

Chapter 29

Convergent Communications, Fragmented Regulation and Consumer Needs

Jeremy Mitchell

1.0 Messy Convergence

The convergence of broadcasting, telecom and computing has been heralded for so long that it comes as something of a surprise that it is now actually taking place. However, technological and commercial innovations are happening so quickly in the 1990s that the regulatory structures which have been developed in previous decades look increasingly anachronistic. What are the regulatory issues that need to be confronted? What changes to the scope and structure of regulation need to be made? In particular, how can regulation best serve the needs not just of industry players but also of individual consumers?

Convergence is a wide-ranging concept which includes a variety of different (and sometimes conflicting) trends. Looking ahead over the short to medium term – say, plus or minus five years – there are strong indications that the most probable scenario is ‘messy convergence’. That is, it seems unlikely that there will be a neat coming together of broadcasting, telecom and computing, with a single channel of distribution through which the individual consumer will receive a wide variety of existing and new services, accessed via a single screen-cum-black-box in the living room. Far more probable is a scenario in which different distribution channels, hardware and software will be in a state of competitive coexistence, with recurring competitive and regulatory battles about the technical and commercial aspects of interchange and mutual access. The Internet, online services, off-line services such as CD-ROM, interactive television and video, satellite television, digital television and radio, voice processing, interactive teletext... all these will become available to consumers, but without displacing terrestrial television, old and new cable systems, and voice telephony.

The industrial scene may well be equally complex. Already, major players are spreading across different technologies and services as well as internationally. For example, AT&T are expanding from their base in telecom into online services, interactive cable and credit cards. They are launching in Europe, not only in telecom but in online services via Europe On-line, in conjunction with three European publishing houses based in different countries.

2.0 Regulatory Principles and Practices

What should be the principles of regulation in such a complex and rapidly changing situation? Clearly, regulation must aim to ensure a competitive level playing field for industry players without strangling economic and technological innovation. Most of the

political debate about regulation tends to focus on these competition issues. However, it is suggested that an equally important aim is to ensure both access for individual consumers and effective consumer protection. Constructing a new, overarching regulatory framework with these aims is no easy task, not least because there are major differences in the “culture of regulation” of the three converging technologies.

While broadcasting regulation has its roots in the allocation of spectrum scarcity, its scope goes much wider. In many countries, though not in the US, there are strong public service obligations of political neutrality, programme quality and programme diversity – invariably on publicly owned broadcasters, sometimes also on their commercial competitors. In Europe, these have recently been given formal expression in the Resolution adopted at the Council of Europe Ministerial Conference on Mass Media Policy in December 1994. This embodied a consensual approach to the concept of public service broadcasting as it has developed in Western Europe.

Telecom regulation, with the US again an exception, currently focuses on managing the transition from a publicly owned monopoly to a more competitive environment in which there is a single, dominant, privately owned network operator, with various other players trying to establish themselves, sometimes across the board, sometimes in niche markets. Unlike broadcasting, content regulation is not normally a factor, except for statutory provisions on obscenity. However, there is a whole raft of consumer issues, including choice, price and universal service.

Computing regulation does not at present exist in any coherent, institutionalised form. The fiercely libertarian computing culture within which the Internet was born and developed is now encountering major problems in the transition to a mass medium with the debates, initially in the US but now also in Europe, about regulation of obscene material. January 1996 was a critical month in two respects. First, CompuServe blocked access by its four million subscribers in North America and Europe to 200 sex-oriented Web sites in response to pressure from Bavarian Länd prosecutors investigating child pornography. Second, in the UK an Internet user was convicted for downloading child pornography – the outcome of a joint team of US and European enforcement authorities monitoring file transfer protocols.

The issues are stimulating ‘turf wars’ between regulators. In the US, there is a dispute as to whether the Internet is a print-type medium, and therefore free from content regulation, or a broadcasting-type medium, subject to the FCC. In the UK, there is conflict between telecom and broadcasting regulators on the regulation of broadband switched technology services. The view of the telecom regulator, OFTEL, is that it, not the Independent Television Commission, should regulate conditional access and subscriber management services.

With a small minority of exceptions, existing regulatory systems for broadcasting and telecom provide little in the way of organised input which identifies the needs or represents the interests of individual consumers (for broadcasting, see Mitchell and Blumler 1994). One reason for this is that the vested interests of commercial players tend to be sharply focused and easily quantified, while by contrast the consumer interest is diffused and difficult to quantify. There is, however, a shortage of consumer issues. The list includes universal service, content regulation and security, examined in more detail below.

3.0 Universal Service

The principle of universal service has, with very different emphases, been an important strand in the provision of both broadcasting and telecom services. It has both geographical and socio-economic aspects, as the situation in the UK demonstrates.

3.1 *Broadcasting*

Geographically, broadcast television currently has a high degree of accessibility within the UK. Well over 90 percent of households live in areas where it is possible to receive all four broadcast television channels. The minority live in the more remote rural areas where the nature of the terrain makes reception difficult or impossible.

Geographical access via cable is more restricted. Whether any particular area is cabled depends on a variety of commercial factors, including population density, the detailed geography of the area and the socio-economic characteristics of the population. Access via satellite television may be subject to different constraints – for example, the construction and orientation of the flat or house in which a household lives.

The principle of geographical universal access to television broadcasting is going to be diluted considerably in future. The planned Channel 5 will only reach about 65 percent of the population. Of the six new digital frequency channels providing multiplex services, only two will be available to over 90 percent of households. Two more will reach over 80 percent and the remaining two between 60 percent and 70 percent. Just who will be able to get which television channels is not yet clear, but it seems highly likely that, while virtually everybody will be able to access more television channels, an appreciably smaller proportion than at present will be able to receive all of them.

In socio-economic terms, the price of access to all terrestrial broadcast television is the annual licence fee, which goes to the BBC. After this payment, which is a kind of family poll tax, access to broadcast television on all channels is currently free at the point of use.

Access to the additional channels available on cable or satellite is obtained by making additional payments which are structured in different ways but currently involve a regular subscription. One of the key consumer issues is the extent to which the enhanced choice of channels provided by cable and satellite, against payments over and above the licence fee, involves a dilution of the principle of universal service. For example, there is controversy over the screening of major sporting events. Sky, has been successful in outbidding terrestrial broadcasters for many events.

So far as television is concerned, the once-for-all price threshold of the annual licence fee has now become a preliminary threshold, with further access controlled by various pricing structures offered to different groups in the population. A shift of programmes from the terrestrial channels to subscription or pay-per-view systems has started and is likely to be given momentum by the introduction of digital television. Also, digital television is going to involve consumers in substantial extra payments in buying either a decoder or one of the new generation of television sets capable of receiving digital transmissions.

From all these developments, it seems clear that in the future, access to television will be governed by price to a much greater extent than it is now. If broadcasting is looked on as neither more nor less than a purely commercial service, this might not matter. However, if it seen as playing important political and cultural roles in a

democratic society, there may be cause for concern if those who have least money are being priced out of participation.

3.2 *Telecom*

Historically, the interpretation of universal service for voice telephony has been rather different from the concept in its broadcasting context – though, one aspect in common has been that universal service has not been equated with completely free access. The UK Director General of Telecommunications has defined it as “...affordable access to basic voice telephony (or its equivalent) for all those reasonably requesting it, regardless of where they live” (OFTEL 1995b). In practice, access is controlled by a network connection charge, plus line rental and usage charges.

There is a similar principle in most European Union (EU) countries. The connection charge is standard within each country and not normally related to geographical or other factors which might affect the cost of connection. However, there are wide and unexplained differences between countries. For example, installation charges are roughly seven times higher in Denmark than in Germany. There are also wide differences in charging structures and tariff levels.

How successful has the universal telephone service obligation been in enabling widespread access? Claire Milne (1995) has pointed out that, while in the UK the proportion of households without a telephone is now down to under 10 percent, there are groups in which this figure is significantly higher. Geographically, the proportion is higher in the extremities of the UK: one household in five in Northern Ireland and the north of England, one in six in Scotland and Wales. Of households in council and privately rented housing 28 percent do not have telephones, compared with four percent in owner occupied houses. Goddard and Cornford (1994) cite a housing estate in Newcastle where 74 percent of households do not have a telephone.

Not surprisingly, there is a correlation between having a telephone and income. Of households with an income of less than £100 per week, some 30 percent do not have a phone. Poverty is clearly a critical factor. A sample survey of those without a telephone showed that 80 percent of those without a phone did not intend to have one installed, overwhelmingly because they could not afford it (OFTEL 1994a). Other recent research shows that concerns over phone bills and the initial costs are given as the two main reasons for not owning a phone (PSI 1996). Acknowledgement of these financial barriers has led OFTEL to issue a consultative document on universal service which deals, among other matters, with issues of affordability, and which examines various strategies that might improve telephone penetration among low income consumers (OFTEL 1995c).

3.3 *New Information and Communications Technologies*

The concept of universal service is taking on fresh importance because access to the telecom network is the route by which individual consumers gain entry to the new information and communications technologies as well as to voice telephony. The new technologies have the potential to be very socially divisive, unless they are available to all. At worst, we might be on the verge of an era of deep divisions in society, both between countries and within countries, between those who do and those who do not have access to – and the capability of using – the new technologies. The problem is exacerbated because the divisions fall across existing fault lines in society. Those with

the least income and lowest educational attainments may be those most likely to be barred access to the benefits of the new technologies.

How should universal service be extended and reinterpreted to include the new technologies? As argued above, price is already a barrier to access to the basic telephone service. When it comes to accessing new broadband technologies, the price barrier is considerably higher, including the initial costs of hardware and software, as well as online charges. Also, it is more complex, involving different kinds of prices charged by different suppliers of goods and services.

This issue is already on the public policy agenda in the US. For example, a coalition of consumer and minority groups has protested that the information superhighway was likely to bypass middle and lower income residential neighbourhoods. It was alleged that the practice of 'red-lining' (that is, block discrimination against such neighbourhoods), long familiar in the provision of banking, mortgage and credit facilities in the US, was being carried on by the telecom and multi-media companies which are building the infrastructure for the superhighway. Not surprisingly, the allegation has been contested by the companies concerned. However, it seems to be a fact that all the trials and initial plans for the information superhighway in the US involve prosperous residential and business areas, leaving middle and lower income areas unconnected.

Without shackling the development of markets as the main driving force in the introduction of the new technologies, is it practicable to embody universal access as a regulatory goal, to ensure that market forces do not have harmful social consequences? To do this means reinterpreting the concept of universal service from its previous applications to broadcasting and voice telephony to include the new information and communications technologies.

A start has been made on this in the context of the EU. The Communication to the Council and the European Parliament issued by the European Commission in November 1993 extended the concept of universal service from telephone access to include service quality standards and access to new services. The subsequent Council Resolution in February 1994 asked the Commission to discuss with national regulatory authorities how universal service could be achieved and maintained in a competitive climate – especially the financial implications. This was followed up by a paper issued by the Commission in September 1995 and a public hearing in Brussels in the following month.

This EU move is very welcome. In particular, it recognises that existing universal service obligations are funded by extensive internal cross-subsidies which are unlikely to continue in an increasingly competitive telecom environment. It is, though, still rooted in voice telephony. An integrated approach to universal service, incorporating telecom, broadcasting and the new technologies, is urgently needed.

In the UK, in its consultative document on universal service, as well as covering issues concerned with the costing and funding of universal service, OFTEL has taken a cautious step forward in two directions (1995c):

- A definition of 'basic telecom service' for all consumers is proposed along the following lines:
"individual access to the telecommunications network via switches capable of providing voice telephony; free services of itemised billing and selective call barring; an outgoing calls barred service for residential customers as an alternative

to disconnection for existing debt; and reasonable access to public call box services.”

- A higher level of universal service for all maintained schools is suggested, which might include reasonably affordable access to a wideband or broadband network, reasonably affordable and predictable network access and usage charges, and dedicated external high speed network links.

The approach that OFTEL is adopting towards the educational sector offers a possible template for extending the concept of universal service for individual consumers. It still leaves open, however, the need to integrate broadcasting within a more comprehensive definition of universal service. It is difficult to see how this can be achieved while there is still such a clear cut organisational division of regulatory responsibilities between the broadcasting and telecom sectors.

4.0 Content Regulation

The existing situation in the UK presents an extraordinary contrast between broadcasting and telecom. Broadcasting is subject to a patchwork quilt of content regulation, the outcome of a complex history of public policy development. The external regulators such as the Independent Television Commission, Radio Authority, Broadcasting Standards Council (BSC) and Broadcasting Complaints Commission (BCC) all have statutory responsibilities of different kinds, mentioned in more detail below. Some of the content regulation rules are positive – “thou shalt” – while others are negative – “thou shalt not”. Sanctions vary from hefty fines to a lightly administered slap on the wrist. The BBC is in effect a self-regulating broadcasting organisation, though, much as it would like to be, it is not completely immune from the BSC and BCC.

By contrast, statutory regulation of the content of telecom services in the UK is limited to s.43 of the *Telecommunications Act 1984*, which forbids obscene or menacing messages. There is, however, intensive non-statutory regulation of the content and promotion of Premium Rate Services (PRS – defined as those which cost more than a normal telephone call and where there is a revenue-sharing arrangement between the network operator and the service provider). This is carried out by the Independent Committee for the Supervision of Telephone Information Standards (ICSTIS 1996) which has a code of practice covering voice telephony and fax PRS. ICSTIS has 100 percent coverage of the UK PRS industry, and, through network operators’ contracts with service providers, has an extensive range of sanctions at its disposal, including fines. The sanctions are used. Fines of up to £80,000 have been imposed and in cases of urgency ICSTIS can get services removed from the telephone network virtually immediately.

Is it desirable or practical for the content regulatory systems that have been developed for broadcast television and certain aspects of telecom to be translated to new communications technologies? The prior question is whether there is a need for content regulation. In the US, the debate has been mostly about pornography and there seems to be little common ground between the powerful family values and Christian right lobby on the one hand, and the First Amendment undiluted free speechers – those who take a principled stand against any content regulation – on the other.

Is this all just another moral panic? There certainly does seem to be a lot of pornography around. In a 1995 paper to the British Association for the Advancement of

Science, Harold Thimbleby is reported in the press to have said that 47 percent of the 11,000 most repeated searches on the Internet concern pornographic material and concluded that “The Internet has been called a global electronic village. If so, most of it is a heavily used red light district.”

Another statistic is that 36 percent of a sample of images posted on five popular Usenet sites contained images taken from “adult” bulletin boards (Carnegie Mellon 1995). No doubt much of all this is fairly harmless, but there is evidence building up of far more harmful material, such as paedophile information exchange and entrapment of children for sexual purposes. In both the UK and the US there have been successful prosecutions.

Pornography on the Internet is becoming a considerable problem not only in its own right, but because word is getting round the schools that it is just not safe to give children uncontrolled access to the Internet. Public policy initiatives aimed at stimulating access to the information superhighway in schools, libraries and community centres may be undermined if it is thought to be unsafe.

It is not easy to find a conclusive answer – not least because, as with most superhighway issues, a purely national solution is not enough. In the US, the debate is still on between statutory controls and third party or self-rated filtering software, despite the passage of the controversial and contested *Communications Decency Act* in 1996. However, the two approaches do not seem to be mutually exclusive. Clearly, statutory regulation on its own is not enough – not least because in any detailed form it would be impossible to monitor. Also, encouraging schools and concerned parents to use filtering software is a good idea. The ICSTIS approach to PRS regulation in the UK suggests a third, complementary approach, which might be called ‘safe haven’ regulation.

By this is meant that those online service providers who want to assure consumers that their services are untroubled could adhere to a code of practice. This could be drawn up and enforced by a third party, with the whole system depending on contractual obligations, similar to the ICSTIS approach with PRS. Such an approach would have strong marketing advantages for reputable service providers in terms of promoting consumer confidence. It might be seen as complementary (rather than alternative) to both an outline statutory framework and filtering software.

5.0 Security

There are two major consumer anxieties about security in relation to new information and communications technologies, data protection and payment transactions.

5.1 Data Protection

Data protection legislation was designed when the new information and communications technologies were in their infancy. How effective will it be in a rapidly changing technological environment?

A recent report in *The Observer* illustrates the kind of problems that are emerging. It is said that a major UK bank has made a recent entry on the Data Protection Register that it intends to transmit on World Wide Web details of credit card account holders and transactions, as well as personal details obtained through market research. The same report mentions a case in Germany in 1995, in which three hackers were found to have illegally obtained personal financial information about eight million Germans. They used

this to set up a data trading company and made £4.5 million in a year by trading the information.

The UK Data Protection Registrar (1995), Elizabeth France, has warned of the risks:

Every time you make a commercial transaction, you risk leaving an electronic trace which can be used to develop a profile of your personal interests and tastes. And who knows through which countries your data has passed, and by whom it may have been captured in transit?

Another aspect of the need for data protection has been highlighted in a recent US report by the Centre for Media Education (1996). This gives examples of corporate Web sites which encourage children to fill out online forms with personal details such as their name, address, telephone number, age, age of siblings, interests and preferences. Data captured in this way can then be combined with Web navigational data ('clickstream') as a basis for customised and precisely targeted marketing of goods and services.

5.2 *Payment Transactions*

Consumers' anxiety about security becomes even more acute when computerised telecom networks are used as a conduit for financial payments. Reports of financial scams on the Internet are becoming more and more frequent. The banks make reassuring noises about the security of their systems, but there are hackers who view any new encryption system as a personal challenge. It only needs a tiny percentage of these hackers to be criminally inclined for the Internet to become fundamentally unstable so far as financial payments are concerned. This is an issue which needs to be on the regulatory agendas. It may not be appropriate to 'leave it to the market' to find a solution, as financial markets and institutions are notoriously vulnerable to the knock-on effects of major failures.

There is surely a major public policy interest in making sure that consumers have confidence in the security of new communications technologies. A way forward needs to be found which is workable in an international context. This is not easy, because there is no political framework for a truly global solution. Within a European context, however, there are some building blocks to hand, such as the Council of Europe Convention on Data Protection and the European Union Data Protection Directive (95/46/EC).

6.0 **Regulatory Fragmentation**

The UK provides a notable example of regulatory fragmentation. In broadcasting, regulatory responsibilities and powers are shared among the following:

- The Secretary of State for National Heritage, who holds certain direct powers under the *Broadcasting Act 1990*;
- The Secretary of State for Trade and Industry, who holds a separate set of direct powers under the *Telecommunications Act 1984* in relation to broadcasting services which also need a licence under the *Telecommunications Act 1984*. These will become of much greater significance with the importance of conditional access systems in digital broadcasting;

- The Board of Governors of the BBC is largely a self-regulating body, though its autonomy is being eroded by powers granted elsewhere;
- The ‘mainstream’ broadcasting regulators, which operate at arm’s length from government under powers conveyed by the *Broadcasting Act 1990*. These are, for television, the Independent Television Commission, and for radio, the Radio Authority. The Broadcasting Bill currently being considered by Parliament, proposes to extend their licensing and regulatory powers to digital broadcasting;
- S4C, the Welsh Fourth Channel Authority, which is responsible for the provision and regulation of Welsh-language programmes;
- The Director General of Fair Trading (OFT – Office of Fair Trading), who has specific statutory duties in relation to broadcasting, with powers conveyed by the *Broadcasting Act 1990*;
- The Director General of Telecommunications (Office of Telecommunications – OFTEL), who is responsible for enforcing much of the *Telecommunications Act 1984*. As with the Secretary of State for Trade and Industry, the increasing importance of conditional access systems will bring OFTEL to the centre of the broadcasting regulatory scene;
- The Broadcasting Complaints Commission (BCC) and Broadcasting Standards Council (BSC), which are not strictly speaking regulatory bodies, but the exercise of whose statutory functions has regulatory-type effects. The current Broadcasting Bill proposes that the functions of these bodies is transferred to a theoretically new (but in practice merged) Broadcasting Standards Commission.

In telecom, licences are issued by the Secretary of State for Trade and Industry. The primary regulator of the economic and competitive aspects of telecom is the Director General of Telecommunications. The role of ICSTIS in the self-regulation of the content and promotion of telecom Premium Rate Services has been mentioned earlier.

This patchwork quilt of responsibilities and powers does not appear to be well designed to meet the needs of either consumers or suppliers in an era of convergent technologies. The current *Broadcasting Bill* does nothing to simplify the situation, adding powers on to this or that existing body rather than undertaking a radical reappraisal of needs. If adopted, it will lead to even greater fragmentation.

Against this complicated backcloth, the intellectual debate has tended to crystallise into arguments for and against a single regulator. In favour, the case is put that:

In light of the dynamic circumstances of the technologies, industries, markets and services, the case for a single national regulator, or at least as few regulators as possible, is very strong. A strong independent regulator could facilitate the development of this new supersector within a government policy framework that encompasses public-interest objectives throughout the transformation process that is now beginning to unfold (Melody 1996).

Against, it is argued that there are serious doubts about “...the practicability of the single regulator across the whole industrial structure of convergence”, on the grounds of

excessive concentration of power in the hands of one individual or institution (Redley 1996).

What is clear is that the debate will have to be resolved at the highest political level before any significant changes can be made. The fear is that political decision-making will lag too far behind market developments and that the present confusion will act as a brake on the satisfaction of consumer needs.

7.0 Regulatory Accountability to Individual Consumers

Regulatory systems are essentially pressure-based, sensitive to the needs of different stakeholders. The good regulator depends on the stakeholders being able to articulate their needs and to tell the regulator what impact a particular policy has on their interests.

In considering individual consumers as stakeholders, there is an immediate problem. While the impact of a particular regulatory policy on the body of consumers as a whole may be immense, no single consumer may be sufficiently affected to make representations. Industry interests are usually highly focused, while consumer interests are diffused.

Pressure on the regulator from industry interest may be sustained, intensive and heavily resourced. For example, in the UK the Licencees' Sponsorship Group is currently working out of the public gaze to persuade the main broadcasting regulator, the Independent Television Commission, to relax its rules on programme sponsorship. It wants more sponsor influence over programmes, more sponsor credits, more advertiser supplied programmes and more product placement. Individual consumers do not know that this is going on, and in any event might be hard put to analyse the implications for themselves of what is being proposed.

In general, regulators – however well-meaning – have not developed very effective systems for identifying and quantifying the consumer interest. A recent study in eleven European countries of the responsiveness of broadcasters and broadcasting regulators to consumer needs found some examples of good practice. However, none of the broadcasting regulators had developed fully effective systems for assessing the impact of their policies on consumers (Mitchell and Blumler 1994).

One way through this problem is for the regulator to internalise and institutionalise the consumer interest in regulation. A UK example from the field of financial services regulation is that the Personal Investment Authority, which regulates the marketing of retail investments and life insurance, has set up a Consumer Panel, which has the job of representing consumer interests to the Board. This is beginning to work well. The Consumer Panel has its own, free public voice as well as a direct line to the Board. It is a step in the right direction that OFTEL has recently set up a consumer panel, though its remit is currently confined to the price control review process.

There has, however, been a setback on the UK broadcasting front. A coalition of consumer and viewer organisations put forward a cogently argued proposal to the government for the setting up of a broadcasting consumer council, a proposal which has been rejected by the government although it has the support of the opposition political parties. There clearly remains a need for an effective representation of the interests of consumers in existing or new regulatory structures.