

**article:**

# the 'napsterization' of the european content industry

## a scenario for 2005

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*A new generation of digital communications is making cultural resources available to all, using an open network (the internet) and the peer-to-peer technique. In their use of digital compression these websites correspond exactly to the Napster.com model, whose activities forced music catalogue owners to rethink their strategies and regulatory authorities over copyright material. From a paper prepared for the Council of Europe, this article considers the development of the content industry in Europe by 2005, in anticipation of new applications such as tele-education, tele-medicine, tele-detection and tele-surveillance, using a combination of IP (Internet Protocol), DVB (Digital Video Broadcasting) and MPEG standards. We also examine the interplay of the various political and industrial interests involved, using in particular the technique of 'scenario mapping'.*

The content industry is at the heart of electronic commerce. Since the mid-1990s it has been seen as epitomising the process of convergence in the information and communications industries (telecommunications, audiovisual communications, information technology and publishing). The protection of its interests in relation to competing industries in North America and Asia is an increasing concern of the Council of Europe. By 2005 it is assumed that the Council will be one of the main political and institutional forums helping to govern the organization and operation of the content industry in Europe. It is already digesting the implications of a major US court case.

## The Napster case

On 26 July 2000, US District Judge Marilyn Hall Patel granted an application by the powerful Recording Industry Association of America (RIAA) for an injunction against Napster Inc., requiring that company to shut down a website it had created for the purposes of exchanging compressed music files.<sup>1</sup> Though modified within hours by an Appeal Court,<sup>2</sup> the ruling was not fundamentally called into question.

1. Judge Patel's decision was based chiefly on the finding that Napster's activities infringed the rights of the composers or copyright holders of the recorded music downloaded through its agency. The judge's decision was all the more significant in that it included very explicit findings with regard to the directors of Napster Inc. – *'The plaintiffs have shown a strong likelihood of success on the merits of their claim [...] for contributory and vicarious infringement [...] Napster is causing plaintiffs serious and irreparable harm by unlawfully making possible, facilitating and encouraging the massive, continuing infringement of the sound recording and musical composition copyrights owned by plaintiffs'* – reinforced by her harsh comment, following the ruling, that Napster had 'created a monster' and 'That's the consequence they face'.

2. The two appeal court judges appeared to take account of the number and significance of the legal issues raised by the case against Napster Inc. Although they granted the company a reprieve, they tied the parties in the case to a very strict timetable, which experts consider particularly tight.

3. The options include the introduction of a system of compulsory licences for the downloading of musical works via the internet at greatly reduced cost, through services such as that announced by Emusic.com Inc of Redwood City, California, shortly after Judge Patel's decision. Emusic offers its users unlimited access to musical works covered by compulsory licences for a monthly fee of \$ 9.99.

4. According to one American expert in intellectual property issues (Larry Iser), *'All this litigation is really setting the groundwork for what is going to be the future of the internet.'*

It was significant not only in terms of its object – the closure of a nationally and internationally famous website with some 21 million users<sup>3</sup> – but also in its implications. In effect, it raised the central problem of how to adapt public policy – particularly regulatory policy and strategic industrial policy – to the continuing development of New Techniques of Information and Communication (NTICs). And with the advent of experimental digital communications platforms, that problem can only increase in scale.

It is, moreover, interesting to note that Judge Patel's decision – the first of its kind concerning the protection of intellectual property rights on the internet – immediately threw open the debate on this twofold issue. With regard to industrial strategies, it was clear that the decision did not amount to a victory for one camp (those defending copyright on the basis of the existing system) over the other (which seeks to adapt that system to the requirements of the emerging new economy). Rather, it required the two camps to engage in close and urgent co-operation. Napster responded by taking its fight to the US Supreme Court.

Others, however, were talking. Within days of the judgment, the owner of Napster's file compression technology, MP3.com Inc., had concluded industrial agreements with music giants BMG, Warner and EMI. A number of US Congress members also followed the case attentively and have announced their intention of exploring ways to adapt the Digital Millennium Copyright Act (passed as recently as 1998).<sup>3</sup>

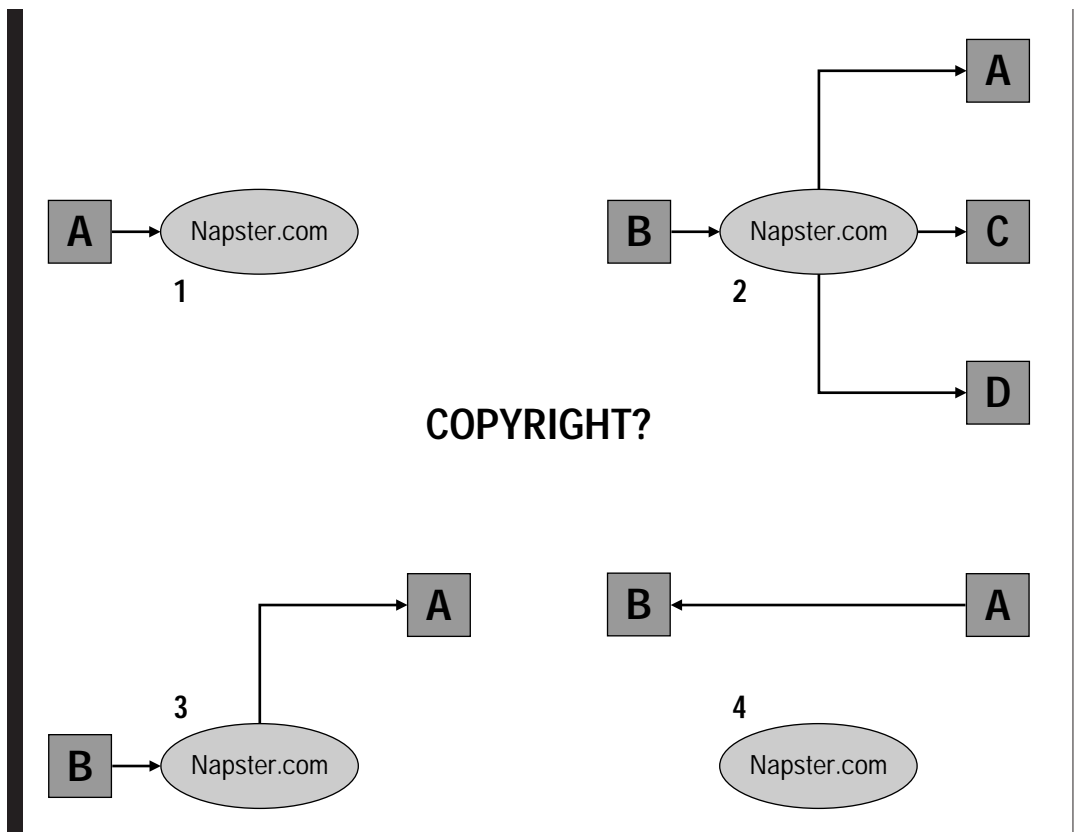
The issue on which this case turned can be summarized thus: do the rules and methods of regulation applicable to the old economy (of material exchange and proprietary systems) have a place in the emerging new economy (of immaterial exchange and open systems)?<sup>4</sup> Its implications

challenge the entire international community, and become obvious when we consider what was new in the technique that made Napster such a success, and what spurred the RIAA to take it to court.

The MP3 compression technique is based on the dematerialization of authorized content on the internet, a technology that tremendously reduces the transmission volume of digitized data containing sound or pictures. The rise of portable MP3 players (MP3 being the popular name for MPEG 1 standard, layer 3) has been rapid. Replaying music files downloaded from the internet to CD-like standards of sound quality, MP3 has significantly altered the way that consumers relate to the content of protected works to which they have access.

Those behind Napster argue that the site merely facilitates the free exchange of music files, and as such does not infringe copyright. Indeed, before downloading any MP3 files, users are invited to register their own catalogue of sound recordings, thus swelling the resources of a database that is managed by the site in the general interest. As shown in Figure 1, after downloading some application software, visitors log their requests for music files. The software then identifies the user who has the recording, and notifies the user making the request. The recording is then downloaded directly from the computer of the former to that of the latter, without intervention by Napster, Inc. The system constitutes a genuinely original intermediary service, linking pairs of users on a peer-to-peer basis; unlike the Cute MX, Scour.net or Gnutella sites, or indeed Freeserve, it does not offer access to a central server.

**Figure 1:** How a peer-to-peer sharing site functions.



Here we begin to appreciate the complexity of the legal arguments put to Judge Patel, the central question being whether, in allowing access to a protected work without the permission of its author or copyright owner, intellectual property rights are infringed. The purpose of copyrighting works is to protect them from acts of counterfeiting (i.e. unlawful reproduction). But can authors evoke copyright in order to prevent their works circulating freely between individuals? In the 'real' economy, a person who, for example, reads a book may then share the pleasure with a friend by lending the book. Why should the same process not be possible in the virtual economy? And by seeking to regulate that economy too tightly, do we not simply run the risk of stifling its development? Purchasers of 'e-books' are already bound by more terms and conditions than buyers of 'real' books.<sup>5</sup> Where Napster, Inc. transgressed was in setting up a site to put such sharing on an organized footing,<sup>6</sup> providing a system for the exchange. But should such an activity be punishable under the criminal and civil laws protecting copyright?

According to copyright owners and the associations representing them, such a system of sharing is, in fact, piracy. Yet, even within the US regulatory system, it is permissible under the Audio Home Recording Act of 1992 to make musical recordings, and while the Digital Millennium Copyright Act reaffirmed the exclusive rights of copyright owners in protected works and increased the penalty for infringement of intellectual property rights, it did not (for good reason) explicitly prohibit the circulation of a work for private or personal use.

American experts in intellectual property law<sup>7</sup> have been quick to cite the US Supreme Court decision of 1984<sup>8</sup> in which Sony Corp. was cleared of accusations of copyright infringement made against it when the first video recorders went on sale: in a majority opinion (five judges versus four) the Court held that the video recorder was not incompatible with intellectual property rights and did not infringe those rights. Yet, without overplaying the parallels, it can be said that the video recorder did for the distribution of audiovisual works in the early 1980s what the Napster, Inc. site is doing in its field in the early 21st century. More or less the same arguments are being advanced on each side today, with the emphasis on differences of 'degree' or differences of 'nature', depending on which camp you listen to.<sup>9</sup>

Whatever the legal niceties of the Napster case, file compression technology is evolving so fast as to make the implementation of any injunction all but impossible. In San Diego (California), a few days before Judge Patel heard the Napster, Inc. case, a young French-born technician<sup>10</sup> from Silicon Valley demonstrated a new technique known as 'DivX'. This makes possible a process that the cinema industry had reckoned to be many years away: the downloading of films via the internet in just a few hours. The process relies on the combined resources of the MPEG-4 digital compression standard and a program called DeCSS, recently released by Microsoft. It offers a means of breaking the security codes that the cinema industry uses to protect DVDs.

Several official sites, including Gej's<sup>11</sup> are already popularizing the potential of DivX. It is thus becoming available to a vast number of users, so that we must now

5. Contracts sent to purchasers declare that the content of the book may not be transferred to any third party and that copying for private use is prohibited – whereas it is tolerated in the case of 'real' books.

6. A total of 1400 sound recordings are downloaded from the Napster.com site every minute.

7. In particular Professor Jonathan Zittrain (Harvard Law School). For an analysis of the legal problems raised by the MP3 standard in the United States, see in particular Kevin Kelly, 'The MP3 Challenge: Has Congress Effectively Shielded the Music Recording from Internet Copyright Piracy?', *Temple Environmental Law and Technology Journal*, Vol 18, No 2, Spring 2000, pp 163–190, and Sonias Das, 'The Availability of the Fair Use Defense in Music Piracy and Internet Technology', *Federal Communications Law Journal*, May 2000, pp 727–747.

8. *Sony Corp of America v Universal City Studios Inc.* (Betamax case), 464 US 417 (1984)

9. In November 1999 a US Appeal Court found that the Rio, a small device that allows the user to listen to sound recordings downloaded as MP3 files, did not infringe the Digital Recording Act (Recording Industry Association of America v Diamond Multimedia Systems Inc., 180F3rd 1072, 1076, 9th Circuit 1999). Comment on this case includes Sonias Das, *op cit*, Ref 7.

10. Jérôme Rota, nicknamed 'Gej';

11. [www.mydivx.com/](http://www.mydivx.com/); [divx.ctx.cc/](http://divx.ctx.cc/);

[www.fm4.org/www.digital-digest.com/divx/windows.divx/st/](http://www.fm4.org/www.digital-digest.com/divx/windows.divx/st/).

seriously expect techniques, commercial practices and uses in relation to audiovisual material to develop along much the same lines as those in the music field. It is significant that, alongside the Napster case, Scour.net is the subject of a similar legal submission by the Motion Picture Association of America (MPAA), and it is likely that the 'Napster' culture will extend to other forms of entertainment. Swapoo.zoophar.net, for example, enables users to download video-game programs owned by the Japanese manufacturers Nintendo and Sega.

It is clear that the development of experimental digital communications platforms can only reinforce this trend, by offering users all the technical possibilities of IP (Internet Protocol) with those of the DVB (Digital Video Broadcasting) and MPEG standards.<sup>12</sup> Thus not only the record industry, with its current forms of organization, protective regulations and professional practices, could be undermined: the same threat applies to the film industry and, in a general way, to the entire content industry. It is likely that those industries will have to adapt accordingly in the near future.

This brings us to a specific feature of the new economy that is emerging with the rapid development of the internet: the elimination of traditional intermediaries and the creation of new forms of mediation between producers and consumers. In the record and film industries, however, the intermediaries have, in the past, been crucially important. Whether as retailers, promoters, marketers or broadcasters, they have served to generate new musical fashions, influence consumer behaviour and establish a full-scale popular culture industry. It is this entire industrial and financial edifice, serving ends that may well be far removed from artists' initial cultural ideas, that is now fundamentally threatened.

Broadly speaking, that is the nub of the current debate about the need to respect copyright – a debate involving highly corporatist approaches dressed up as serious legal arguments. A recent study (2000) by the Massachusetts Institute of Technology (MIT) actually indicates that since the early 1980s, the authors of copyrighted works have made more money from the very wide distribution of their works over the internet than through the copyright system as traditionally implemented. Yet the economic justification for introducing a system of intellectual property is the need to reward and stimulate authors' creativity through protective rules. It would seem from the foregoing that this function is no longer performed by the protective rules currently in force. We must therefore ask whether those rules ought to be retained in a new economy operating on the principle of market fluidity.

We can thus identify a growing, convergence-driven trend in the industry, which it is fair to label 'Napsterization'. It sums up all aspects of the complex situation apparent in the new economy. It encapsulates and facilitates analysis of the emerging problems of that economy and their potential solutions, and offers an insight into a process of change that is only just beginning. Examining this phenomenon seems a useful means of assessing the changes at work in the NTICs sector, in particular as IP, DVB and MPEG standards converge in new digital communications platforms.

This paper therefore outlines a scenario for the year 2005, a date

selected to permit a meaningful illustration of probable developments in the early years of the 21st century, given the evolution of the technology, the emerging industrial strategies and the public policies, especially regulatory policies, that are likely to be introduced. The paper uses a

12. See, in particular, Baoding Hsieh Fan, 'When Channel Surfers Flip to the Web: Copyright Liability for Internet Broadcasting', *Federal Communications Law Journal*, May 2000, pp 619–646.

scenario mapping technique.<sup>13</sup> It concludes by recommending forceful action that can only be undertaken on a broad European basis. The Council of Europe – whose legitimacy and specific policies for the sector in question are envisaged – might well provide such a basis, enlarging and extending the initiatives taken by the relevant institutions of the European Union.

## Looking back from 2005<sup>14</sup>

### *From digitization to convergence*

In 2005, a new global and European industrial entity has developed, necessitating changes in the geographical context of public policy. The World Trade Organization, UNESCO, the OECD, the World Intellectual Property Organization (WIPO) and the International Telecommunications Union (ITU), in their respective areas of competence, have successively or simultaneously exhausted the possibilities for multilateral negotiation of a cyberspace agreement. The negotiations broke down because they were expected to achieve too much in relation to such issues as cultural exception/diversity, taxation, regulation, national regimes, personal data protection, trans-frontier data flows, and procedures for dispute settlement.

The main effect of the negotiations was to highlight the extent of cultural divisions between developed and developing countries, common law and continental law countries, and the USA and Europe, for example. The apparently intractable nature of the divisions seemed to be an argument for the introduction of regional public policies. Europe had benefited significantly from European Union initiatives and from the legal framework of Community law. But this had become too restrictive for the development of broadly based policies. The legitimacy of European Commission activities had thus been undermined and Commission 'cultural' initiatives were increasingly contested.<sup>15</sup> The nature and scale of the problems necessitated a policy initiative that:

- was based on a pan-European (rather than merely west European) vision;
- reflected a basic consensus on a set of fundamental values;
- worked through a genuinely political institutional framework (as opposed to the purely administrative context of the European Commission), facilitating inter-parliamentary and inter-regional co-operation;
- would open dialogue with the professional umbrella organizations representing the industries concerned, in particular the collective copyright-management bodies.

The Council of Europe was seen as offering the appropriate framework, all the more authoritatively inasmuch as Article 10 of the European Convention on Human Rights and the European Convention on Trans-frontier Television (1989) gave it legal responsibility in the field concerned.

The situation described evolved as the result of an unprecedented technological shift: the digitization of audiovisual and telecommunications networks, data and systems (see Figure 2). Digitization is the encoding of voice,

13. This involves describing the main stages in the development of a situation or a particular industry in order to present them, where appropriate, in diagram form, using the model proposed by Professor Alan K. McAdams in *Info*, Vol 2, No 2, April 2000, p 153.

14. The following scenario draws in several places on information from the French Planning Commission document published in February 2000 *L'infosphere: stratégies des médias et rôle de l'Etat*, a report compiled by the group chaired by Eric Baptiste (La Documentation Française, February 2000). It also uses information from the report submitted in December 1999 by Eamon Cahill and Fabiana Scapola for the European Commission conference entitled 'The Futures Project – Technology Map'. Other reference sources include the *European Commission's Green Paper on the convergence of the telecommunications, media and information technology sectors, and the implications for regulation*, COM (97) 23 final.

15. In the Conclusions of the Council and of the representatives of the governments of the member states, meeting within the Council of 26 June 2000 concerning the communication from the Commission on principles and guidelines for the Community's audiovisual policy in the digital age (*Official Journal*, 12 July 2000, JOC2000/196) it is already clear that the member states are keen to recover the initiative with regard to policy for the content industry.



Instead we see in 2005 a different situation, which we can portray by examining the actual effects of convergence:

- Digitized networks remain distinct for telecommunications (whether via fixed-line or mobile phones), audiovisual communications (via cable or over the air) and computing (public and private). What *has* changed is that increasing bandwidth has made them more easily inter-connectable – transmissions via a single network are now rare. These conditions have been significantly facilitated by changes, under laws designed to abolish monopolies, in the regulations governing each type of infrastructure; by the establishment of rules for interconnection; and by the fact that effective case-law solutions have been delivered under legislation on competition.<sup>17</sup> Questions still need to be asked, however, about the relevance of retaining so-called 'pluralist' rules that are overly restrictive or too concerned with the protection of national interests – limiting, for example, non-European capital holdings in network and content companies.<sup>18</sup>
- Communication systems have increasingly diversified, thanks to digitization: audio CDs were rapidly followed by CD-ROMs and then DVDs; digital television decoders have made possible the passive reception (and soon interactive reception) of broadcast television programmes and video services on demand. Operators have increasingly made their own programme selections to differentiate themselves from their competitors. The internet has moved the technological goalposts by fostering the emergence of the new MP3 and MPEG4 standards, which, as we have seen, permit users to download audio or audiovisual files in a few hours. The entire copyright system for such works was thrown into turmoil by shockwaves from the Napster case, which, as we have seen, revealed just how far the consumer's relationship to accessible content had changed, and amply demonstrated the vulnerability of the European industry.

- Terminals themselves have continued to diversify, and differentiated use has won out over the once cherished dream of a single terminal (set-top box, PC or telecommunications terminal). The platforms used have certainly become interoperable, particularly with the adoption of standard languages (JAVA or JINI), making the different-use systems mutually comprehensible. But users continue to distinguish – and apparently *want* to distinguish – between their video-game consoles and their computer or TV screens. The internet access offered by a new generation of mobile phones using the WAP (Wireless Application Protocol) standard has proved limited, although new standards such as GPRS (General Packet Radio Service) and especially UMTS (Universal Mobile Telecommunications Service) have significantly increased transmission speeds and made it possible to transform mobile phones into real multimedia terminals. The hopes raised by UMTS have been punctured, however, by a shortage of frequencies in the United States and by the US regulatory authority's difficulty in resolving the associated problems.<sup>19</sup> 'WebTV' is still in limbo although satellite platforms have been developed at the instigation of the major public and private operators as a means of optimizing their systems and offering new services.<sup>20</sup>

17. Notably the acceptance by numerous regulatory bodies in Europe – and by the Court of Justice of the European Communities – of the American concept of 'essential facilities'. In relation to this concept see, in particular, Mélanie Thill-Tayara and Cyrille Couadou, 'Le droit d'accès à l'épreuve de la théorie des installations essentielles', *Contrats, Concurrence et Consommation*, Editions du Jurisclasseur, May 1999, p 4.

18. Section L33-1-III of the Code français des postes et télécommunications and, more particularly, Section 68 and following sections of the new French Law of 1 August 2000 (Law No. 2000-719 amending Law No. 86-1067 of 30 September 1986 on freedom of communication, *JO*, 2 August 2000).

See also, on this subject, the author's comments in 'Le régime juridique des investissements étrangers dans le secteur des télécommunications après l'entrée en vigueur du Quatrième protocole annexé à l'Accord Général sur le Commerce des Services (AGCS)', *Dalloz Affaires*, 1998.

19. See, in particular, 'Rising Demand for Airwaves Raises Fear', *Wall Street Journal*, 2 August 2000.

20. In France, for example, the CNES Plateforme de Communication Numérique par Satellite (PCNS) (see below).

The impact of convergence has been felt particularly by the industries. Greater flexibility in national regulatory systems has fostered the creation of new industrial entities that have increased their worth by a third in five years (from just under 1500 billion in 2000 to 2103.5 billion in 2005, an annual growth rate of 7%). The telecommunications, audiovisual communications and information technology sectors remain equally important in the overall picture, although it has become hard to identify their respective contributions. The private sector now carries the greatest clout, although regulators are still very actively concerned with public and universal service issues (such as those of territory, rights of access, pluralism, public radio broadcasting and fair charging).

The new industry has emerged thanks to vertical integration, driven in most cases by external growth (with the buying of shares on the stock exchange, acquisitions and takeovers) and instigated in some cases by infrastructure operators<sup>21</sup> and in others by content suppliers or broadcasting networks.<sup>22</sup> But the existence of powerful groups has not entirely eliminated the previous distinctions between activities, with their associated and ultimately very different business cultures and traditions: telephone engineering is not film-making, and audiovisual communications (television, radio and cinema) are not the same as the internet. On the other hand, each of these activities has become highly diversified and, indeed, more complex as the value chain evolves. Each has been enriched by newcomers from different sectors (the fibre or transport industries, for example, distribution or public authority servicing) that have now linked up, thanks to convergence.

### *Experimental digital communications platforms – the apex of convergence*

In 2005, convergence has compelled the major operators to introduce experimental digital communications platforms, the first of which appeared in the early 2000s. Using either radio local loop networks<sup>23</sup> or geo-stationary satellite systems,<sup>24</sup> these can simultaneously:

- exploit the potential of costly and under-used infrastructure and the know-how gained from its operation;
- profit from the innovations of the internet boom, the combination of the IP, DVB and MPEG standards, progress in information accessing (i.e. push/pull and cache techniques), advances in IP multicasting, TV/internet cohabitation and the promise of interactive television;
- develop new applications based on technological innovation or breakthrough (e.g. interconnection services for special sites, or those that are poorly served or require a specific connection: tele-education, tele-medicine, tele-detection and tele-surveillance).

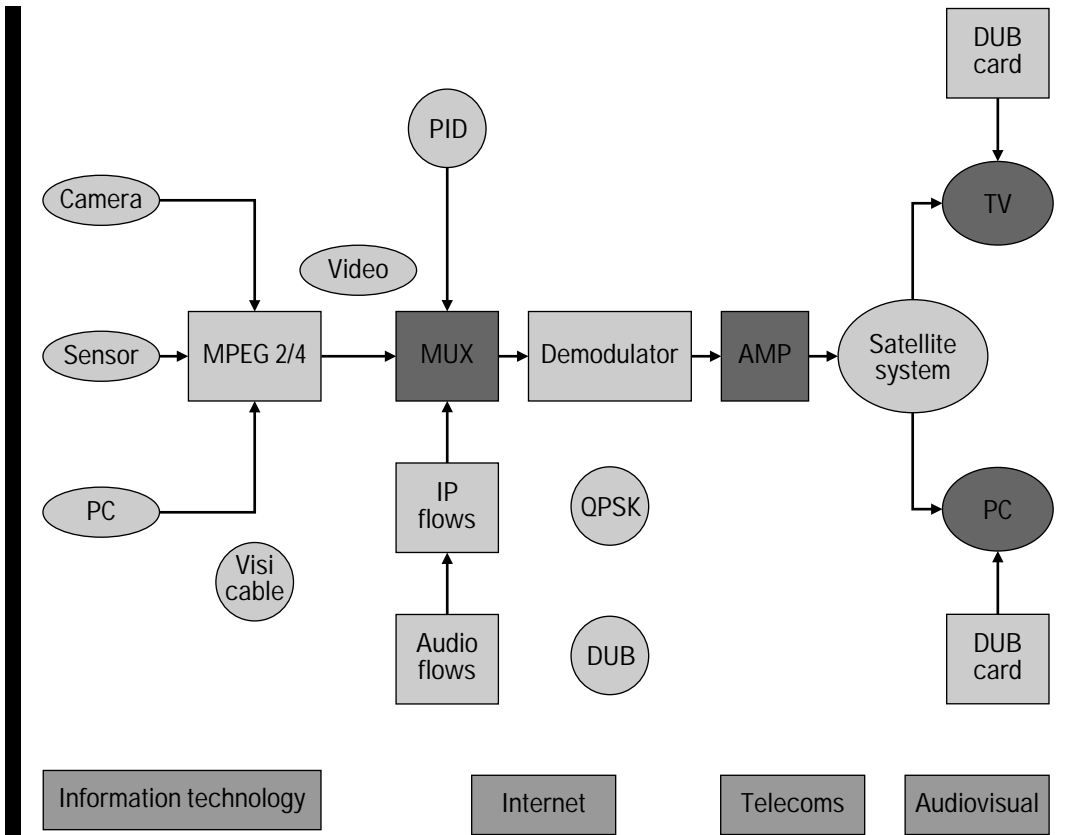
Figure 3 shows the basic technological architecture of an advanced communications platform using the resources of a satellite system. The development of such platforms challenged the way that national regulatory and legal systems were organized. Most made a distinction between two sets of rules, the observance of which was the responsibility of separate regulatory bodies: one for audiovisual communications (TV, radio and cinema) and one for telecommunications.

21. E.g. the Vivendi-Seagram (Universal Studio) alliance.

22. On the model of the AOL-Time Warner merger.

23. Of the LMDS (local multipoint distribution service) type, facilitating wireless IP experiments in the 3.5GHz and 26/28GHz bands or experiments in the band centred on 41GHz.

24. Using, for example, Skyplex/Hotbird 5 (13° east) for DVB-broadcast-type data flows and a transparent repeater for interconnection services, with the associated ground systems (for audiovisual applications, access to telematic networks, IP/DVB gateways and specific application servers).

**Figure 3:** Outline of a satellite-based experimental digital communications platform.

But the problems posed by the introduction and use of these advanced platforms lay in a grey area between the fields, covered by the two sets of rules and the responsibilities of the two kinds of regulatory body. This underscored the difficulty of maintaining the distinction, even though its nature was changing as it tended to reflect a division between two types of activity: the dissemination of audiovisual communication programmes by the content industries, and the establishment of routing and carrier infrastructure by the 'media' industries. The distinction could be justified only as long as the techniques being implemented corresponded to types of use that were distinct and clearly differentiated by their users.

More worryingly, beyond these basic concerns it soon became clear in 2005 that the introduction of digital communications platforms fell between various stools in the existing regulatory system and posed new problems that could not immediately be resolved under the rules as they stood. To cite just one example, French telecommunications law distinguished between three types of network for which there were different authorization systems:

- networks open to the public;
- independent networks (for private or shared use in a closed user group); and
- internal or local networks.

It was under the rules for independent networks – covered by a 'class licence' system of implicit authorization – that the first platforms got the go-ahead in France. So long as they remained experimental and were concerned with telecommunications, they fell within the definition of independent networks, associated with the (albeit evolving and broadly interpreted) concept of 'closed user groups'. But as soon as they began to enable satellite broadcasting of audiovisual communications programmes to take place on a network using the IP standard, it was recognized that audiovisual communications law made no provision for this type of service.<sup>25</sup> It fell neither under the responsibility of the telecommunications regulatory body, which had no power to authorize an audiovisual communications service, nor under that of the audiovisual communications regulator (in the absence of relevant legal provisions enabling the latter to extend its remit). Yet the dissemination of audiovisual communications programmes implied editorial responsibility, and in this case such responsibility was assumed without any franchise setting out the broadcaster's obligations.

The situation proved all the more disquieting for the ability of third parties to access the network from outside. While applications were at the experimental stage, the implications were limited. But concern grew about threats to particularly sensitive services such as tele-medicine, which handled highly personal data and directly raised the question of respect for human dignity. The same concerns underlay fears that the downloading of copyrighted works (whether sound, music or audiovisual material) would become a routine operation on networks that offered the combined potential of IP and the DVB and MPEG standards.

It thus became clear that the development of such platforms, while not necessarily requiring root and branch reform of national regulatory systems, merited closer attention from all concerned (national authorities, professional organizations, operators and international institutions), with a view to the possible definition of a specific set of rules.<sup>26</sup> These rules, which clearly could not impede the development of the platforms, were envisaged as being part of a harmonized and (given the nature of the systems and services in question) international legal framework.

25. Certain changes in national legislation to take account of the new situation should, however, be noted e.g. the French law of 1 August 2000 (referred to above), which has now introduced a system of prior notification to the CSA (Conseil supérieur de l'audiovisuel) for this type of service (see Section 34(2)).

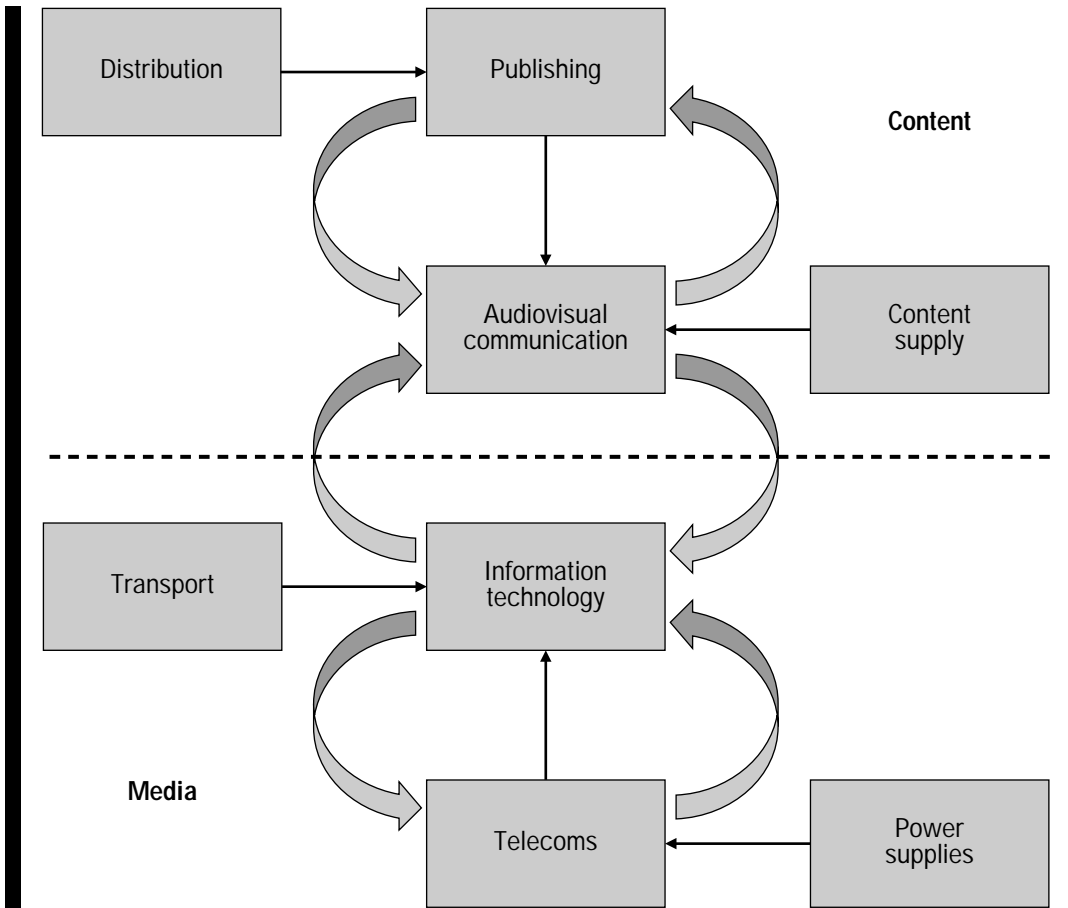
26. The problem is not a specifically European one. It is also acutely felt in the United States, where the authorities have hesitated to put in place a specific legal framework for the new digital communications platforms. In relation to the issue generally see, in particular, Baoding Hsieh Fan, 'When Channel Surfers Flip to the Web: Copyright Liability for Internet Broadcasting', *Federal Communications Law Journal*, cited above.

27. We saw above that convergence had led not to a confusion of communications infrastructures but to their de-specialization, thus encouraging their interconnection and combination in a new type of network and so stimulating the introduction of experimental platforms as described in the previous section of this paper.

### *From converging business sectors to converging public policies*

A logical sequence of developments in the first years of the millennium saw a number of separate phases in the convergence of business practice with public policy.

The digitization of networks, communications systems and terminals, coupled with progress in data compression, consolidated a trend towards the convergence of previously distinct sectors – one that had begun in the economic sector (see Figure 4). But the effects of this trend were offset by the fact that types of use remained quite distinct, particularly in terms of consumer behaviour. Convergence did not mean confusion of the economic sectors concerned, which remained distinct and, as such, had to be governed by different legal provisions, and were the responsibility of different regulatory bodies. The convergence of economic sectors was thus more of an ongoing process (or 'dynamic') than an established outcome that required formal recognition.<sup>27</sup>

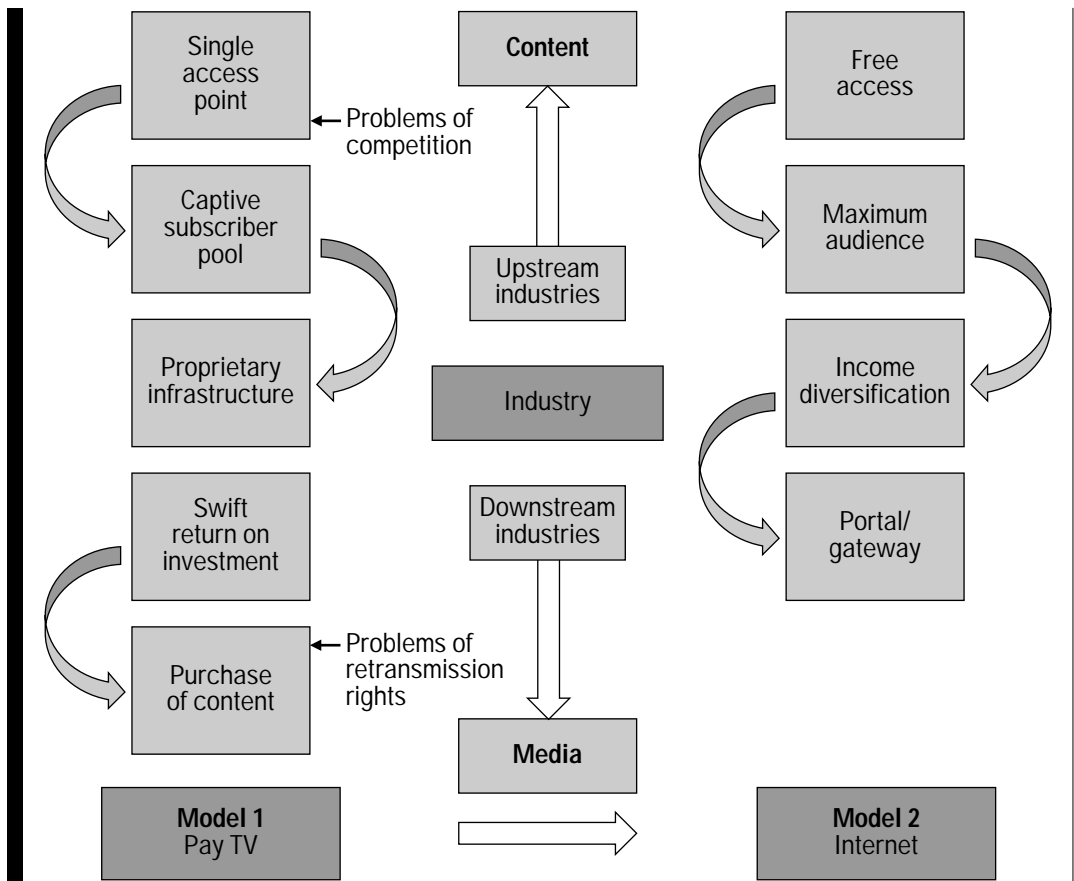
**Figure 4:** Process of convergence.

Influenced by national policies promoting openness to competition and the dismantling of monopolies, the various industrial sectors concerned had become highly diversified, gaining from the inclusion of new players from associated sectors (such as the fibre industry), complementary sectors (such as distribution) or even quite different sectors (examples included air and rail transport companies and power generators). Competition in Europe had become fierce and the pressure towards convergence had imposed a particular industrial development model.

Here we saw the second type of convergence, that of industrial strategies. This sought to achieve the dual goals of volume and 'club' effect, according to the well proven economic law that the value of a network grows in proportion to the square of the number of individuals it attracts and the number of structures it links. Conglomerates and consortia were set up on the basis of long-term partnerships, which were more often than not international (European or even Euro-American), between content suppliers and infrastructure operators. There was, however, no contradiction between the pursuit of vertical integration strategies (through the formation of conglomerates or the conclusion of international alliances), and the implementation of niche strategies that focused a company's activity on its original or core area of skill.

By 2005 two new business models had emerged, around which the European content industry was now organized (see Figure 5). The first, created by the audiovisual communications sector, relied on the advantages of 'proprietary' infrastructure and the existence of a pool of subscribers who, because there was only a single point of access, represented a captive market. Such a model is, however, sustainable only as long as there really is just one access point, which remains incompatible with other systems. The fact of having a captive market, coupled with the advantages of a proprietary network, enabled companies to recoup their start-up investment very quickly. They were able to plough their early profits back into producing content for their subscribers, and diversify their services on increasingly attractive terms. These factors stimulated competition, with access being offered at ever lower cost.

Figure 5: New management models.



28. Apart from advertising resources, eight different methods of financing are currently in use: sponsorship; co-financing; sales of derivative products; online sales of newspapers and periodicals; charges levied on products sold in e-commerce; content use licensing; delegated production (or bartering); and the sale of skills and expertise.

The second model, which originated in internet operations, was based on free access to an open network. It sought to maximize its audience and finance operators' (access and content providers') activities either through the principle of payment on demand – reflecting, in this respect, the first model – or through transfers of resources, chiefly from advertising.<sup>28</sup> The central problem with the second business

model was, however, the need to stabilize audiences in order to make such revenue sustainable. It was for this reason that the model developed to include the new and original practice of using 'gateways', which not only enabled operators to broaden their activities and serve an ever wider audience, but also to foster industrial integration by linking all the various fields of expertise (infrastructure, access equipment and programmes) associated with the content on offer. As we shall see, the second model began to replace the first as the European content industry evolved, leading to the third type of convergence, that of management models.

The economic viability of these models depended, however, on two key factors: market consolidation and the erection of barriers to market entry (an industrial strategy to preserve advantages and deter competition). Market consolidation is vital in a field where any foot-dragging damages a nation's ability to compete in global markets. Europe experienced this problem in the early 2000s: outstripped by its North American, and to a lesser degree Asian, competitors, by 2005 it had still not managed to catch up.<sup>29</sup>

In analysing such strategies we must take account of the costs that faced operators seeking to enter the market, such as infrastructure deployment and programme acquisition (in a market where the acute shortage of content had sent the cost of broadcasting rights through the roof). These costs could not be under-estimated and care had to be taken not to increase them through routine regulation.<sup>30</sup> Barriers to entry took many forms. They may be listed as follows (in increasing order of importance):

- de facto standards;
- the (decoder) system of access control;
- proprietary infrastructures;
- captive markets;
- control of a digital communications platform; and
- intellectual property rights.

But reliance on such barriers was an extremely short-term strategy that was called into question by both technical progress and globalization. And in the fallout from the Microsoft case in the United States and Europe,<sup>31</sup> we can see that it was undermined by the need to observe the rules of competition in what were now open and contestable markets. Experience, particularly in the American industry, had demonstrated that, in the medium to long term, successful operators were those who could continually rethink what they did, forge the necessary alliances and invest in new fields.

### North Sea bubble

The European content industry was established in an essentially speculative context of ample capital and expectations of economic growth. The abundance of capital reflected, in particular, the globalization of financial markets and a temporary excess of available resources from pension funds, swelled by the contributions of the 'baby-boom' generation. But the context had gradually been altered, not only by demographic factors but also by advances in

29. The extent of the lost ground was already evident between 1999 and March 2000, when the number of computers with internet host applications per thousand head of population increased by 25.1 in the United States as against 5.5 in the United Kingdom, 4.1 in Japan, 3 in Germany and 2.7 in France (OECD, *A New Economy? The Changing Role of Innovation and Information Technology in Growth*, June 2000). The OECD study blames Europe's under-performance chiefly on communications costs and lack of encouragement for innovative businesses. It adds that the United States 'seems to be currently enjoying a virtuous circle linked to network effect, in which demand for and supply of internet-based services and electronic commerce are mutually reinforcing'.

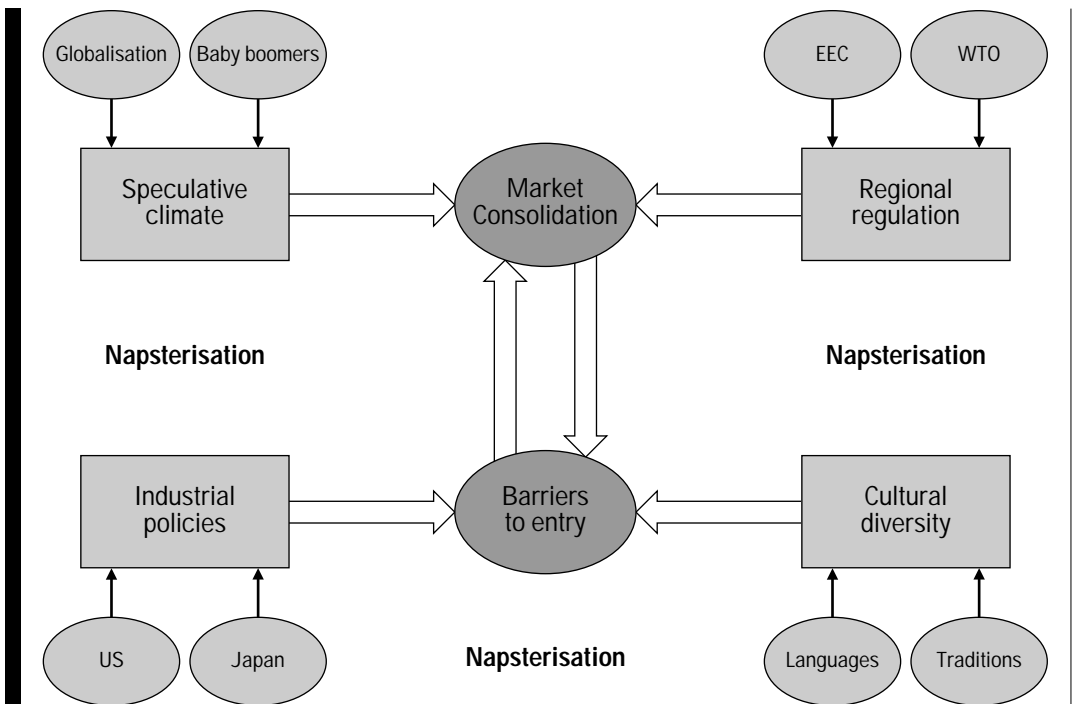
30. It is astonishing that regulatory authorities have consistently neglected the significance of entry costs, in some cases creating conditions that make access extremely difficult for the operators concerned and indeed deterring them (such conditions include the system of charges for spectrum use, the requirement to contribute to the financing of universal services, and the system of compensation for owners of spectrum or orbit positions that are not fully cleared). On this question generally see Marc Naftel and Larry Spiwak, 'The Telecoms Trade War', preface by L. Rapp (to be published in 2001), starkly portraying the shortcomings of telecommunications regulation in Europe and the United States and denouncing 'neo-mercantilism' on the part of the authorities concerned.

31. In July 2000 the Commission of the European Communities announced that it would take action in Europe on the basis of Sun Microsystems's case against Microsoft.

instruments for financial analysis, more reliable and exact methods of evaluating companies quoted on the high-tech securities market, and by investors' own ability to anticipate market trends. The bubble of speculation in high-tech securities was tending to deflate, thanks to a series of adjustments by the financial markets, and investors becoming increasingly circumspect. In the early years of the 21st century this was a growing source of problems, for which appropriate measures were being considered.

Thus convergence was having a political impact, and the need for consistent policy at the right political and territorial level was making itself felt (see Figure 6). The World Trade Organization (WTO) was struggling to impose the provisions of the General Agreement on Trade in Services as a basis for the functioning of industry around the globe. Under Article XIV of the Agreement, states could take measures to protect the interests of their national industries, but the WTO's Reference Paper on Pro-competitive Regulatory Principles did not constitute an adequate basis for tackling bottleneck situations in the management of the frequency spectrum<sup>32</sup> or rare resources generally (e.g. numbering, rights of way, domain names).<sup>33</sup>

Figure 6: Public policy convergence.



32. In the United States, for example, temporary unavailability of frequencies is helping to hike up the cost of third generation (UMTS) licences and forcing the operators concerned to buy positions from existing operators (notably Paxson Communications Corp) that were not due to clear them officially until 2006.

33. On this question generally see Pradip Bhatnagar, 'Convergence and the World Trade Organization', *Info*, Vol 1, No 2, April 1999, p 159.

Japan had maintained its industrial policy in the field of consumer electronics and was still a leader here, while the United States, with the likes of Intel and AMD, continued to dominate in micro-computing. The industry in Europe (both the 'media' and content sectors) was seeking direction, a task made all the more tricky by the content owners, who were still in the main American (studios and major companies), and had a decisive say in whatever it did. It is

true that the European Community had sought to make the content industry in Europe more competitive by laying the foundations for a system of regulation. Aimed at achieving freedom of expression, pluralism, consumer protection and cultural and linguistic diversity,<sup>34</sup> the EC system respected a number of key principles. These included proportionality, recognition of the public service role, and self-regulation as an effective adjunct to government regulation – or, indeed, independent national regulatory bodies.<sup>35</sup>

But it had been apparent for several years that the territory covered by this system was too narrow. From the late 1980s onwards, in response to European Union requirements, Poland, the Czech Republic and Hungary had introduced broadcasting quota systems under national legislation, but swiftly made them more flexible so as to reflect the OECD's Code of Liberalization of Current Invisible Operations. Romania finally gave in to American pressure by refusing to incorporate the 'Television Without Frontiers' directive into its national legislation. A consensus was emerging in favour of a Europe-wide policy (the fourth type of convergence: public policy).<sup>36</sup>

### *The phenomenon of 'Napsterization' in the European industry*

It was under intellectual property law and in the name of copyright that Judge Patel delivered her decision in the 2000 Napster case. Its prohibition on the development of content-sharing techniques is still rocking the content industry around the world. In the United States the latest rumblings surround the awaited Supreme Court ruling, which could well mirror that in the Sony case some years earlier, vindicating the sharing lobby over those talking in terms of 'piracy'. In the meantime, industrial strategies (based on agreements) and legal practices (based on compulsory licensing) have evolved, and their effect has been to temper the impact of technological progress and changing consumer habits. For a time, the European industry believed itself to be secure from the consequences of the Napster case – until in 2005 it suddenly realized that it, in turn, was threatened by a veritable epidemic of 'Napsterization', prompting in-depth reform of its organizational and commercial practices. The main stages of 'Napsterization' in Europe unfolded as follows (see Figure 7):

The number of sharing sites in Europe multiplied, as it had in America, in line with advances in digital compression. First music, then video games and films began to be shared in a wave of copyright 'pillage' that hit the European content industry and the collective rights-management bodies. Of course, European copyright owners systematically sought to defend their rights, and national courts, delivering decisions under urgent procedure, generally found in their favour. They were able to base their claims on existing legislation giving authors, as the creators of intellectual works, exclusive and legally defensible rights of intangible ownership over them.<sup>37</sup> Those rights were all the more strongly entrenched, in that many national legal systems in Europe, unlike that of the USA, defined them as comprising both a moral right and pecuniary rights.

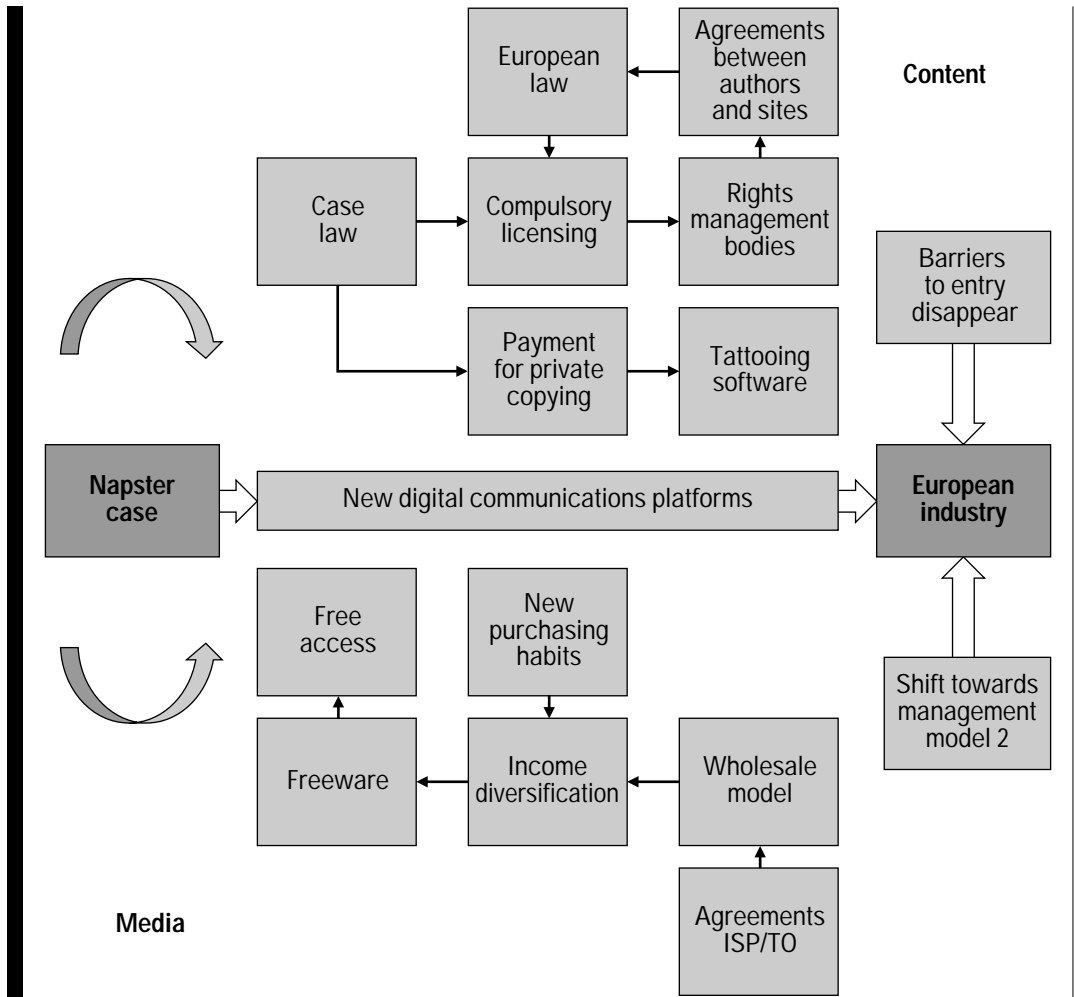
34. The notion of *cultural diversity*, embracing linguistic diversity, was wisely introduced in the late 1990s in place of the concept of a *cultural exception*.

35. See Conclusions of the Council and of the representatives of the governments of the member states, meeting within the Council on 26 June 2000 (reference as above), recital 10.

36. For an overview of the industrial policy developments described above see the author's contribution to *Lamy Droit de l'Informatique et des réseaux: informatique, multimédia, réseaux, Internet*, Lamy SA, Paris, 2000 ([www.lamy.fr](http://www.lamy.fr)).

37. Under the French Intellectual Property Code, 'le droit de propriété incorporelle exclusif et opposable à tous de l'auteur d'une œuvre de l'esprit sur cette œuvre (...) du seul fait de sa création'.

Figure 7: The phenomom of Napsterisation.



The former – non-transferable, inalienable and not subject to limitation – not only secured recognition for authors as creators of their work but required that works be respected, and gave their authors rights of divulgence, repentance and retraction. The latter – transferable and of limited duration (normally 70 years following the author's death) – included rights of reproduction, public representation, translation, adaptation and arrangement. The right of representation traditionally included television broadcasting by means of all telecommunication processes for the transmission of sound, pictures, text, data and messages of all types.<sup>38</sup> The right of reproduction was defined in general terms and concerned the material fixation of the work by any process that allowed it to be communicated indirectly to the public.<sup>39</sup> The argument in the courts focused on interpretation of the legal terms in which these rights were expressed, and particularly on whether the opening to the public of a sharing site that enabled individuals to offer one another access to sound or

38. According to the French Post and Telecommunications Code, 'par tous procédés de télécommunication de sons, d'images, de documents, de données et de message de toute nature'.

39. Under the French Code, 'la fixation matérielle de l'œuvre par tous procédés qui permettent de la communiquer au public d'une manière indirecte'.

audiovisual recordings or games programmes constituted the communication of those works to the public. Decisions in the first cases were contradictory: some national courts equated such practices with private use, which is in principle authorized, but most found in favour of the authors (upholding the counterfeiting argument).

The authors' success masked a shift in European law, which, since the early 1970s, while extending the scope of intellectual property rights (to cover software and databases) had gradually eroded their cutting edge by significantly reducing the substance of copyright.<sup>40</sup> For example, the principle of exhaustion of the right of distribution (the right to place goods on the market)<sup>41</sup> was based on case law of the Court of Justice of the European Communities. This court could not accept as an enduring principle that the first sale by an author, or with the author's explicit consent, of a copy of a protected work on the territory of a member state of the European Community or a party to the European Economic Area agreement, did not exhaust the right to market such a copy in all the other member states.<sup>42</sup>

At a general level, the Commission Green Paper on Copyright and Related Rights in the Information Society<sup>43</sup> opened debate about the retention of overly restrictive rules and the need to adapt them to the requirements of the information society (including questions of digital transmission and digital broadcasting rights). In the proposal for a directive<sup>44</sup> these concerns were translated into provisions for a wider definition of the right of reproduction,<sup>45</sup> 'to adequately respond to economic realities such as new forms of exploitation'.<sup>46</sup> This regulatory shift tended to weaken the position of copyright owners and was all the more significant in that the system of exclusive copyright clashed, in an insufficiently harmonized legal context, with the principles of equal treatment and freedom of establishment in European territory.<sup>47</sup> It conflicted even more directly with competition regulations, which were at odds with the monopoly established under the copyright system in the interests of authors of protected works.<sup>48</sup>

### Practical steps

By 2005, the idea of a legal mechanism whereby copyright owners would be compensated for the making of private digital copies until such time as an effective technical means was developed to protect their works fully and enable them to exercise an exclusive right, had attracted interest for quite some time. The technical solutions themselves (e.g. the Secure Digital Music Initiative and tattooing software) had demonstrated their limitations. There were major question marks over not just their intrinsic effectiveness but also their sustainability: they had turned out to be very costly, and the protection they offered was always temporary and uncertain, because technology had proved able to undo its own achievements.

Governments – acting largely at the instigation of the collective copyright-management bodies and in line with the approach of both WIPO<sup>49</sup> and the European Union –

40. The reply by a French Minister to a parliamentary question about the problem of CD and game-software piracy (Ministerial reply No. 34077, *JOANQ*, 8 November 1999, p 6418) is an indication of thinking on the matter at the turn of the century. The Minister, well aware of the reality and extent of the problem, made the following point: 'France now has a system of penal law and regulations providing a high level of protection of literary and artistic property, the application of which depends on rights holders, the associations that collect and distribute copyright fees, and the professional bodies empowered to identify when the law has been breached.'

41. This does not, however, apply to on-line services.

42. See, in particular, the case of *Deutsche Grammophon v. Metro*, ECR 487.

43. COM (95) 382 final. The Commission followed this document up on 15 October 1998 with a Green Paper on Counterfeiting and Piracy (COM (98) 0569 final), which was published, along with reaction to it, in June 1999.

44. Document 597PC0628. The terms of this proposal for a directive were close to those of Council Directive 93/83/EEC of 27 September 1993 on the co-ordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission, OJ No. L 248, 6 October 1993, p 15.

45. Article 5 permits, for example, 'reproductions on audio, visual or audiovisual analogue recording media made by a natural person for private and strictly personal use and for non-commercial ends'.

46. Recitals 21 *et seq.* cover the grounds for the system of exceptions under Article 5 of the Directive.

47. See, for example, CJCE, 20 October 1993, D. 1995, jur., p 133, note B. Edelmann.

48. As they are with all other exclusive privileges granted to operators or obtained by them because they dominate particular markets. See the author's study, 'Competing for the Internet: Reciprocal Access, Interconnection Agreement and Economic Control of Backbones', *Euro CPR Conference Review*, issue 43, ENCIP, Venice, March 1999, reproduced in *Telecommunications & Space Journal* (annual edition), SERDI, France, Vol. 6-1999.

49. The WIPO Diplomatic Conference led to the adoption in Geneva in 1996 of two new treaties: the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty.

very quickly decided to promote the lawful acquisition of protected works under general agreements providing for the individual management of copyright and a one-stop system of obtaining licences on-line. These initiatives firmly established the superiority of the mechanisms for collective copyright management and set them on a course of harmonization at European level. This followed the model of the International Confederation of Societies of Authors and Composers (ICSAC), through a joint information system allowing the integration of data concerning works, the interconnection of all the relevant organizations' databases and the introduction of automated licence-management procedures.

The scope of these initiatives remained, however, limited. Very early in the 21st century consumers began to develop new habits based on the fact that so much in the internet economy was free.<sup>50</sup> The boundary between ownership and use had become blurred and the reflex to purchase less automatic. Traditional intermediaries had been replaced by new forms of mediation that changed the relationship between consumer and content.

This trend was significantly encouraged by the fact that access providers had diversified their sources of income and systems of financing. As advertising agencies shifted *en masse* towards internet advertising, access providers were solving the problem of local communications charges (an issue particular to Europe, where one of the features of regulatory systems was over-regulation of the local loop), by concluding new types of contract with telecommunications operators. The retail model of services, in which a direct connection was established and the only type of payment was the connection charge, was being replaced by a wholesale model. Because this was based on indirect connection, access providers received a fixed percentage, which had become their main income.

At the same time, in response to the increasing availability and use of freeware (such as the Linux operating system), new commercial practices were emerging:

- Shareware enabled users to try before they bought;
- public beta versions made new software available free for a limited period of time;
- the dual track system was based on a strategy of capturing potential clients who went on to become established clients;
- open-source software offered access to source code; and
- 'copylefting' offered the possibility of altering source code.

Companies were being set up not to make money from software for which they held the patents, but to guide users to the cheapest and most accessible sources of the products they wanted. Shop bots (e.g. Bargain Finder), bidding services (e.g. Price Line and Nextag), auctions (e.g. Freemarkets) and, indeed, meta-auctions (e.g. E-Bay) were all examples of this type of practice.<sup>51</sup>

Of the two management models described earlier, only the second could survive. Proprietary systems were encountering the problem of rapidly declining standards in a highly innovative economic environment that required ever-increasing investment by operators. Moreover, such systems conflicted with the rules of competition, which national regulatory bodies and courts (especially as they were supported by public opinion) had tended to apply

50. Around the beginning of the 21st century it was estimated that 'free' web sites accounted for some 86% of the total, 'commercial' sites representing around 14% (Michel Gensollen, 'La création de valeur sur internet', *Réseaux*, November 1999).

51. For information on these practices and their impact on the new economy, see J. Bradford DeLong and A. Michael Fromkin, *Speculative Microeconomics for Tomorrow's Economy*, November 1999 (available on-line from <http://econ161.berkeley.edu/OpEd/virtual/technet/spmicro.html>).

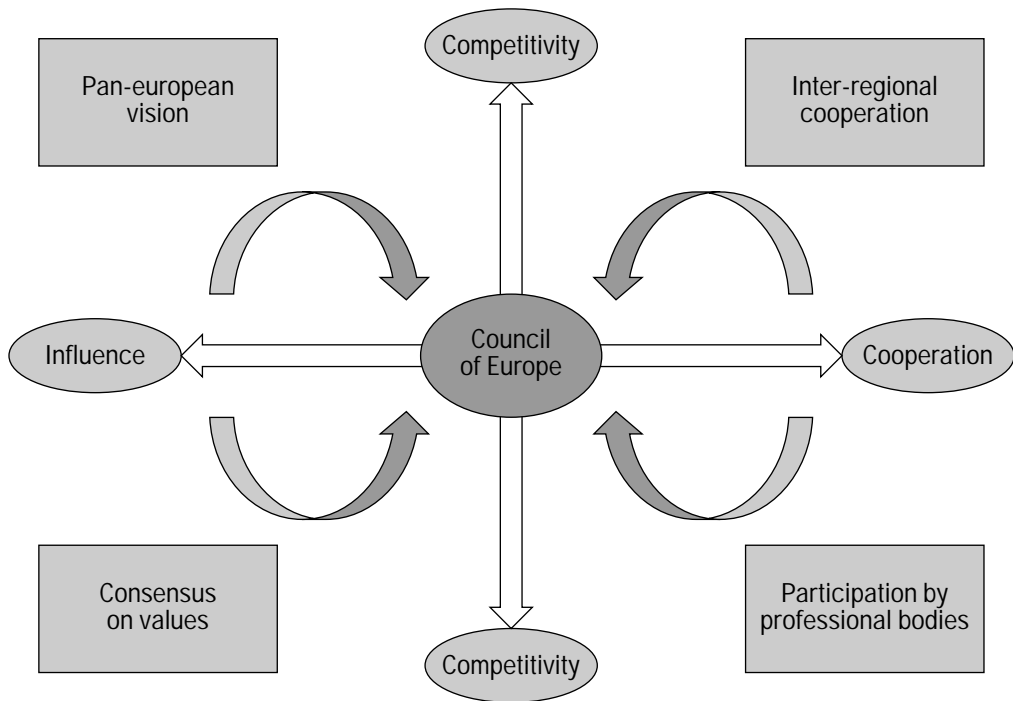
rigorously. They came to grief in an alarming bidding war for broadcasting and marketing rights, especially retransmission rights for sporting events, which ended up being prohibitively expensive. Now the dominant model was that of open or semi-open systems. For all their immediate advantages, such systems threatened to leave the European content industry dangerously exposed, suffering the effects of convergence rather than taking the reins. The factors to blame here were not just the length of time it had taken to create a truly European market but also the retention of redundant legal compartmentalization between and within European states, and the absence of a policy that transcended the restrictive context of the European Union.

### *Towards a European content industries policy*

In 2005 (see Figure 8) the Council of Europe's Parliamentary Assembly took the initiative of making a recommendation to the Committee of Ministers under Article 22 of the Council's Statute. The Assembly recommended that the Committee of Ministers take all necessary steps and measures in the joint pursuit of the following aims:

- to carry out all additional research required into the legal and regulatory impact of the digitization of telecommunications networks, communication systems and reception terminals, taking particular account of the introduction of experimental digital communications platforms; this research should include analysing the legal implications of the development of digital compression standards such as MP3 and MPEG4;
- to devise and promote appropriate and legally harmonized measures that would make European content industries more competitive in the digital era and be fully consistent with European Union initiatives;
- to further, in this context, initiatives aimed at securing the observance of fundamental freedoms, in particular freedom of expression, under Article 10 of the European Convention on Human Rights, which presupposes respect for pluralism and efforts to combat the threat of economic and industrial concentration; and measures designed to ensure that new information and communications technology in the digital era made the fullest possible contribution to economic and social progress;
- to support measures and initiatives aimed at encouraging co-operation and the exchange of information between the member states concerning the impact of digitization and the resulting process of convergence in relation to the European Convention on Transfrontier Television;
- to safeguard Europe's cultural influence, while honouring its international commitments and co-operating fully with the institutions of the European Union, and to engage in the international promotion of linguistic and cultural diversity in the new digital environment; and
- to pay close attention to issues concerning access to content, in order to ensure that intellectual property law is observed, and to co-operate closely to this end with the relevant representative organizations and collective copyright-management bodies.

Within a short time, the Committee of Ministers approved the recommendation and agreed to implement it. A European content industry began to be established on an appropriate legal and geographical basis, ensuring the defence of its interests as digitization flourished, and encouraging its digital communications platforms to be increasingly competitive internationally.

**Figure 8:** Towards a pan-european policy.

## Conclusions

The main lesson to be drawn from the research presented concerns the difficulty of maintaining restrictive rules in an economy of exchange where the goods are immaterial, the market has become global and a process of convergence is at work. The effects of this convergence are incompatible with the retention of specific applications for communications infrastructure and services. Forms of protection based on a system of intellectual property not only fail to function as a stimulus to innovation – their *raison d'être* in an economy where the goods exchanged are material – but are, in fact, fast becoming obstacles to the free flow of exchange, and are particularly difficult to maintain in a context of unfettered capitalism.

Also being called into question is the whole economic concept of a system run on the basis of captive, fragmented markets, proprietary-network strategies, a proliferation of intermediaries, the erection of barriers to entry, and investment in content. In the 'new economy', appropriate rules and legal techniques must be worked out (and this paper examines the form they may take and their impact), in order to protect the European content industry from international competition. This is all the more threatening to its growth when Europe's content industries are financially under-developed by comparison with those of the USA. The shortfall can be attributed to a whole range of factors: the length of time taken to create a truly

European market; the retention of redundant legal compartmentalization between and within European states; the existence of language and cultural barriers; and the absence of a public policy that looks beyond the presently restrictive context of the European Union.

The conclusion to be drawn is that we need forceful action, which can only be taken on a broader European basis. The Council of Europe – whose legitimacy and specific policy approaches for the content industry are discussed here – might well provide such a basis, enlarging and extending the initiatives taken by the relevant European Union institutions.