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'Over to you': Can Europe restrain Microsoft's threat to freedom of musical expression in computer-mediated communication?[1]

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Abstract

The United States Supreme Court characterised the trend toward the convergence of the communication, music and computer worlds as 'a promising new medium that could empower citizens and promote democracy in the next millennium'. Yet inquiry into United States vs Microsoft, the case that may determine whether 'the free and open nature of . . . computer-assisted communication' will remain 'free and open' has been lacking. This study focuses on the antitrust and First Amendment implications of Microsoft's disputed strategy of marrying its Web browser to its operating system (OS) software.

The study argues that rulings on the legality of this strategy have ramifications for Microsoft's subsequent move to suture its streaming audio and video software to its OS product. Implications of this case – and the European Commission's similar inquiry into such suturing – for popular music as an industry, as an industrialised technology, and as a form of communication are discussed. Scholars, practitioners, and *fans must be ever mindful that when one firm dominates a human enterprise as central to contemporary life as personal computing, the opportunity for abuse exists.*

General introduction: love, music, money

I take, as well as love, popular music as a means of communication. US communication scholars interested in freedom of expression, at least those who, like me, are open to popular music, think of it as a form of expression, of speech.[2] Because I take this music in this way, I have considered how the economic actions of the recording industry shape the musical 'speech' it records and circulates in our culture. Over the past twenty-five years I have found that such economic constructs as *industrial market structure*, *concentration of ownership* and *barrier to entry* have helped me grasp how the economic actions of this industry shape the music it records and circulates.

Industrial market structure

Economists generally accept that there exist four types of industrial market structures; three that the present effort will invoke are:

(1) *Perfect competition*. Economist Edwin Mansfield (1979, p. 249) defines perfect competition as a type of seller market in which there are many sellers in a market who offer for sale a product that is 'the same as the product of any other seller'. Each seller is so 'small in relation to the entire market that [s/he] cannot affect the product's price'. Although most musicians who play popular music may think of themselves as unique unto her/himself (economically, as a monopoly), markets that employ such musicians are arguably more inclined to grasp such musicians as competitors: one band with no recording contract is more, rather than less, substitutable for another. More than any other factor, I have learned, it may well have been my rhythm-and-blues band's substitutability in my alma mater's fraternity house 'market' that accounted for the reluctance of any house to book us for more than one weekend at a time, even though we were asked back to play every house at which we 'gigged' at least once. The fraternity house 'buyers'' market, and especially the 'sellers'' market of bands that served it, were both competitive ones. If only I knew then what I know now.

(2) *Monopoly*. This is a type of industrial market structure in which 'there must be one, and only one, seller in a market' (p. 280). The trial court in *U.S. v. Microsoft Corp*. (2000) found that the defendant firm 'enjoys monopoly power in the . . . market . . . of all Intel-compatible PC operating systems' (pp. 7, 5; order inverted for the sake of quotation). Microsoft's share of this market 'exceeds ninety-five percent' (p. 5). By another measure the same court found that Microsoft 'control[s] the licensing of all Intel-compatible PC operating systems worldwide' (p. 36). Microsoft sells its operating system software, Windows, to computer manufacturers through licensing agreements. 'Control' of the worldwide Intel-compatible PC operating systems market has endowed Microsoft with a relatively rare advantage in the intensely competitive computer business: consistent ability to 'set the price of a license *substantially above* that which would be charged in a competitive market – and leave the price there for a significant period of time – without losing so many customers as to make the action unprofitable' (p. 36; emphasis added). US jurisprudence has measured monopoly power in no fewer than two ways: by the market share and the pricing of the putatively monopoly product. For popular music fans and players, Microsoft's monopoly in operating systems software has hardly been experienced as all negative. On the contrary, because 'the overwhelming majority of [personal computer] consumers . . . use a PC operating system for which there already exists a large and varied set of high-quality, full-featured applications, and for which it seems relatively certain that new types of applications and new versions of existing applications will continue to be marketed' (*U.S. v. Microsoft Corp*. [hereinafter, *U.S. v. Microsoft*], Findings of Fact [FF] 1999, ¶ 30), a worldwide network of Windows users has been spawned. This 'positive network effect' allows Windows users to 'share files easily with' others (¶ 39). Digitised audio files are merely one among several file types users may share. That its monopoly in operating systems [OS] software enables Microsoft to price 'one of the least expensive components of [any] PC system – the operating system – . . . substantially [higher] than [the firm] would be [able to] under competitive conditions' (¶ 25) has been less important to users than this 'positive network effect' that facilitates such file sharing as the US trial court describes. But the question before this court – and before the European Commission as well – has not focused on user satisfaction with file sharing. Rather these judicial bodies

have investigated whether the means of production of such satisfaction stem from lawful or unlawful conduct of a monopolist.

(3) *Oligopoly*. This is a type of industrial market structure 'characterised by a small number of firms and a great deal of interdependence, actual or perceived, among them' (p. 315). Over the last fifteen years, for instance, the ownership of major recording companies has concentrated into an oligopolistic industry characterised by a dwindling number of firms. PolyGram's purchase of Motown Records and Universal Music's subsequent purchase of PolyGram has effectively reduced the number of firms in the recording industry oligopoly to five. Thus, *ownership* of major recording companies may be said to have *concentrated* over the time span noted. As of the late 1990s, these five firms 'distribute[d] 95 percent of all recorded music found in [US] stores and [at least] 80 percent globally' (Alger 1998, p. 95). Several scholars contend that oligopolistic, as well as monopolistic, markets adversely affect freedom of expression. Film scholars Garth Jowett and James Linton (1989) show that the oligopolistic structure of the US-based film industry 'create[s] ''*barriers to entry*'' [that] limit the themes and treatments that can find their way to the screen' (p. 71; emphasis added; see also Bagdikian 1985). One of the barriers that constrains firms from entering both the film and the recording industries is called an 'absolute capital cost barrier to entry' (Stewart 2002). In order to join the recording industry as a major, a firm must be able to pay for, or capitalise, a national headquarters, an artists and repertoire staff, a marketing staff, a promotion staff and all the necessary clerks, phones and office equipment, lighting, heat, rent and real estate. Also factored into the costs of doing business as a major must be the costs of contracts with recording artists, legal fees, recording and disc-pressing costs, tour support and, above all, the costs of establishing, staffing, equipping and maintaining a national network of distribution centres – buildings that warehouse recordings, maintain sales records, etc. Such costs lie beyond what many companies and individuals are willing to pay. There are other sorts of entry barriers in communication industries. The case against Microsoft has examined several.

Introduction to U.S. v. Microsoft

Grasped holistically, *U.S. v. Microsoft* examined evidence alleging that Microsoft attempted to:

(1) maintain its Windows operating system (OS) monopoly illegally,
(2) use its Windows monopoly to dominate the market for Internet browsing software, and
(3) eliminate competitors by engaging in various illegal anticompetitive actions (*U.S. v. Microsoft Corp*. 2000, p. 2; The antitrust 1998, p. 1).

To elaborate point (1), 'monopolisation is not illegal, but the use of monopoly power is' (Check 1996). No court has found the Microsoft monopoly in the market for OS software illegal, although even the US Court of Appeals agreed with the trial court's finding that Microsoft's share of the OS software market 'exceeds ninety-five percent' (*U.S. v. Microsoft* 2000, p. 5). That this monopoly has helped popular music fans and players share digitised audio files (DAFs) has not been found unlawful, although such sharing has been (see *UMG Recordings v. MP3.com* 2000 and *A&M Records, Inc.* et al. *v. Napster, Inc.* 2001).

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Table. Three distinct personal computer markets.

Original equipment manufacturers	Operating systems makers	Browser software makers
IBM	MS-DOS	Internet Explorer (Microsoft)
Dell	Windows	Navigator (Netscape)
Compaq	O/S2	
Hewlett-Packard	Unix	
Apple	Mac OS9	
Sony	PRODOS	

Allegedly, Microsoft has attempted to: (1) *maintain* its Windows operating system software monopoly illegally; (2) use its Windows monopoly to dominate the market for *Internet browsing* software; and (3) eliminate competitors by engaging in various illegal anti-competitive actions (*U.S. v. Microsoft* 2000, p. 2). The Internet, according to the U.S. Supreme Court, is a 'free and open . . . promising new medium that could empower citizens and promote democracy in the next millenium' (*A.C.L.U. v. Reno* 1996).

Nevertheless, according to antitrust case law (*U.S. v. Griffith* 1948), no monopolist may lawfully 'use a monopoly in one field as leverage to gain a monopoly in another' (Check 1996). The use of one monopoly to attempt to gain another is a business practice called 'leveraging'. The United States Department of Justice and nineteen states charged that Microsoft leveraged its OS monopoly into a dominant position in the market for Internet browsers. Remarkably, a Microsoft executive used this very term in a 1997 memo that gauged the competitive position of Microsoft's browser, Internet Explorer, vis-à-vis Netscape's: It 'would be very hard to increase [Explorer's market] share', the executive wrote, 'on [its] merits . . . alone. It will be [best] to *leverage* the OS asset to make people use IE [Internet Explorer] instead of [Netscape] Navigator' (quoted in United States Department of Justice 1998A, p. 5; emphasis added).

In order to grasp the issues in this case and how they apply to popular music, it is necessary to conceive of the computing world as no fewer than three distinguishable markets. The Table divides the computing world into markets for:

(1) computer manufacturers, or, in the parlance used at trial, OEMs (Original Equipment Manufacturers),
(2) OS makers, and
(3) makers of browser software.

Today, several firms make the 'boxes' that house the OS software *and* browser applications that allow PC users to access the oceans of information and entertainment, including DAFs, that may be found on the Internet. Some of these OEMs are listed in the Table. Similarly, over the past twenty years, several firms had at one time or another manufactured OS software. Many readers may have begun their personal computing by using MS-DOS, Microsoft's early OS. The Redmond, WA, firm eventually developed the Windows OS, which remains the subject of the case under discussion. In the early 1990s, IBM devised the OS2 operating system; AT&T authored Unix, and Apple has developed such OSs as PRODOS and System 9. But the trial court 'found . . . that there are currently no products – and that there are not likely to be any

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in the near future – that a significant percentage of computer users worldwide could substitute for [Windows] without incurring substantial costs' (*U.S. v. Microsoft* 2000, p. 4). Microsoft's Windows overran its competitors.

If the Internet can be likened to all the text, sounds and images available over the broadcast airwaves, browser software can be likened to the channel selector that allows the user to access the text, sounds and images available from a particular supplier, or website. Browsers are not OSs, and neither browsers nor OSs can be properly construed as 'original equipment'. The first commercially successful *browser* application was developed by Netscape. But then Microsoft developed *its* browser.

Microsoft's Explorer vs Netscape's Navigator; moves to exclude

In October 1998, IE overtook Netscape's Navigator in browser market share (*Washington Post* 1998). But this achievement was not necessarily produced as a result of IE's superiority as a browser but, rather, this study argues, as a result of Microsoft's repeated violations of US antitrust laws. At trial a distinguished economics professor testified that 'Microsoft's internal documents make it clear that Microsoft undertook its browser development [less to improve Windows than] to *prevent* Netscape's browser from facilitating competition with Microsoft's monopoly operating system. This is the essence', he argued, 'of *predatory* monopoly maintenance' (Fisher 1999; p. 55; emphasis added). The trial revealed that Microsoft persuaded such business partners as OEMs to consent to 'exclusionary agreements'. These 'preclud[ed such business partners] from distributing, promoting, buying, or using products of Microsoft's competitors or potential competitors', such as Netscape. Such exclusionary agreements *prey* 'anticompetitive[ly]' on such actual or potential rivals, says US cable TV network Court Television (1999; see also Harris 1999; Stoll and Goldfein 1998). The trial court found that such agreements 'required' such business partners as Compaq, Apple, online services, such as AOL and independent software developers 'to promote and distribute [IE] to the . . . exclusion of Navigator' (*U.S. v. Microsoft* 2000, p. 35; see also *U.S. v. Microsoft*, FF 1999, p. 122).

Has Microsoft abridged freedom of expression?

To grasp claims Microsoft's practice of tying IE to Windows is unlawful, we need to survey a subcategory of antitrust cases the US government has prosecuted. These are tie-in sales cases. A tie-in sale is one in which a consumer can buy a particular product only by purchasing another as well (Carlton and Perloff 1994, p. 467). The Clinton Administration Department of Justice claimed that one way Microsoft leveraged its OS monopoly into other markets, such as the market for browsers, was through tie-in sales. Presently I shall analyse some of the legal precedents in tie-in prosecutions and then consider the economic and First Amendment effects of such tie-in deals Microsoft is alleged to have closed.

Survey of tie-in case law

Section 1 of the Sherman Act (1890) bans 'every contract, combination . . . or conspiracy, in restraint of trade' (§1). Courts have often treated tie-ins as a per se sec. 1 violation (see *Jefferson Parish Hospital District No. 2 v. Hyde* 1984 and *Northern Pacific*

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Railway Co. v. U.S. 1958). As a rule, if courts find that the products that are tied-in are distinct in nature and that the tie-in adversely affects trade, they are prone to view the tie-in as illegal, especially when large firms are involved (Walters 1993). Whether consumers like any given tie-in matters little in courts' analyses. The Microsoft case appears to satisfy both standards: the products under scrutiny are distinct in nature and the tie-in adversely affects trade.

A large firm, the International Salt Co., once required that its salt processing machines be used to process *its* salt only. It tried to justify its tie-in sale by arguing that the firm was only trying to assure the quality of its salt-processing machine (p. 273). But the High Court rejected the argument that the tie-in improved performance of the firm's machines. International Salt Co. salt was ruled as being neither better nor worse than salt that others sell. Similarly, Microsoft contends that it is just 'trying to innovate its [OS] product', Windows, by tying in IE to it (Chandrasekaran 1998B, p. 1; see also Stoll and Goldfein 1998). But the trial court questioned if Microsoft's browser tie-in was the sole means available to Microsoft to innovate Windows. In fact, Microsoft did not establish at trial that IE was so demonstrably superior to, say, Netscape Navigator that demand for the latter would cease if only Microsoft bundled IE with Windows: Microsoft *has* bundled IE with Windows for more than six years now. But demand for Navigator continues, even though Microsoft has neutralised Netscape as an effective competitor in the browser market (Mellers 2003).

Indeed, the trial court found that 'consumers today perceive operating systems and browsers as *separate* ''products'', for which there is *separate* demand' (*U.S. v. Microsoft* 2000, p. 30; emphasis added). What is more, the court concluded that 'Microsoft's bundling [of IE with Windows] stems from the fact that a competitor to [IE,] the tied product[,] bore the potential . . . to open up . . . the market [for] the tying product[, Windows,] to competition' (p. 34). Navigator, said the court, could have expanded into 'a substantial platform for applications development' (p. 10). As such, it not only competed with IE but, more pivotally, posed a direct threat to Microsoft's desktop OS monopoly. *The New York Times* noted that because application programs could have been written to run on Navigator (or on other browsers), the 'importance' of a desktop OS such as Windows to 'end users' would have been 'undermin[ed]' (Lohr 2002).

Thus, the Microsoft tie-in had the negative effect of lessening the competition in the already concentrated browser market. Combinations that lessen competition violate the Clayton Antitrust Act of 1914. They would even if consumers were willing to pay Microsoft *more* for its bundle than they would be willing to pay for buying a rival's browser that worked equally well with Windows. By driving Netscape, and perhaps foreclosing other competitors, from the browser market, Microsoft spawned a second monopoly (*U.S. v. Microsoft* 2000, p. 22). Freedom of choice among browsers is now effectively limited to the browser contained in more than ninety-five per cent of all new boxes and the overwhelming majority of existing ones. That browser is, of course, IE. The trial court 'conclude[d] that Microsoft's decision to offer only the bundled – ''integrated'' – version of Windows and Internet Explorer derived *not* from technical necessity or business efficiencies; rather, it was the result of a *deliberate and purposeful* choice *to quell incipient competition* before it reached truly minatory [threatening] proportions' (p. 33; emphasis added).

As the opinion that reaffirmed freedom of expression on the Internet insisted, 'At the heart of the First Amendment lies the principle that each person should decide for him or herself the ideas . . . deserving of expression' (*A.C.L.U. v. Reno* 1996). But, as the *U.S. v. Microsoft* trial court found, 'the ultimate result [of Microsoft's anticompetitive conduct] is that some innovations that would truly benefit consumers never occur [in the computer world] for the sole reason that they do not coincide with Microsoft's self interest' (*U.S. v. Microsoft*, FF 1999, p. 206). Even more emphatically the court found that 'Microsoft . . . *foreclosed* direct competition on the merits' between IE and Navigator when it bundled IE with 'the tying product,' Windows, and – through its licensing contracts with OEMs – sold Windows at a price that forced them to pay for IE whether they wanted it or not (*U.S. v. Microsoft*, FF 1999, p. 41; emphasis added). Despite positive network effects (hereinafter, network effects) that facilitate DAF-sharing, popular music fans and players have transferred enormous sums to Microsoft in the form of higher prices paid for OSs and browsers than fans and players would have paid under competitive conditions.

This study does not examine either the morality or legality of DAF-sharing. That such sharing produced economies for sharers cannot be disputed: these economies may have offset by many times the higher-than-competitive prices sharers paid for the means (in the form of Windows and IE) that enabled them to obtain their DAFs 'for free'. But, again, apart from the moral or legal issues of DAF-sharing, neither can the contention be disputed that users could have shared and could continue to share files at an even lower total cost if the market for the browsers that enable such sharing were more competitive.

In his canonical study, *Economics and Freedom of Expression*, economist Bruce Owen insists that there is no freedom of expression in any communication market if one or a few organisations control who shall express themselves in that communication market and who shall not (Owen 1975). Capture of a communication market by one or even a few firms not only lessens freedom of expression for actual or potential message makers in that market; such capture also lessens freedom for consumers in that market. In this light, the 'Windows–IE' tie-in effectively abridges the freedom of expression of independent software developers (ISDs) and actual and potential software consumers. The combination substantially retards, even if it does not entirely preclude, creation of *either* a browser *or* an OS superior to Microsoft's, because no ISD can compete with Microsoft's OS monopoly and unequalled Windows installed base (Caldwell 1998; *U.S. v. Microsoft*, FF 1999, ¶¶ 36–52).

The court ruling that certified the Windows–IE tie-in as lawful only continues to abridge software makers' freedom to innovate *either* better OSs or better browsers. The ruling also continues to abridge the freedom of consumers to buy alternatives to either Windows or Explorer, even if, in order to buy a better OS or browser – or both – consumers were willing to pay more than they now pay, however indirectly, for Windows or Explorer. To slow innovation of communication products, to deprive consumers of such actual or potential choice, abridges the freedom of expression of both independent software developers and consumers and thwarts the 'achieve-[ment] of maximum diversity of [communic]ation products' (Ahn and Litman 1997, p. 453). The promotion of what the US Federal Communication Commission calls 'viewpoint' diversity has marked rule-making in the broadcast domain for nearly seventy years (Federal Communication Commission 1964). The key means of achieving this end, however, has not been to concentrate but, rather, to diversify ownership of broadcast stations (Tedford and Herbeck 2001).

Unwarranted abridgement of any variety of expression by government or private interests may constitute irreparable harm. As the ruling in the famed Two Live Crew obscenity case observed: When 'speech is delayed or denied, the rights of both the speaker and his[/her] audience are impaired, and society is the ultimate ''loser'' ' (*Skyywalker Records v. Navarro* 1990, p. 596; see also *AP v. U.S.* 1945). Indeed, Oxford University media scholar Smith (1991, p. 51) insists that the very 'purpose' of regulating economically powerful mass communication firms 'is to safeguard freedom of expression' – not so much for those who own such firms but, rather, for those who do not. In light of all this, how can the owner of the tie-in that makes Internet communication possible for dozens of millions of PC users worldwide not be regarded as a mass communication firm? But the US case against Microsoft neither raised this question nor any more manifestly First Amendment one.

Finally, the Microsoft tie-in is undesirable economically because it raises barriers to enter the software industry. That is, tie-ins can increase capital requirements needed to start a software business (Walters 1993). To illustrate, at one time some firms may have been able to afford investing in the market for browsers. But because the Microsoft 'Windows–IE' tie-in has been ruled lawful (at least in the US), a potential entrant into the browser market finds that to sell its browser at all, it must tie it in with a non-Windows OS and supply an OS along *with* its browser. Building a better browser is one thing; if selling it requires wedding it with a non-Windows OS, then the potential entrant's costs rise dramatically. This would be so even if both the OS and the browser would be superior to Windows and Explorer, even if both enabled faster file-sharing.

What is more, in a world where no less than ninety-five percent of all computers are sold with Windows already installed, the likelihood of an independent browser-maker's success plummets with each penny added to the browser-maker's cost of creating a unique browser–OS combination, whether it be Windows compatible or not. The trial court found that 'Microsoft both refused to license its operating system without a browser and imposed restrictions . . . on OEMs' that precluded them from doing business with Netscape for no 'procompetitive purpose' (*U.S. v. Microsoft*, FF 1999, p. 78). The 'ultimate result' of Microsoft's anticompetitive conduct, said the court, 'is that some innovations that would truly benefit consumers never occur for the sole reason that they do not coincide with Microsoft's self interest' (*U.S. v. Microsoft*, FF 1999, p. 206). The court found that Microsoft's 'successful' efforts to 'ostracise Navigator' from the most 'efficient' channels of browser distribution 'forestall[ed] competition' in the browser industry and 'perpetuate[d] Microsoft's monopoly in the [OS] market' (*U.S. v. Microsoft* 2000, p. 17). Hence, it ruled that 'Microsoft attempted . . . to monopolise the Web browser market . . . in violation of [sec.] 2' of the Sherman Antitrust Act (1890) and 'unlawfully' tied 'its Web browser to its operating system . . . in violation of [sec.] 1' (*U.S. v. Microsoft* 2000, p. 2).

Should Microsoft's business practices be restrained?

The trial court ruled that Microsoft's tie-in of Explorer with Windows results in markedly greater social costs than benefits. Yet the most recent ruling in the case neither punishes Microsoft for the tie-in the trial court deemed illegal nor for a succeeding one that more directly affects those digital networks that bind together popular musicians, their fans and the music industry.[3] For, as many readers know, the latest version of the Windows OS ties in a media player.

As the judge wrote in the first Microsoft antitrust case: 'Microsoft is a company that has a monopolist position in a field that is central to the [economic] well being' of the US and possibly to other countries in which it has invested. Worse, it employed 'exclusionary and anticompetitive [practices] to maintain its monopoly' (*U.S. v. Microsoft* 1995; see also *U.S. v. Microsoft* 2000). Economic theory shows that social welfare is maximised when markets are competitive. Consumers benefit from lower prices, greater output (Walters 1993) and a more rapid pace of innovation.

US courts failed to protect the browser market but could protect the competitiveness of emerging markets, such as those for Internet, as distinct from desktop, software (Chandrasekeran 1998A; *U.S. v. Microsoft*, FF 1999, p. 41). Some of these use MP3 and Gnutella technology, which have been applied to store, retrieve, distribute and exchange popular music on the 'net'. But ultimate court endorsement of a second Microsoft monopoly in the browser, as well as the OS, market may guarantee only one thing: further anticompetitive conduct by Microsoft.

Ironically, an admiring journalist perceived its pattern of conduct four years before Judge Jackson. 'The company throws waves of resources at a problem [it detects] and *leverages* its current position in the marketplace to accelerate acceptance of its new products' (Levy 1995, p. 56; emphasis added). Three courts have concluded that Microsoft's use of such 'resources' have constellated 'exclusionary', 'anti-competitive', 'unlawful', 'monopoly . . . maintaining and ''predatory'' practices' (*U.S. v. Microsoft* 1995, *U.S. v. Microsoft* 2000, p. 2).

Only competition can economically and socially realise the dream of efficient access to Internet forms and contents and 'speaker-friendly' access to Internet distribution of expression, both musical and non-musical. The Consumer Federation of America's (1998) view on the issue was prophetic: 'The public could well have benefited from competition in the browser market'. But 'sources of [potential] innovation in the industry' were, as the trial court put it, 'trammeled' by Microsoft (*U.S. v. Microsoft* 2000, p. 20). A witness at the trial insisted that the only 'effective' remedy that could restore competition in what could be called the medium of Internet communication would 'remove the ability and/or the incentive for Microsoft to use its [monopolistic] control of the operating system market to restrict competitors in other markets, as they are today and as they will evolve' (Harris 1999).

As noted, the medium of Internet communication has evolved so that computer users can 'play music or video from The Internet' (Bloomberg News 2002). RealNetworks' RealPlayer preceded Microsoft's Media Player in providing users with this capability or, to use the word manifest in the 'Final Judgement' ruling, 'functionality' (*U.S. v. Microsoft Corp*. 2002, §III.C.3.). Before Microsoft bound its Windows Media Player (WMP) to Windows, RealNetworks' RealPlayer (RP) had more than six times as many users. Since defendant began to distribute this tie-in, WMP has seized market share from RP; in 2002 WMP pulled even with RP (Markoff 2002); as of February 2003, *The New York Times* reported that WMP's share had 'long eclipsed' RP's (Meller 2003). The Judgement, however, 'prohibits' Microsoft from 'restricting any OEM from installing, and displaying icons, shortcuts, or menu entries for, [sic] any Non-Microsoft Middleware' (§III.C.1.). RealPlayer exemplifies such Non-Microsoft Middleware, which the court defines as 'a non-Microsoft software product running on . . . Windows . . . that exposes a range of functionality to ISVs [independent software vendors] and that could [be] ported to or made interoperable with, [sic] a non-Microsoft Operating System'. There is a catch to the Judgement's prohibition, however: the non-Microsoft Middleware the OEMs may now 'install', etc., must have generated 'at least one million' sales, downloads or other 'copies . . . in the United States within the previous year' (§VI.M.).

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In simpler terms, the Judgement permits an OEM such as IBM to license *both* Windows and RP *and* to ship boxes that show an icon for RP on the Windows desktop when the desktop appears on the IBM's monitor screen. But Microsoft can lawfully bar its Windows desktop from displaying the icon as long as the firm restrains its desktop from displaying the WMP icon as well (§III.C.1.). Even more, the Judgement permits Microsoft to restrict OEMs from selling boxes that show icons on the Windows desktop for any non-Microsoft software product that has *not* dispensed 'at least one million copies . . . in the United States within the previous year' (§VI.M.). The Judgement bars Microsoft from restricting OEMs from '[l]aunching automatically, at the conclusion of the initial boot sequence or subsequent boot sequences[,] any Non-Microsoft Middleware' (§III.C.3.) as well.

From a First Amendment standpoint, the Judgement is non-optimal. Curtailing Microsoft's freedom to 'restrict . . . any OEM from

(1) 'installing, and displaying icons, shortcuts, or menu entries for, [sic] any Non-Microsoft Middleware' (§III.C.1.), and
(2) [l]aunching automatically, at the conclusion of the initial boot sequence or subsequent boot sequences[,] any Non-Microsoft Middleware' (§III.C.3.),

certainly creates new opportunities for non-Microsoft software 'speakers' to compete directly with Microsoft in such markets as that for media players. Curtailing defendant's freedom to, in Judge Jackson's colourful phrase, bind OEMs 'with contractual and . . . technological shackles in order to ensure the prominent presence of Internet Explorer [or any other Microsoft application] on every Windows user's PC' (*U.S. v. Microsoft* 2000, p. 11) certainly creates new opportunities for non-Microsoft software 'speakers' to innovate new Internet and desktop capabilities. With respect to RP in particular, the Judgement should end such anticompetitive defendant practices as plaintiffs alleged during the post-appeal penalty proceeding – namely, that Microsoft offered incentives to such companies as Internet Access Providers to stop using RP and pressured OEMs to block RP from starting automatically when their boxes booted up (Harmon 2002A). Again, the Judgement explicitly bars Microsoft from restricting OEMs from '[l]aunching automatically, at the conclusion of the initial boot sequence or subsequent boot sequences[,] any Non-Microsoft Middleware' (§III.C.3.) and bars defendant from 'grant[ing] Consideration to' any such provider 'or OEM . . . on the condition that such entity distributes, promotes, uses, or supports exclusively or in any fixed percentage, any Microsoft Platform Software' (§III.G.1.). Thus the relief the Judgement provides can produce an Internet that is more pro 'speaker', pro receiver and pro speech.[4]

A Brussels-based lawyer representing the Computer and Communications Industry Association trade group, however, has expressed doubts about the Final Judgement. Thomas C. Vinje points out that it will not deter developers of software that runs in conjunction with middleware products, such as audio players, from choosing the path of least resistance – toward Microsoft. Such ISDs know full well that Microsoft jams WMP into ninety-five percent of all new boxes; rational developers will more likely create software for WMP. 'Even if the [Windows] Media Player icon disappears from the desktop', Vinje says, 'Microsoft will still have an unfair advantage over rivals [as long as] Media Player files remain in the computer' (quoted in Meller 2002).

Even more, what percentage of ISDs possess the wherewithal to finance

(1) the R & D effort required to invent a *new* Windows platform 'functionality',

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(2) the manufacture of perhaps a million copies of the 'functionality', and
(3) its million-unit distribution

with *no* guarantee any OEM will license it or that Microsoft will allow the OEM to install it in the first place? Even if an OEM wants the new functionality and wins the right to install it, what percentage of ISDs possess the wherewithal to capitalise the fight with Microsoft one could expect in order for the licensing OEM to win rights to display icons, shortcuts, or menu entries for the new functionality on Microsoft's Windows desktop when it appears on the OEM's monitor? Moreover, what OEM would take on Bill Gates' behemoth for rights to display icons, etc., on the Windows desktop for software made by some *other* firm? The Judgement continues to cede to Microsoft the lion's share of the determination of who shall 'speak' – or at least be represented iconically – on the Windows desktop and who shall not (see Owen 1975). This state of affairs may well, in the words of US Attorney General John Ashcroft, 'remove the uncertainty in the computer market' (quoted in Labaton & Lohr 2001). But as long as Microsoft defines and monopolises end-users' desktop experience, there is, after Owen (1975), no freedom of expression in computer-mediated communication.

In another case, the US Supreme Court held that 'computer[-aided] communication networks embody the values that underlie the First Amendment by nurturing the robust exchange of ideas'. Microsoft's OS monopoly and many and varied attempts to monopolise have constellated a clear and still-present danger to 'dismantle the free and open nature of a promising new medium that could empower citizens and promote democracy in the next millennium'. Viewed from a First Amendment horizon, Microsoft's illegal conduct has, in the words of this other case, 'stifle[d] creativity and breadth of expression' in computer-aided communication in ways that I contend 'cannot be reconciled with First Amendment rights' (*Reno v. American Civil Liberties Union* 1997). The remedies of the Final Judgement do not punish Microsoft for its past actions and, again, cede to it much discretion over which innovations get represented on its Windows desktop and which do not. To be sure, the Final Judgement lessens defendant's power to exclude expression that takes the form of rival or new applications. But by means of its Windows monopoly and, now, the Final Judgement, Microsoft can – and, if past is prologue, will – continue to 'stifle creativity and breadth of expression' in computer-aided communication (*Reno v. American Civil Liberties Union* 1997). Rivals and smaller ISDs still do not 'know' today what they did not in 1998 or before: 'that their products can compete [in IT technology markets] on their own merits and not [eventually] be snuffed out by Microsoft's use of [its] monopoly power' (Furse 1998, p. 99).

The view from Europe

The European Commission has been conducting its own antitrust investigation of Microsoft since 1998. Unlike the US Justice Department, the commission has placed defendant's bundling of WMP with Windows at the 'heart' of its complaints. The commission has 'accused Microsoft of trying to wipe out the market for rivals' audio and video-player software' through this bundling practice (Meller 2003). In early 2003, Vinje's group, which represents such high-tech firms as Sun Microsystems, Finland's Nokia Corp. and Japan's Fujitsu, filed with the commission a new antitrust complaint against Microsoft that essentially makes the same claims as the commission.

In addition to Media Player, the new complaint asserts, Microsoft has bundled its e-mail software, known as Outlook Express; a video-editing program called Movie Maker; and instant-messaging software into Windows XP[, the firm's most recent version]. The complaint also accuses the company of using Windows XP to muscle into the market for mobile phone operating systems and to win unfair advantages for Microsoft's own online commerce system, known as .Net (Meller 2003).

The president of the Computer and Communications Industry Association maintains that its 'complaint comprehensively details the myriad anti-competitive abuses of Microsoft that remain at the heart of their ongoing business strategy' (quoted in Meller 2003). The commission has already concluded that ensuring a place for WMP in Windows operating systems 'is a weakening of effective competition in the market [for media players], a reduction of consumer choice and less innovation' (Meller 2002). Microsoft defenders 'argue that computer users like and benefit from the convenience of a single software package incorporating everything from e-mail to video players, and that they feel safer using software from a single supplier because they encounter fewer problems with compatibility' (Meller 2003). But, as Vinje was reported to have said, forcing 'Microsoft to unbundle its programs and sell them as separate products would not impede computer manufacturers from installing all of Microsoft's offerings on their products if they chose' (Meller 2003).

In a similar bundling (read: tie-in) case, the Japan Fair Trade Commission recently ruled against Microsoft. The firm's Japanese subsidiary had originally sold its database program, Excel, as a separate product. Later it tied its licensing of Excel to an agreement from buyers that they license Word and Outlook, its e-mail software, as well. 'Item 10 of the [Japanese Commission's] General Designation of Unfair Trade Practices designates as an unfair trade practice unjustly tying in a product to another product'. In December 2000, the Commission ruled the Excel–Word–Outlook tie-in an unfair trade practice and ordered Microsoft Japan to abolish it. The Commission further ordered Microsoft Japan to accept requests from existing Excel licensees to modify any prior agreement so that they would be free to license Excel alone or Excel and Word, if they so wished (Kondo 2002, §2.3.2).

Conclusion

The popular music community awaits the EC's ruling on the Window's–WMP tie-in. I have aimed to demonstrate that 'maximum diversity of [communic]ation products' (Ahn and Litman 1997, p. 453), not only in Europe but on the world wide web, is at stake. At stake as well is the penultimate freedom of computer-assisted communication, musical and non-musical: freedom of expression. As noted above, there is simply *no* freedom of expression in any communication market if one or even a few organisations control who shall express themselves in that market and who shall not (Owen 1975; see also Sunstein 1986). Owen (1975) insists: 'Freedom of expression *must* . . . mean . . . *equal* freedom for *all* speakers [to] put . . . messages . . . before the public' (pp. 4, 23; emphasis added; order inverted for the sake of quotation). In a contemporary context, these must include those messages encoded in computer languages and those that enable the computers of both message makers and consumers to encode or decode audio and video texts.

Casual observation of the world of computer-assisted communication reveals that this world – the post-industrial world – is not free but captive. One firm monopolises not only the operating systems technology that makes personal computing as

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we have known it possible, but also the technology to both produce and receive Internet messages of any sort. Furthermore, and if Microsoft has its way, it will monopolise the means to store, retrieve, distribute and exchange Internet audio and video. As the landmark ruling in *Associated Press v. United States* (1945) reminds us, the United States Constitution 'does not sanction repression of [such] freedom by private interests' (p. 20). On the contrary, 'as the capacity for carrying expression through emerging technologies increases, careful and thoughtful consideration for enhancing, not restricting, access to and expression of ideas should be the *utmost* consideration for policy' (Snyder 1996, p. 100; see also Bernstein 1986).

It is one of the cardinal contentions of this study that, in full flight from *Associated Press v. United States* (1945), US courts have privileged the private interests of an 'exclusionary', 'anticompetitive', 'unlawful', 'monopoly . . . maintaining' and 'predatory' (*U.S. v. Microsoft* 1995, *U.S. v. Microsoft* 2000, p. 2) 'monopolist . . . in a field [they have judged to be] central to the [economic] well being' of the US (*U.S. v. Microsoft* 1995) above such a consideration. Advocates for freedom of expression in computer-assisted communication of any and all messages, including musical ones, can only hope that the EC does not.

Implications for popular music as industry, technology and means of communication

Since the invention of the printing press and especially the phonograph, popular music cannot be considered an industry or an industrialised technology apart from the capacity of musicians and others to symbolise tones (by means of musical notation) and 'fix' them in what the US Copyright Act of 1976 calls 'tangible medi[a] of expression'. Such media either present or represent sound in a 'sufficiently permanent or stable [form] to permit it to be perceived, reproduced, or otherwise communicated for a period of more than a transitory duration' (quoted in Pember 2001, p. 503). The US Congress thus takes notated or audio-recorded music as a form of communication, and the Semiconductor Chip Protection Act of 1984 amended the 1976 Act to extend copyright protection to messages – or communications – recorded onto chips.

Preoccupied as they likely are with sound, musicians who make and fans who hear music on their computers may not be conscious of Microsoft's dominant role in both Web production and reception of Web-posted audio communication. But the record of the Redmond behemoth suggests that trusting the fate of the sweet bird of music to any one company but especially to Microsoft would be like placing the bright yellow goldfinch I just saw outside my window in the claws of a trans-national Tyrannosaurus Rex. If freedom has a sound, could it be one communicated by a predatory beast?

Endnotes

1. A previous version of this study was scheduled for presentation at the Annual Meeting of the US Branch of the International Association for the Study of Popular Music, Iowa City, IA, 15 September 2001. Cancelled due to the terrorist acts of 11 September, the meeting was reconvened as a conference by computer on 18–27 January 2003. The previous version was Web-posted during that period.
2. For many such scholars, this view is both prompted and legitimated by the grasp of popular music as speech in such cases as *Skyywalker Records v. Navarro* (1990), in which the recording company that released a Two Live Crew album challenged on First Amendment grounds a finding that the album was obscene. For similar views of musical recordings as speech, see also *UMG Recordings v. MP3.com* (2000).

3. AOL Time Warner, owner of several of the recording industry's most successful labels *and* Netscape, has since sued Microsoft in a civil antitrust action. AOL's complaint, however, 'includes the tying claim' (Lohr 2002).
4. The Final Judgement defines 'Consideration' as 'any monetary payment or the provision of any preferential licensing terms; technical, marketing, [or] sales support; enabling programs . . . developer support [or] permission to display trademarks, icons or logos' or similar reward (§VI.C.).

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