MICROSOFT: A MONOPOLY

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ABSTRACT

On May 18, 1998 attorney generals from 20 states, the District of Columbia and the U.S. Department of Justice filed historic antitrust lawsuits against Microsoft Corporation to seek major changes in the look and design of the software that runs most of the world’s computers. The trial could lead to an outcome as dramatic as the breakup of Microsoft. The suit alleged “Microsoft held monopoly power over the Windows desktop environment. The suit also claimed that Microsoft illegally leveraged that monopoly power to force computer makers to pre-load its Web browser on their computers in an effort to shut Netscape communications” (5) - which Microsoft viewed as a potential threat to its dominance—out of the market. The Justice Department claimed that when Microsoft made its Internet Explorer (IE) Web browser an inseparable part of Windows, it illegally “tied” its Internet browser to Windows, thus forcing consumers and computer makers to install IE even if they did not want it. The Department of Justice claimed that there was no technological benefit from such “tying” and that is was done simply to drive the cost of browser products to zero, and make it difficult, if not impossible, for others like Netscape to charge for their browser products. The case centered primarily on the development and marketing of Microsoft’s Windows operating system, as well as, the related deployment of the company’s Internet Explorer Web browser. The court’s findings of fact stated that Microsoft has a dominant share of the lucrative market for PC operating systems—the software that carries out the basic functions of a computer—and that consumers lack a commercially viable alternative to Windows in this area. One of the key issues behind the case was Microsoft’s Internet Explorer software, which was introduced in 1995 as a tool for browsing the increasingly popular World Wide Web. Incorporated into the Windows 95 operating system, Internet Explorer began to take away market share from the established leader, Netscape Navigator. Officials of Netscape Communications Corporation charged that Microsoft was using its dominance in operating systems to illegally take control of the browser market. Much of the courtroom debate centered on whether Microsoft’s browser was an integral part of the Windows operating system or an add-on application that could be easily removed. Netscape and other competitors argued in their testimony that the browser could and should be removed because Microsoft gained too much of an advantage if it could bundle this or other software with Windows. Microsoft officials insisted the browser was a built-in feature of the operating system and argued that Microsoft, rather than the government, should have the freedom to innovate and determine what is included in Windows. However, Judge Thomas Jackson has ruled “Microsoft holds monopoly power in personal computer operating systems and has used that power to squash potential threats from competitors” (6).

Keywords: Microsoft, monopoly, United States v. Microsoft Corporation, anti-trust
BACKGROUND

A personal computer (PC) is a digital information-processing device designed for use by one person at a time. A PC consists of a microprocessor, main memory, and a hard disk. A PC system consists of a monitor, keyboard, mouse, printer, and an operating system. An “operating system” is a software program that controls the allocation and use of computer resources. The operating system also supports the functions of software programs that perform specific user-oriented tasks. The system supports the functions of applications by exposing application programming interfaces (APIs). These are synapses at which the developer of an application can connect to invoke pre-fabricated blocks of code in the operating system. These blocks of code in turn perform crucial tasks, such as displaying text on the computer screen. An Intel-compatible PC is one designed to function with Intel’s Pentium families of microprocessors or with compatible microprocessors manufactured by Intel or other firms. In 1981, Microsoft released the first version of its Microsoft Disk Operating System, also known as “MS-DOS.” The system had a character-based user interface that required the user to type specific instructions at a command prompt in order to perform tasks such as launching applications and copying files.

In 1985, Microsoft began shipping a software package called Windows. The product included a graphical user interface, which enabled users to perform tasks by selecting icons and words on the screen using a mouse.

In 1995, Microsoft introduced a software package called Windows 95, which announced itself as the first operating system for Intel-compatible PCs that exhibited the same sort of integrated features as the Mac OS running PCs manufactured by Apple Computer, Inc. Windows 95 had unprecedented popularity with consumers, and in June 1998, Microsoft released its successor, Windows 98.

Microsoft licenses copies of its software programs directly to consumers. The largest part of its MS-DOS and Windows sales consists of licensing the products to manufacturers of PCs known as “original equipment manufacturers” (OEMs) like IBM or Compaq. An OEM typically installs a copy of Windows onto one of its PCs before selling the package to a consumer under a single price.

THE SHERMAN ANTITRUST ACT (1890)

Section 1. Trusts, etc., in restraint of trade illegal; penalty

“Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, or conviction thereof, shall be punished by fine not exceeding $10,000,000 if a corporation, or, if any other person, $350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.” (7)

Section 2. Monopolizing trade a felony; penalty

“Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several
States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $10,000,000 if a corporation, or, if any other person, $350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.” (7)

**UNITED STATES V. MICROSOFT CORPORATION**

**Microsoft’s Monopoly Power**

The Court’s conclusion that Microsoft has monopoly power and that power has derived additional strength from the applications barrier to entry is not subject to debate. Microsoft has tried to diminish the prospective strength and significance of its monopoly and its anti-competitive conduct. “Microsoft accomplished its anti-competitive goals by using market division, tying and coercive bundling, exclusive dealing, license restrictions, intentional incompatibility, predatory pricing, and delayed or incomplete disclosure of application program interfaces (APIs).” (6)

“Microsoft Windows now controls over 95% of the PC operating systems market. Microsoft’s share of PC client operating system environments—a measure that includes the Apple Macintosh and other non-Intel platforms—actually increased in 1998.”(8) Although Microsoft has invited speculation that its monopoly power in PC operating systems may be transitory in light of industry developments, Microsoft’s operating systems monopoly shows no signs of abating. “Microsoft contended that the AOL/Netscape merger threatens their stranglehold on core software markets confirmed the opposite proposition.” (12) AOL’s recent merger with Time Warner reinforces AOL’s focus on the entertainment industry rather than on software, which remains Microsoft’s domain. AOL is not an actual rival in the market for operating systems. “AOL has not been, and will not be, a force in technology innovation outside the four corners of its online service.” (9)

“Microsoft’s control over PC operating systems has been augmented by control over the Web browser. Microsoft Internet Explorer controls about 2/3 of the Web browser market.” (14) Internet Explorer gains about 2% in market share each month as the installed base of personal computers converts from Windows 95 to Windows 98. Most PCs still use Windows 95 rather than Windows 98. Once the remaining installed base of Windows 95 users upgrades to Windows 98, Microsoft’s share will near 100%, while Netscape’s share will decrease close to zero.

Since the Internet has emerged as a leading force in commerce and communication, the browser is the interface through which all of Internet computing must pass—a bottleneck as significant for computing based on Internet standards as the operating systems bottleneck has been for the PC and client-based computing. As Internet Explorer ripens into an entrenched monopoly, nothing will stop Microsoft from adding proprietary features to the browser that allows proper functionality only with Web pages hosted on servers running Microsoft server software—which runs only on a Microsoft operating system.

Being successful in “competition does not necessarily equate to unlawful monopolization especially in the absence of high entry barriers, and that a larger market share may be a misleading indicator of monopoly power”. (10) The Court found that Microsoft maintained its monopoly position by preventing rivals from competing on the merits, rather than “as a consequence of a superior product, business acumen, or historic accident.” (13) Microsoft has succeeded in protecting its operating systems monopoly and in surrounding it with a new
monopoly in Web browsers. Without action by the Court, Microsoft’s monopoly power could persist through the future. Microsoft’s monopolistic campaign was not an isolated phenomenon limited to the Web browser, but rather a part of a comprehensive strategy to preserve the scope of its monopoly power. They have demonstrated the ability to repeat their actions with respect to many other software products that otherwise might undermine the dominance of the Windows monopoly by providing alternative platforms of any kind. According to the Court’s findings, “Microsoft is motivated to make every effort to prevent competition from intruding even onto the periphery of its monopoly.” (3) Now, Microsoft is doing with audio/video streaming software exactly what it did with the Web browser. “Microsoft is trying to foreclose competition from RealNetworks’ RealPlayer and RealJukebox, and Apple’s QuickTime without winning on the merits. To accomplish this, Microsoft has tied Windows Media Player to Windows, and on both the desktop and server versions.” (11) Streaming audio and video will be an increasingly important application on the Web, particularly as broadband Internet connections proliferate. By tying Windows Media Player to the client operating system, Microsoft can force Web sites to support Windows Media on the server side and also force Internet Service Providers to support the Windows Media format—which requires the use of a Windows server operating system. Microsoft claims that the threatening technology is a key component of Windows, just as they argued in reference to the Web browser during Court. As Microsoft continues to interlock so many programs with its core operating system and browser to preempt the threat of platform competition, they are increasingly able to “expand its operating systems monopoly to preempt any challenge to that monopoly that might arise from the network servers” (4) that control the back-end of network computing. As the Court found, Microsoft’s effort to dominate the browser market was intended “to ensure that if and when full-featured, server-based applications begin appearing in large numbers on the Web, the number of them relying solely on middle-ware APIs will be too few to attenuate the applications barrier to entry.” (13) Without a clear declaration of unlawfulness by the Court based on the record established in the case, Microsoft is likely to continue and repeat its anticompetitive conduct. If Microsoft emerges from this case with its illegally preserved monopoly in place, they will retain the incentive and ability to use the same practices in market after market as different potential middleware platforms arise and threaten to inject competition into markets that Microsoft controls—driving out innovation and consumer choice in its wake.

Microsoft Coerced Rivals Not To Compete

Microsoft’s initial response to perceived threats to its Windows monopoly was to pressure potential rivals in abandoning their competitive efforts. For example, Intel developed software to expose a set of APIs that would showcase advances in Intel’s microprocessor. Microsoft exercised its monopoly power to ensure that consumers would never have the opportunity to purchase Intel’s software, coercing OEMs to refuse to load it onto their machines and threatening to withdraw its support for Intel’s microprocessors. Microsoft ultimately “forced Intel to abandon any effort to develop APIs”, (3) that posed a competitive threat to Windows. Microsoft also used similar tactics to foreclose competition from several other sources such as Netscape, Apple, and IBM. For example, when “Microsoft did not get its way with Netscape, it made good on its threats by exploiting its control over the Windows APIs that every developer of
PC software needs." (2) By delaying Netscape’s access to Windows 95 APIs, Microsoft succeeded not only in raising Netscape’s costs but improving the competitive position of Internet Explorer by retarding Netscape’s ability to innovate. The Court stated that Microsoft “makes a ‘corporate practice’ of coercing market division arrangements by ‘pressuring other firms to halt software development’ that might force their core products to compete on the merits.” (15) Other software companies do not follow the same standard operating procedure, but instead have to use more traditional means in the competitive struggle. “Microsoft’s demonstrated willingness to mobilize virtually unlimited resources to stifle competition has made companies that otherwise would compete with Microsoft in the marketplace loath to do so.” (15)

Web Browser “Tying”

Microsoft’s decision to tie Internet Explorer to the underlying Windows software was not justified by “valid business reasons.” The initial, “purely contractual tie-ins are clear violations that present no unusual issues under settled law. The interlocking of Internet Explorer code in Windows 98 likewise did not derive from technological necessity or any need to preserve the supposed integrity of Windows, and this is a violation as well.” (15) The supposedly inseparable browser can be distributed separately from the operating system and then loaded just as any other application is loaded and may be integrated. Microsoft currently distributes Internet Explorer 5.0 as a freestanding product, and it has filed patent documents explaining that “a Web browser, such as Netscape Navigator or Internet Explorer…is separate from the operating system.” (2) Microsoft lost substantial goodwill with OEMs by contractually proscribing them from deleting Explorer from the computer before shipping and by threatening to withdraw Windows licensing if an OEM deleted items from the Windows desktop or modified the initial boot sequence. OEMs thus had to abandon start-up sequences into which they had poured millions of dollars, and that consumers demonstrably desired. (15) In addition, by delaying release of Windows 98 in order to complete the technological tying of Internet Explorer 4.0, Microsoft forced OEMs to miss the holiday and back-to-school buying seasons.

Microsoft’s tie-in also created resentment among end-user consumers. Many consumers simply did not want a browser tied exclusively to Windows. Many consumers also preferred to have no browser available on their system. In addition, combining the operating system and the browser has actually degraded the system’s “stability and security.” (15) Microsoft not only has forced an integrated browser on every Windows consumer, but also has reduced the value of its underlying system in the process. It is not normal business practice to disregard consumer preferences. When such ill effects are forced on unwilling consumers through an exercise of market power directed at the preservation of a monopoly, the results have overwhelming antitrust significance.

A firm truly competing for the business of consumers with differing needs would have introduced both a bundled and an unbundled version of the operating system, or would have let consumers conveniently delete the browser after installation. Such a strategy would have tapped into varied consumer preferences. Microsoft alone has taken the unusual step of making the tie-in almost irreversible by end-users. This type of coercion is usually not excused by antitrust laws. Microsoft expended so much time and effort to reduce consumer choice and degrade the underlying Windows product to protect its operating system monopoly. For a firm with monopoly power, coercive tying can serve as an effective entry deterrent as well as a powerful
weapon to combat new market participants. “Once the decision to bundle is made, price competition between the monopolist and the competitor will ensure the competitor’s eventual demise as a competitor and as a threat to the underlying monopoly”. (1)

Predatory Pricing

Predatory pricing as defined by the Antitrust Division is a “response to a rival that sacrifices part of the profit that could be earned under competitive circumstances in order to induce exit and gain consequent additional monopoly profit”. (1) Microsoft’s willingness to price Internet Explorer at zero or less than zero to internet service providers (ISPs) and businesses that had demonstrated willingness to pay for Web browsers, reflects classic predatory behavior by a monopolist. “Microsoft not only gave away Internet Explorer in order to foreclose a perceived threat to its monopoly, but absorbed the considerable additional costs associated with enlisting other firms in its campaign to increase Internet Explorer’s usage share at Navigator’s expense. As a consequence, the effective price of Internet Explorer was considerably less than zero. As the court found, “had Microsoft not viewed browser usage share as the key to preserving the applications barrier to entry, …Microsoft would not have pursued this course.” (15)

Although Microsoft’s conduct constituted classic predation by a monopolist trying to foreclose competition, some aspects of this case differed slightly from the typical predatory pricing case. The usual perceived danger of predatory pricing is that once the troublesome competitor has departed the monopolist will raise prices on the product temporarily price below cost. Thus, a price can be predatory in the antitrust sense only if it is below an appropriate measure of cost. There was no question that Microsoft priced below cost, actually below zero. Although it was not clear what Microsoft planned to charge for Internet Explorer separately from the price of Windows, but its plan to recoup its losses were clear. Microsoft’s zero-to-negative imputed price for Internet Explorer is well below its cost by any measure. Because Microsoft has already collected monopoly rents on its operating systems, their predation decision was economically rational as long as it helped to preserve the applications barrier to entry in operating systems.

CONCLUSION

A federal judge has concluded that Microsoft used its prodigious market power and immense profits to stifle innovation and harm both consumers and any companies that dared to compete with them. As of June 20, 2000 a federal judge has ordered the breakup of Microsoft for abusing its Windows monopoly power.

Showing that Microsoft is a monopoly in the computer industry is one thing; deciding what to do about it is something else altogether. The terms of the Findings mean that nothing in the way of remedies is off the table, including a break-up of the company.

The first is that the pace of change in the industry is so rapid. Even after the judge’s findings, some commentators still argue that no remedial action is necessary; the future, they believe, is with the Internet and the Internet is fundamentally hostile to vendor monopolies of critical infrastructure. Despite its business practices, Microsoft has been unable to extend its dominance to the web.

One solution that stops short of breaking the firm up would be to force it to publish the full specifications of the Windows “application program interfaces”(APIs). Going further, Microsoft could be required to license the source code for Windows itself to the highest bidders. If it
encourages the entry of powerful companies such as Sun Microsystems and Oracle, a main objective of the Justice Department will be achieved. Yet a drawback of both approaches is that they rely on other firms' appetite for risk-taking. So if after a year, no new entrant has appeared to challenge Microsoft's monopoly, the break-up option would need to be revived. There is one other version that would carry less risk of perverse unintended consequences: to divide Microsoft into two or three competing operating-system companies and an applications company. Microsoft would then have no incentive to create different APIs, as they would all have a strong interest in supporting the greatest possible number of Windows applications. They would instead compete on price, ease of use, features and the trade-off between stability and backwards compatibility. The discipline of real competition would trigger innovation and give consumers more choice. It may also prevent the government from trying to run the technology industry.

REFERENCES