import on the US markets was only 1-2 percent (COM(1999)657, p. 7).
2. The marketization of the audiovisual media developed in the early 1980's through national decisions, which ended the era of public service monopoly in broadcasting. The European Union has at any rate heavily supported and further developed this trend. Neo-liberal marketization has clearly been in the foreground in the European media and telecom policy since the mid 1990s.
3. Interestingly Bangeman report paid only little and somewhat critical attention to the Internet, which a few years later was considered to be a new medium which "best embodies the digital revolution" (COM(1999) 657, p. 5).
4. Globally there will of course be different standards even in the transmission of DTV signals. American terrestrial DTV is using 8-VSB signal modulation, including an option for digital high definition television [HDTV] but using the bandwidth less efficiently than the European DVB-standard based on COFDM modulation. The Japanese have a system of their own called IDSB. But the DVB-standard is becoming the most used in global terms.

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