Editorial

The idea behind this new international supplement – "MR-Int" – is to provide a platform for the presentation and discussion of international legal questions, case law and policies in the areas of media, telecoms, IP and IT law for the authors and the readership of Medien und Recht. European Community Law is more and more becoming part of our daily business – particularly for those lawyers who work in the areas of "multimedia law". Because of the strong influence of the EU statutory instruments and the case law of the Court of Justice of the European Communities on national law practice this journal focuses on Europe, but keeps in mind that due to globalization the legal approach cannot be confined within the boundaries of the European Union, as the articles in this issue demonstrate.

Oliver Sitar analyses the EU Microsoft decision and gives insight into the impacts of competition law on the software markets. The articles by Strasser, Fallenböck and Pühringer have one topic in common: the challenge of copyright in confrontation with the Internet specifically pertaining to peer-to-peer music exchange, hyperlinks and Digital Rights Management.

With the recent widening of the EU it has become a matter of course to encompass the law of the Eastern European countries and monitor the transposition of EU law in these countries, as well as to receive their input regarding this issue. Gabor Faludi and Péter Gyertánfy show how Hungary has found its own way to incorporate EU copyright law into their highly developed national IP framework. Trademark law is an important matter for the new EU countries as is demonstrated in the article on Slovenia by Georg Kresbach and Markus Bruckmüller.

We hope you find this edition to be a useful supplement to Medien und Recht and enjoy reading it. The next issue of the "MR-Int" is scheduled to appear together with issue 5/04 of Medien und Recht in November 2004. We would welcome your comments and would be interested in your contributions – please feel free to contact me by E-mail h.wittmann@medien-recht.com or by telephone 0043-1-505 27 66.

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Contents

The EU Microsoft Decision:

Preserving Interoperability, Access and Free Choice in Software Markets

Oliver Sitar

1. Introduction

On March 24, 2004, the European Commission adopted the Commission Decision C(2004)900 final in case COMP/C-3/37.792 under Council Regulation 17/1962.[1] The Commission found that Microsoft had abused its dominant position in PC operating systems in violation of Article 82 of the Treaty.

The Decision marks the end of a five year investigation, which was originated by a complaint by Sun Microsystems, one of Microsoft's competitors in the server software markets, at the end of 1998. The complaint centred on a refusal to supply information needed for interoperability with Microsoft's dominant Windows PC operating system. In parallel, in February 2000, the Commission had launched an investigation on its own initiative, which focused, in particular, on Microsoft's incorporation of Windows Media Player (WMP) into its Windows PC operating system (the two procedures were merged under case number 37.792 in August 2001). Before adopting the Decision, the Commission had sent Microsoft three statements of objections for comments.

Microsoft has filed an appeal against the Decision with the Court of First Instance on 7 June 2004. The case has been given the number T-201/04. On 25 June 2004, Microsoft has filed a separate request to suspend the application of the Decision pending the outcome of the main action.

2. Substance

In the Decision, the Commission states that (i) Microsoft's refusal to provide interoperability information necessary for competitors to be able to compete effectively in the work group server operating system market and (ii) Microsoft's tie-in of Windows Media Player (WMP) with the Windows PC operating system constitute infringements of the prohibition to abuse a dominant position as enshrined in Article 82 of the Treaty. Microsoft is ordered to cease and desist from the conduct found to be unlawful. In addition, the Decision imposes a fine of € 497.196 million.

2.1. Dominance

The Commission's liability findings rest on a determination of Microsoft's exceptional dominance in the PC operating system market. PC operating systems constitute the software that control the basic functions of a PC and enable the user to make use of such a computer and run application programmes ("applications"), such as a word processor, on it. Microsoft's market share in this market is between 90 and 95%, and it has enjoyed these high market shares for many years.

Network effects characterise this market and insulate Microsoft's dominance from competition: the main benefits that consumers derive from a given PC operating system relate to the number and variety of applications that the operating system supports. Applications that are written to Windows, e.g., Microsoft Word, will not run on other operating systems. Software developers who write applications with limited resources tend to focus on the operating system that enables them to reach the greatest number of users. There is, therefore, a mutually reinforcing effect: the higher the number of users of a given operating system, the greater the number of application programmes that application developers write for that "platform" and vice versa.

Due to the ubiquity that Microsoft has achieved on the PC operating system market, virtually all commercial applications are written first and foremost to Windows. The existence and the effect of the network effects have also been discussed in the US case involving Microsoft.[2]

2.2. Refusal to supply

Microsoft's abuse with regard to interoperability consists in leveraging its PC operating system dominance onto the work group server operating system market through withholding vital interface information contained in the Windows PC operating system.

It is noteworthy that the settlement provisions included in the US Final Judgment, which transcend the scope of the plaintiffs' charges, address interoperability between PCs and servers. However, that judgment does not order that use of the disclosed information may be made for server-to-server interoperability and Microsoft has explicitly excluded such use. Server-to-server interoperability is covered by the Decision: the interoperability information to be disclosed relates to the organisation of Windows work group networks, which are based on an architecture of interrelated PC-to-server and server-to-server connections. The Decision acknowledges that for full interoperability with the PC to be achieved, server-to-server connections are indispensable.

The Decision identifies a relevant product market for work group server operating systems. These are operating systems which are designed and marketed to deliver to PC users the core tasks of file and print sharing and group and user administration within a corporate/administrative network. The Commission found that these operating

Mag. Oliver Sitar, Administrator, Directorate General for Competition, European Commission. The views expressed are not necessarily those of the Commission.

1 http://europa.eu.int/comm/competition/antitrust/cases/index/by_nr_75.html#i37_792.

2 Findings of Facts of 5 November 1999, United States District Court for the District of Columbia, USA v. Microsoft, Civil Action No. 98-1232 and 1232 (TPJ).

systems are generally installed on cheaper servers. By definition, interoperability with PCs is an essential characteristic of work group servers.

Work group server operating systems fulfil a demand different from other server operating systems such as (i) higher-level operating systems, which support mission-critical applications (e.g., airline reservation systems) or (ii) "edge" server operating systems, such as firewall or web server operating systems. Supply side substitution from other markets does not represent an appreciable competitive constraint in the market for work group server operating systems. The Decision also identifies significant barriers to entry in the work group server operating system market, in particular due to the presence of network effects similar to those which pervade in the PC operating system market.

The Decision, while acknowledging that, as a rule, companies are free to choose whether or not to enter into business relationships, refers to the case law on refusals to supply (Bronner[3], Magill[4], Commercial Solvents[5]) which makes clear that under exceptional circumstances a duty to deal may arise. In the case at hand, exceptional circumstances exist that engender a duty to deal, i.e., that Microsoft supply the relevant information.

One of the exceptional circumstances relates to the above-mentioned overwhelming dominant position of Microsoft in the PC operating system market, where Microsoft enjoys a near-monopoly position. It is the inevitable trading partner for all the major PC manufacturers like Dell, IBM and Hewlett Packard.

A direct corollary of this dominance is that Microsoft's refusal risks eliminating competition in the work group server operating system market. This is borne out by the evolution of Microsoft's position in that market; Microsoft has actually already attained a dominant position and its market share continues to grow. Evidence from customers is presented which shows that the "interoperability advantage" that Microsoft enjoys due to its refusal to supply drives customers towards Microsoft's work group server operating systems. The Decision establishes that access to the interoperability information is indispensable to compete viably in the work group server operating system market.

Another important aspect noted in the Decision is the fact that Microsoft used to supply similar information to work group server operating system vendors (through disclosure to AT&T), at a time when it lacked traction in the work group server operating system market; with the advent of Windows 2000, Microsoft ceased to supply equivalent information.

Third, Microsoft's refusal limits technical development in the impacted market to the prejudice of consumers. If competitors were to have access to the withheld interoperability information, they would be able to provide new and enhanced products to the consumer.

Microsoft claims intellectual property rights over the interface information and that it was therefore within its discretion whether or not to license this information. Microsoft's intellectual property rights defence cannot eo ipso render Article 82 of the Treaty inapplicable. The case law of the ECJ (Magill, and most recently, IMS Health[6] makes clear that it is precisely in the presence of exceptional circumstances that competition concerns may in specific cases outweigh intellectual property related considerations.[7] The Decision rejects Microsoft's claim that in the case at hand those exceptional circumstances are not present.

However, the Decision does not dismiss Microsoft's intellectual property based justification a limine but addresses the impact of a supply order on Microsoft's incentives to innovate. In this regard, the Decision emphasises inter alia that an order to supply the relevant information will not lead to copying of Microsoft's product, not least because the interoperability information relates to interface specifications and not to the source code of Windows. Moreover, the Decision points out that disclosure of interoperability information is commonplace in the industry. Finally, the Software Directive[8] is considered, in which a balance is struck between interoperability and copyright in restricting in specific circumstances the exercise of copyright over software (including exercise by non-dominant undertakings) in favour of interoperability, thereby stressing the importance of interoperability in the software industry in order to ensure (follow-on) innovation.

The Decision concludes that Microsoft's refusal to supply amounts to an abuse of a dominant position contrary to Article 82 of the Treaty.

2.3. Tying

The Decision establishes that Microsoft's tying abuse consists in leveraging its PC operating system dominance onto the market for streaming media player application software. The way Microsoft does this is through distributing its Windows PC operating system (the "tying" product) only together with Windows Media Player (WMP).

The Decision relies on the notion that anticompetitive tying prohibited pursuant to Article 82 of the Treaty presupposes the presence of the following elements: (i) the undertaking concerned is dominant in the tying product market; (ii) the tying and tied goods are two separate products; (iii) the undertaking concerned affords consumers no choice to source the tying product without the tied product; and (iv) tying forecloses competition. In addition, whether there is any objective justification for the tying must be examined.

Dominance has been discussed above. As regards the distinctness of the products, the Decision concludes

3 Judgment of the ECJ of 26 November 1998 in Case C-7/97, Bronner [1998] ECR I-7791.

4 Judgment of the ECJ of 6 April 1995 in Joined Cases C-241/91 P and C-242/91 P, Magill, [1995] ECR I-743.

5 Judgment of the ECJ of 6 March 1974, Commercial Solvents, Joined Cases 6 and 7-73, [1974] ECR page 223.

6 Judgment of the ECJ of 29 April 2004, C-418/01, IMS Health, not yet reported.

7 See also US Court of Appeals: "The company claims an absolute and unfettered right to use its intellectual property as it wishes: „[I]f intellectual property rights have been lawfully acquired," it says, then „their subsequent exercise cannot give rise to antitrust liability." […]. That is no more correct than the proposition that use of one's personal property, such as a baseball bat, cannot give rise to tort liability." (Judgment of 28 June 2001, United States Court of Appeals for the District of Columbia Circuit, USA v. Microsoft, No. 00-5212)

8 Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (OJ L 122, 17.5.1991, p. 42)

that PC operating systems and streaming media players are separate products. While an operating system controls the basic functions of a PC and enables the user to run application programmes, a media player is an example of just such an application programme. It is noted that the support of file formats, encoding/decoding algorithms and digital rights management technologies in media players is of significant commercial importance for several related business areas, of which the online distribution of music is just one example.

The Decision highlights (i) that although Microsoft has been tying its media player with Windows for some time, there remains today separate consumer demand for stand-alone media players, distinguishable from demand for PC operating systems; (ii) that a number of vendors develop and supply media players on a stand-alone basis, which is an indication of separate consumer demand (see Hilti[9]); and (iii) that Microsoft itself develops and distributes versions of its Windows Media Player (WMP) for e.g., the Apple Macintosh.

As regards coercion, it is established in the Decision that Microsoft does not afford consumers a choice to obtain Windows without Windows Media Player (WMP) (cf. Hilti, Tetra Pak II[10]); Windows Media Player (WMP) is always present on a Windows PC. Even though the icon can be hidden – a consequence of the US case – the media player itself cannot be removed and the code remains instantly accessible on a user's PC.[11] The issue of whether or not consumers are obliged to use Windows Media Player (WMP) with Windows is different to the question of whether they are obliged to obtain Windows Media Player (WMP) together with Windows. The latter is relevant for the existence of coercion while the former is relevant for the existence of harm to competition.

As concerns harm to competition, the Decision does not conclude per se that there is such harm but takes into account that PC users can and do obtain other media players (mainly through download over the Internet) and that these media players are often free.[12] In examining whether there is nonetheless harm to competition the Decision draws on a detailed analysis of the impact of Microsoft's behaviour, which includes an analysis of replies to requests for information sent to content providers, software developers and content owners. The Decision also draws on cases decided in the Community Courts concerning different types of exclusionary behaviour such as Hoffmann-La Roche, Michelin, Van den Bergh Foods and British Airways.[13]

The Decision outlines that the tying of Windows Media Player (WMP) with Windows affords Microsoft unmatched ubiquity on PCs world-wide as Windows Media Player (WMP) instantly shares the ubiquity of Windows in newly-shipped PCs. The Commission's analysis of the relevant evidence highlights that other distribution means (e.g., downloading over the Internet, bundling with other software or hardware, agreements with OEMs and the retail channel) are second best and cannot ensure similar dissemination.

This guarantees content providers, who encode music and videos for download by consumers, and software developers, who write application programmes that run on top of media players, that they will be able to reach almost all PC users world-wide if they use Microsoft's technology while supporting several technologies generates significant additional costs. Due to the fact that applications and content are specific to the technologies used, consumers will in turn prefer using Windows Media Player (WMP), since a wider array of complementary software and content will be available for that product. Again, network effects equivalent to those which characterise the PC operating system market are present; the existence of a wider number of applications and content shields the underlying "platform" software, in that case the media player.

By virtue of this, tying seriously undermines the competitive process in the media player market to the detriment of innovation and consumers. Further, it has ramifications on competition in related markets. For instance, it strengthens Microsoft's position in media encoding and management software (often server-side). Finally, it strengthens Microsoft's position in the PC operating system market itself as a popular and widely compatible media player may turn into a strategic application that a PC operating system vendor needs to offer to customers to be competitive (similar to the importance that consumers attach to an operating system / word processor's interoperability with documents written in Microsoft Word's format).

The foregoing analysis is supported by market data. The relevant data show a clear trend in favour of usage of Windows Media Player (WMP) and Windows Media formats, to the detriment of competitors' products. The Decision highlights that Microsoft's argument that its success was the result of competition on the merits was not supported by the available evidence, which, at the time of the adoption of the Decision, did not suggest that Windows Media Player (WMP) was the best media player.

9 Judgment of the CFI of 12 December 1991, Hilti, Case T-30/89, [1991] ECR p. II-1439.

10 Judgment of the ECJ of 14 November 1996 in Case C-333/94 P, Tetra Pak II, [1996] E.C.R. I-5951.

11 Note that in her memorandum opinion on the US Judgment, Judge Kollar-Kotelly stated that any order to provide for the removal of software code from Windows "would likely be reflected in the imposition of liability for illegal tying, rather than liability for illegal for [sic] monopoly maintenance". (Memorandum Opinion of 1 November 2002, United States District Court for the District of Columbia, United States of America v. Microsoft Corporation, Civil Action No.98-1232 (CKK), at footnote 23)

12 The per se test used by the US District Court for tying with platform software has been dismissed by the US Court of Appeals in the Internet Explorer context. The Court of Appeals ruled that tying in the case at issue should properly have been examined under the rule of reason. Hence, the Court of Appeals remanded that issue for evaluation by the District Court. However, the plaintiffs dropped their tying charge thereafter and the District Court had no opportunity to consider whether Microsoft's bundling of the Internet Explorer violated the prohibition of tying under § 1 of the Sherman Act under the rule of reason approach.

13 Judgment of the ECJ of 13 February 1979, Hoffmann-La Roche, Case 85/76, [1979] ECR p. 461. Judgment of the CFI of 30 September 2003, in Case T-203/01, Michelin, not yet reported. Judgment of the CFI of 23 October 2003 in Case T-65/98 Van den Bergh Foods, not yet reported. Judgment of the CFI of 17 December 2003, British Airways, T-219/99, not yet reported.

As to a possible justification for the tying of Windows Media Player (WMP), the Decision dismisses Microsoft's attempts of justification, in particular as the proffered efficiencies do not depend on Microsoft's tying of Windows Media Player (WMP); the claimed efficiencies would equally arise if a media player of consumers' choice was bundled at the stage of the PC manufacturers. As for Microsoft's argument that tying Windows Media Player (WMP) would be efficient as it provided a focal point for developers of complementary and compatible content and software, the Decision states that this argument is not legitimate under Community competition law as the behaviour concerned distorts the process of competition on the merits.

In light of the above, the Decision concludes that Microsoft's tying of Windows Media Player (WMP) with Windows violates Article 82, and in particular paragraph (d).

3. Remedies and Fines

As regards interoperability, the Decision orders Microsoft to disclose the information that it has refused to supply and allow its use for the development of interoperable products. The disclosure order is limited to interface specifications (not source code), and to ensuring interoperability with the essential features that define a typical work group network. It applies not only to Sun but to any undertaking that has an interest in developing products that constitute a competitive constraint to Microsoft's product in the work group server operating system market. In fact, many work group server operating system vendors expressed difficulties in building interoperable work group server solutions due to non-disclosure of interface information held by Microsoft. Microsoft is allowed to require a reasonable and non-discriminatory remuneration for the production of the documentation, as well as for the license of specific intellectual property rights.

As regards tying, the Decision orders Microsoft to provide a version of Windows which does not include Windows Media Player (WMP). PC manufacturers and consumers are thus left the choice to obtain Windows with the media player of their – not Microsoft's – choice. It is worth noting that the Commission does not prevent Microsoft from offering a bundled version of Windows including Windows Media Player (WMP), although the Decision makes clear that Microsoft must not circumvent the decision by engaging in technical or economic tying.

In order to enable the Commission efficiently to oversee Microsoft's compliance with the Decision, both on interoperability and tying, the Decision sets forth a monitoring regime.

The Music Reloaded:

A Discussion of Recent Court Cases Involving P2P Architectures

Mathias Strasser

1. Introduction

This article provides an update on the legal status of peer-to-peer ("P2P") network architectures. The debate goes back to Napster, a file sharing network created by a high school student in May 1999 that enabled users to exchange or "swap" music over the Internet. Napster was used almost exclusively for the unauthorized distribution of copyrighted music. Because its numerous users were spread over many jurisdictions, the only way the music industry could effectively protect itself against the massive copyright infringement that occurred on the network was by suing the company behind it, Napster, Inc. As readers of Medien + Recht will recall, the action against Napster culminated in an injunction that forced the company to shut down its systems.[1] Recently Napster's website has been revitalized by Roxio, Inc. as a fee-based online music distribution channel, which competes in an increasingly crowded field against Apple Computer, Inc.'s iTunes platform and similar services of other companies. Meanwhile, a number of P2P networks have stepped into the void left by Napster – most notably KaZaA – and although the music industry's lawsuits against individual file sharers appears to have had a chilling effect on the usage of these networks, many of them continue to enjoy a loyal following by users accustomed to free, unfettered downloading.[2]

From a legal perspective, P2P networks raise three questions: (1) Does the operation of a P2P network and its use for the purpose of sharing copyrighted material constitute copyright infringement; (2) is it possible to enforce copyright law against the providers of such networks and/or their users; and (3) may copyright owners resort to self-help to defend themselves against the unauthorized distribution of their works via P2P networks.

The legal debate to date has focused on (1). The question was first dealt with in Napster, and the court's decision in that case was viewed as an important victory for the music industry. However, as will become clear in this article, recent court decisions suggest that the legal status of the latest generation of P2P networks may be quite different from Napster's.[3] Space constraints make it impossible to spend much time on (2) and (3). Suffice it to say that although (2) is a technical, not a legal question, it has become extremely relevant since P2P network operators have shown a remarkable resourcefulness at frustrating the efforts of copyright holders to prevent large-scale infringement. Their tactics include (a) setting up nimble shell companies that can easily shift their systems to venues with favorable laws,[4] (b) deploying technologies which ensure that no one single entity has control over the network and that its users, who are the primary infringers, are spread over numerous jurisdictions, and (c) using encryption.[5] If it turns out that it is impracticable to enforce copyright law in the context of P2P networks or that the severity of the measures that would be required to do so makes it undesirable to afford copyright holders effective protection, (3) is likely to become more important.[6]

2. What Is a P2P network?

To put the remainder of the discussion in context, this section provides a very brief overview of what constitutes a P2P architecture. From a technical perspective, the distinctive feature of all P2P architectures is that each computer connected to a P2P network (called a node) has equal capa-

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1 A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004 (9th Cir. 2001). See *M. Strasser*, A&M Records v. Napster, Eine Analyse vor dem Hintergrund des amerikanischen Urheberrechts, MEDIEN + RECHT, 1/01, 6 (2001).

2 Reliable numbers are difficult to come by. In a recent survey conducted by the Pew Internet & American Life Project in February and March 2004 (see http://www.pewinternet.org /PPF/r/124/report_display.asp (visited June 1, 2004)), the number of respondents who said they download music files from the Internet was pegged at 23 million. About 33% said they use P2P services, compared with 17% who said they use pay-for-play websites.

3 See discussion below under 3.

4 After KaZaa B.V., the company behind one of the most popular P2P file sharing networks, was sued in the Netherlands, it transferred its service to an offshore company, Sharman Networks Ltd., and declared bankruptcy. Sharman Networks is a company headquartered in Australia and incorporated in the Pacific tax haven of Vanuatu. Vanuatu boasts, among other things, a "code of secrecy" that protects the confidentiality of ownership of companies based in that jurisdiction. Another P2P haven is Sealand, a tiny sovereign principality off the British coast with no intellectual property laws, which is home to, among others, HavenCo Limited, an Internet service provider.

5 The Freenet Project (http://freenet.sourceforge.net) is a well-known example of a P2P architecture whose inventors have taken encryption to the extreme but a number of other file sharing networks have adopted similar technologies. For a more detailed discussion of how these networks operate and their regulability, see *M. Strasser*, Beyond Napster: How the Law Might Respond to a Changing Internet Architecture, 28 N. KY. L. REV. 660 (2001).

6 Self-help is already an essential part of the music industry's strategy against the P2P file sharing phenomenon. In 2003, the Recording Industry Association of America (the "RIAA") started to sue users of P2P networks who it suspected of large-scale copyright infringement. See, e.g., *Nick Wingfield* & *Ethan Smith*, Record Industry Files Suit Against 261 Music Uploaders; Move May Alienate Customers, WALL ST. J., Sept. 9, 2003, at B1. In addition, there are rumors that the RIAA as well as individual record labels have begun to set up poisoned P2P networks offering bogus files under legitimate titles in the hope that casual users would get frustrated and give up trying to download music.

bilities and responsibilities. This distinguishes P2P architectures from client-server architectures, where some computers (the servers) are dedicated to serving others (the clients).[7] In a client-server architecture, such as the World Wide Web, all communications among clients are routed through a server. By contrast, in a P2P architecture, all computers (called peers) communicate with each other directly without relying on a central intermediary. From a legal perspective, this difference in design translates into a difference in regulability. Enforcing copyright law in a network modeled on client-server principles is relatively straightforward. Many jurisdictions permit courts to hold principals liable for their agents' actions. As a result, even though it may be impracticable to obtain effective relief from the primary infringers (i.e., the clients), it is generally possible to place oversight responsibility on the operator of the network (i.e., the server). It is exceedingly more difficult – both from a legal perspective and as a practical matter – to do the same in a P2P environment, which, by definition, has no center.

3. Recent Court Decisions Regarding P2P Architectures

3.1. A&M Records, Inc. v. Napster, Inc.

Because it forms the basis of later decisions, it is worth briefly recapitulating the facts and holding of A&M Records, Inc. v. Napster, Inc.,[8] which was the first high-profile case brought against a P2P network in the United States.[9] Although the district court's decision was appealed, the case never made it to the U.S. Supreme Court (and the same is true of all subsequent court cases involving P2P architectures). The plaintiffs in this case claimed that Napster's users were engaged in copyright infringement by sharing and exchanging music files in which the plaintiffs owned or administered the copyright and that, because the defendant assisted them with these activities, it was itself liable as a facilitator.

Having found that the Napster system was predominantly used to commit large-scale copyright infringement, the court examined the defendant's liability as a facilitator under two related doctrines known as contributory infringement and vicarious infringement (respondeat superior). Contributory liability holds a defendant liable for actions that assist others in committing copyright infringement. To be liable as a contributory infringer, a defendant must (1) know of the infringing activity, and (2) induce, cause or materially contribute to it.[10] Vicarious liability for copyright infringement attaches when a defendant (1) has the right and ability to supervise the infringer, and (2) receives a direct financial benefit from the infringer's actions.[11] With respect to contributory infringement, the district court found that the defendant's executives not only knew that Napster's users were engaged in infringing conduct but materially contributed to the infringing activities by maintaining an index that provided users with the names of all files available on the network and the location of the users who hosted them.[12] In regards to vicarious liability, the court noted that the operation of the index gave the defendant not only the right and ability to control its customers but potentially also provided it with a financial benefit, e.g., by permitting it to send targeted emails or generate advertising revenue.[13] As a result, the district court issued a preliminary injunction enjoining the defendant from engaging in or facilitating copyright infringement.[14] The appellate court vacated the injunction and instructed the district court to issue a more narrowly crafted remedy that required the defendant to prevent copyright infringement only when it received reasonable knowledge of specific infringing files and knew or should know that these files were made available on the Napster system.[15]

Although the modification of the injunction on appeal failed to save the defendant from liability, the reasoning behind the appellate court's decision is important because it set the stage for later court decisions, which, as we will see in a moment, took a more favorable view of P2P networks.

The appellate court's decision was informed by the "staple articles of commerce" doctrine, as formulated by the U.S. Supreme Court in its decision in Sony Corp. of America v. Universal City Studios, Inc.[16] Sony stands for the proposition that the sale by a manufacturer of a staple article of commerce (such as Sony's Betamax video tape recorder) that is capable of substantial noninfringing uses (such as "time-shifting", i.e., the practice of recording a television program for later viewing) does not render the manufacturer contributorily liable even though its customers may or, in fact, do, use the article to commit copyright infringement.[17] The Sony decision was motivated by

7 See, e.g., http://www.webopedia.com/TERM/p/peer_to_peer_architecture.html (visited June 1, 2004).

8 239 F.3d 1004. Copies of this and all other P2P court decisions referred to in this article can be obtained for free from http://www.lexisone.com (free registration required) [and are also available at http://www.mstrasser.net/law/p2p].

9 For a more detailed discussion, see *M. Strasser,* MEDIEN + RECHT, 1/01, 6.

10 See, e.g., Gershwin Publ'g Corp. v. Columbia Artists Management, Inc., 443 F.2d 1159, 1162 (2d Cir. 1971); Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259, 264 (9th Cir. 1996).

11 See, e.g., Pinkham v. Sara Lee Corp., 983 F.2d 824, 834 (8th Cir. 1992). Unlike in the context of the principal-agent relationship, vicarious liability in copyright law does not depend on whether the infringing conduct occurs within the scope of agency. See Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 308 (2d Cir. 1963).

12 See A & M Records, Inc. v. Napster, Inc.,114 F. Supp. 2d 896 at 920 (2000).

13 See 114 F. Supp. 2d at 922.

14 See 114 F. Supp. 2d at 927.

15 See 239 F.3d at 1027, 1029. The modified injunction was entered on March 5, 2001. See A&M Records, Inc. v. Napster, Inc., 2001 U.S. Dist. LEXIS 2186 (2001).

16 Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417 (1984). Although the staples articles of commerce doctrine is typically associated only with the contributory infringement doctrineh, the rationale behind it applies to the concept of vicarious liability as well. In fact, the supreme court's decision appears to treat both concepts interchangeably. See 464 U.S. at 435 and n. 17.

17 See Sony, 464 U.S. at 442.

the court's desire to establish a balance between the need for effective copyright law enforcement and the public interest in new technologies (such as, in 1984, video tape recorders).[18] At a more abstract level, the question faced by the court was how to incentivize and reward artists without extending their exclusive rights to include a monopoly over the technologies they rely on to disseminate and commercialize their works. The Napster case and all subsequent decisions involving P2P networks presented a similar dilemma as Sony, except that the technologies at issue in these cases were not video tape recorders but P2P architectures.[19]

It is interesting to see that each court faced with the question whether the operator of a P2P network should be liable for the actions of its users resolved the dilemma in a slightly different way. As we have seen, by emphasizing the defendant's central role in facilitating large-scale copyright infringement, the district court in Napster sided with copyright holders. The appellate court took a more balanced approach, stressing the fact that although the most prevalent use of Napster currently was to commit copyright infringement, P2P networks like Napster potentially also had substantial noninfringing uses.[20] Given this potential for noninfringing applications, the fact that Napster permitted users to exchange copyrighted material as such was not sufficient to hold the defendant liable. The public interest in preserving P2P networks as a potentially beneficial technology, however, did not shield the defendant from liability where it knew of specific instances of infringing files but failed to take action to purge them from the network.

3.2. In re Aimster Copyright Litigation

In re Aimster Copyright Litigation,[21] another U.S. case, dealt with a P2P network called Aimster, which functioned in substantially similar way as Napster and, accordingly, raised very similar legal questions. John A. Deep, the creator of Aimster, and two of his companies were sued by several record companies, music publishers and songwriters for contributory and vicarious copyright infringement. Like Napster, Aimster maintained a record of all files stored on the computers connected to the network and assisted users with the search for these files, yet the actual exchange occurred without its involvement. There were a few differences: Unlike Napster, which had operated a standalone network, Aimster piggybacked off America Online, Inc.'s instant-messaging service, AIM, and was available only to subscribers to that network. In addition, all files being exchanged among users were automatically encrypted prior to transmission. The district court ruled in the plaintiffs' favor and entered a preliminary injunction against the defendant, which was upheld on appeal.

Much of the reasoning in Aimster runs in parallel to Napster. In an attempt to differentiate the two cases, the defendants pointed out that because their network used encryption, they did not know the identity of their users or the content of particular files and therefore did not have the requisite knowledge to be held liable for contributory copyright infringement. The appellate court rejected this argument, however, noting that, although general or constructive knowledge of infringing material was not enough for a finding of contributory infringement, willful blindness did not exonerate an otherwise culpable party.[22]

In one critical aspect, however, the court diverted from the reasoning in Napster. In the court's view, actual knowledge of specific instances of copyright infringement was not a sufficient condition to hold the operator of a P2P network liable as a facilitator for misconduct of its users.[23] Consistent with the balancing test articulated in Sony, the court observed that, to support a holding of contributory infringement, a weighing of the relative magnitude of infringing versus non-infringing uses was required.[24] The court appreciated that instant messaging and P2P architectures were novel technologies that potentially had substantial noninfringing uses.[25] However, the burden to prove the existence of such uses was on the defendants, which had failed to provide any evidence that Aimster had ever been used for anything other than large-scale copyright infringement.[26] The court also noted that, even if the defendants had shown that Aimster had noninfringing uses, so long as the infringing uses were substantial, the defendants would have had to show that it would be disproportionately costly to eliminate or at least reduce substantially these uses.[27] Accordingly, the court held that the defendants were liable as contributory infringers.[28] The court was less confident that the plaintiffs would also prevail on the issue of vicarious liability but given its finding of contributory liability did not have to reach this question.[29]

3.3. MGM Studios, Inc. v. Grokster, Ltd.

MGM Studios v. Grokster, Ltd.[30] is the latest decision in the line of cases dealing with P2P architectures, and it is particularly interesting for several reasons. For one thing, the P2P networks at issue – FastTrack and Gnutella – the applications providing access to them – Kazaa, Grokster and Morpheus – are still widely used today. Second, the techno-

18 See 464 U.S. 417 at 430 et seq.

19 P2P network architectures are widely viewed as having substantial technological benefits. An open letter by technology executives in the United States stated that "[p]eer-to-peer technologies constitute a basic functionality of the computing environment today" and are "critical to further advances in [the U.S.] economy". See *John Borland,* Tech Execs: Hands off P2P (July 15, 2002), at http://news.com.com/2100-1023-943946.html.

20 See 239 F.3d at 1021.

21 In re Aimster Copyright Litig., 334 F.3d 643 (2003).

22 See 334 F.3d at 650.

23 See 334 F.3d at 649.

24 Id.

25 Among those cited by the court were the sharing and exchange of non-copyrighted music and the download of CDs with copyrighted music where the user already owns a copy. See 334 F.3d at 652.

26 Far from doing anything to promote a legitimate usage of their network, the defendants had provided users with a tutorial in which the only examples related to the sharing of copyrighted music.

27 See 334 F.3d at 653.

28 See 334 F.3d at 653.

29 See 334 F.3d at 654 et seq.

30 MGM Studios v. Grokster, Ltd., 259 F. Supp. 2d 1029 (2003).

logy powering these networks differs from the technology behind Napster and Aimster in a crucial aspect. While Napster and Aimster, although dubbed P2P networks, had retained some characteristics of client-server architectures by maintaining a central file index, FastTrack and Gnutella are pure P2P architectures in the sense that there is no center and that all searches for, and exchanges of, files are dealt with among the peers directly.[31] Thus, when a user of Gnutella initiates a search for a file, the search request is passed from one user to the next until a match is found or the request expires. As a result, no single node of the network is necessary for the network as a whole to function properly. FastTrack is based on the same protocol and thus functions similarly as Gnutella but extends its functionality by dynamically allocating to individual users' computers the role of "supernodes" to improve scalability. A supernode is a computer, usually with a fast Internet connection, that has a heightened function in the network. By indexing the files stored on neighboring nodes, supernodes make searches more efficient. Like Aimster, FastTrack also employs encryption.

The court first turned to the question whether two of the defendants, Grokster Ltd. and StreamCast Networks, Inc., which distributed the Grokster and Morpheus applications, were liable as facilitators under the doctrine of contributory copyright infringement.[32]

On the issue of knowledge, the evidence was similar to that in Napster and Aimster: the defendants had marketed themselves as the next Napster, internal documents showed that they knew that their networks were used to commit copyright infringement; and the plaintiffs had provided them with ample notice of examples where users had committed copyright infringement.[33] Moreover, it was undisputed that P2P networks had a number of noninfringing uses.[34]

Accordingly, consistent with Sony, the court required the plaintiffs to show that the defendants not only had general knowledge of the fact that users may engage, or indeed were engaged, in copyright infringement but that they knew of specific instances of infringing files and that they did so at a time when they had the ability to remove them from the network.[35] Therefore, the question whether the defendants had knowledge became part of the material contribution analysis: If the defendants had a material role in enabling users to exchange files over the network and were notified that specific files contained copyrighted music, they could be expected to take action to stop the infringement.

In Napster, this condition was satisfied: When users searched for files on the network, they had to check the central file index, which contained a list of the names of all available files and their location. Without Napster's support, users could not have found and downloaded the files they wanted. As explained above, FastTrack and Gnutella are based on completely different design principles. In the case of Gnutella, there is no central file index, and in the case of FastTrack, the indexing function is spread among a number of supernodes.[36] Pointing to this seminal distinction, the court emphasized that neither of the two defendants facilitated the exchange of files in the way Napster did.[37] While Napster had "perfect knowledge and complete control",[38] the opposite was true of Grokster and Morpheus: Users connected to the defendants' networks, conducted searches and downloaded files, all without a material involvement of the defendants.[39] The court stressed that, even if the defendants shut down all computers within their control, users could continue to share files with little or no interruption. As a result, it concluded that the defendants were similarly situated as companies like Sony that sell home video recorders. Accordingly, the court found that the defendants were not liable for contributory infringement.[40]

On the issue of vicarious liability, the court followed a similar reasoning. While it was clear that the defendants derived a financial benefit from the misconduct that occurred on their networks, they did not have the right and ability to sanction their users.[41]

Perhaps the most significant aspect of the court's decision is its discussion of filtering technologies. In trying to convince the court to impose vicarious liability on the defendants, the plaintiffs argued that the defendants should be deemed to have the ability to control their customers because they could change the design of their software to include filters. The plaintiffs' argument seemed promising because the defendants' software already included optional filters to screen pornographic and obscene file names, which showed that it was feasible to implement filters. Moreover, the fact that the Napster court had imposed a similar requirement meant there was a precedent for a decision that required P2P developers to use filters. However, the court rejected the analogy and pointed out that the obligation to "police" a network arose only where a network operator has the ability to control the network.[42]) Given the design of the Gnutella and FastTrack networks,

31 See 259 F. Supp. 2d at 1039.

32 The court offered no opinion on the liability of Kazaa B.V. or Sharman Networks Ltd. Kazaa, which developed the FastTrack technology, had transferred the operation of its systems to Sharman Networks, declared bankruptcy and ceased to defend the action. Sharman Networks, which is incorporated in a secretive tax haven in the Pacific (see note 4), was not a party to the motion.

33 See 259 F. Supp. 2d at 1036.

34 The court pointed specifically to the distribution of movie trailers, the exchange of non-copyrighted works (including government works and works for which the copyrights had expired, such as those available at http://www.prelinger.com), and the use of P2P networks for other purposes in countries where it was legal to do so.

35 See 259 F. Supp. 2d at 1037, 1038.

36 The court noted that, while Kazaa B.V. and Sharman Networks Ltd. appear to operate the primary supernodes of the FastTrack network, there was no evidence that Grokster, Inc. also operated a supernode. See 259 F. Supp. 2d at 1040, n. 7.

37 See 259 F. Supp. 2d at 1041.

38 259 F. Supp. 2d at 1041.

39 The only evidence that the plaintiffs had presented in support of their claim that the defendants were materially contributing to the copyright infringement were a handful of technical support emails.

40 See 259 F. Supp. 2d at 1043.

41 See 259 F. Supp. 2d at 1044 et seq.

42 See 259 F. Supp. 2d at 1045.

the defendants did not have this ability. In the words of the court, "[t]he doctrine of vicarious infringement does not contemplate liability based upon the fact that a product could be made such that it is less susceptible to unlawful use, where no control over the user of the product exists".[43] This aspect of the decision is particularly significant because, consistent with Sony, it places a limit on the ability of copyright holders to influence the design of P2P networks. If the court had sided with the plaintiffs on this issue, it potentially also would have opened other software developers to similar claims, which could have had a chilling effect on their willingness to develop new technologies.

3.4. Vereniging Buma/Stichting Stemra vs. Kazaa B.V.

Although the most high-profile actions against P2P network operators have been brought in the United States, it is worth briefly discussing a similar case that was recently decided in the Netherlands. The Netherlands owe their central role in the P2P debate to the fact that Kazaa B.V., the company whose founders developed the FastTrack network, was incorporated in the Netherlands before it transferred its technology to Sharman Networks Ltd.

In 2001, Kazaa B.V. was in the middle of negotiations with Vereniging Buma/Stichting Stemra, the Dutch collecting society, for a possible license that may have permitted Kazaa to stream copyrighted works to users of its network. Eventually, these discussions broke down and the matter ended up in court.[44] The complaint echoed the claims put forward in the U.S. cases discussed above. From a copyright law perspective, the central issue was whether Kazaa B.V. could be held responsible for infringements committed by users of its network. On November 29, 2001, the Amsterdam district court issued a decision in which it agreed with the plaintiffs and required the defendants to take steps to prevent further infringing activities by their customers. On March 28, 2002, however, the Amsterdam Court of Appeal reversed the lower court's decision, and on December 19, 2003, the Supreme Court of the Netherlands affirmed the reversal.

The supreme court's decision focused on procedural questions. More interesting is the appellate court's discussion of the facts. In the most significant part of the ruling, the court observed that the primary responsibility for complying with copyright law rests with the users of the Kazaa network, not its operators. The appellate court specifically rejected the district court's view that by giving others the opportunity to engage in copyright infringement, the Kazaa operators become responsible for the infringing activities. Pointing to similar considerations as those which informed the Grokster decision and related cases (although without referring to this or any of them), the court emphasized that merely providing the means for publication or reproduction of a copyrighted work is not itself an act of publication or reproduction. In addition, it stressed the fact that Kazaa is not exclusively used for the purpose of downloading copyrighted works. As a result, the court concluded there was no legal basis for holding the defendants liable.

4. Conclusion

As the Grokster court noted, "additional legislative guidance may be well-counseled" to resolve the legal issues surrounding P2P networks.[45] In putting the responsibility for striking the elusive balance between the public policy objective of incentivizing and rewarding artists with the legitimate goal of preserving the Internet as a space for innovation in the hands of the legislature, the court showed a remarkable understanding of the technological issues at stake and placed the debate where it belongs: in the court of public opinion. The policy decisions at hand are too fundamental as to be made by the judiciary on the basis of a handful of statutes that were originally drafted with Johannes Gutenberg's printing press in mind. Things are further complicated by the multi-jurisdictional nature of the problem: The opposite interests of content-producing and content-consuming countries and the special situation of niche jurisdictions such as Vanuatu and Sealand make a near-term resolution of the problem unlikely.[46] The good news is that the stalemate between law and technology may lead to a situation where the rules governing the distribution of content in the digital world will be shaped by the market: competition among software developers for the most efficient technology for disseminating content over the Internet and competition among artists and the organizations representing them for the most successful business model for commercializing works of art using these technologies. Given that some of the greatest content in human history was conceived at a time when copyright law did not exist or was much weaker than it is today, it is seems safe to predict that, however this battle will end, the public at large will benefit.

43 259 F. Supp. 2d at 1045-1046.

44 AN7253 case no. C02/186HR. [Dutch citation format to be confirmed.] The following discussion is based on an unofficial translation of the Dutch court decisions into English.

45 See 259 F. Supp. 2d at 1046.

46 See John Tehranian, All Rights Reserved? Reassessing Copyright and Patent Enforcement in the Digital Age, 72 U. CIN. L. REV. 45, 56 (2003).