Book review


It is rare that an antitrust case against an American company generates much interest outside of the corridors of the U.S. Justice Department in Washington, D.C. Yet the contentious case of the United States of America vs. Microsoft Corporation has captured the attention of ordinary citizens all over the world. The stakes for both parties are enormous. If the U.S. government prevails, this case could determine new rules of competition for the entire software industry. On the other hand, a victory for Microsoft may allow this company to compete even more aggressively in the future. The case therefore has ramifications for the international community, which has deep concerns about Microsoft’s dominant global position.

In February, 2000 the European Commission began its own investigation into claims that Microsoft’s Windows 2000 software is being leveraged to help the company gain more control over electronic commerce. Even in China, where Microsoft is seen as an arrogant and conceited behemoth, the trial has been closely followed and has created a lively market for books that vilify the corporate giant. These include Mr. Fang’s popular polemic, Arise and Challenge the Hegemony of Microsoft!

By contrast, Winners, Losers and Microsoft is a sobering economic treatise that attempts to examine Microsoft’s corporate hegemony from a more balanced and non-ideological perspective. The authors, Stan Liebowitz and Stephen Margolis, two well known economists, have crafted a reasonable and sometimes spirited defense of the U.S. government’s allegations that Microsoft has abused its monopoly power by foisting inferior products on a captive audience of consumers. Some of their analysis is technical and difficult, especially for those with little background in the discipline of economics, but the effort is worthwhile for anyone who wants to understand the intricacies of the Microsoft antitrust case.

The relevance of this book for information technology and ethics may not be immediately apparent. But the issue of fair competition is still a neglected topic in both business and computer ethics literature. This issue is also complicated immensely by companies such as Microsoft that have created a successful standard like Windows. High tech markets such as the one for operating system software often manifest a “winner take all” dynamic, and therefore domination by one or two companies is both inevitable and socially acceptable. This is not to suggest, however, that there should be an “anything goes” mentality in such markets or that the ideals of fairness and positive competition no longer apply. Bill Gates and Microsoft have been aggressive competitors since the early 1980’s, trying to “push the envelope” as far as they possibly can. It is the challenge of moralists to help define the legitimate boundaries of that envelope. What does constitute the boundary of fair competition in these “winner take all” markets? When is monopoly power abused to the detriment of consumer welfare and the social good? Although the law in these areas of concern is unsettled, we assume that there are moral norms governing business competition. For example, a corporation cannot steal proprietary secrets from its competitors or pass off the competition’s work as its own. Also, there is a general recognition that corporations cannot leverage certain advantages such as size or scale in their competitive efforts to the extent that it negates opportunities for other competitors. There must be some respect for a level playing field that benefits consumers. According to Judge Goldberg, “Our devotion to free-wheeling industrial competition must not force us into accepting the law of the jungle as the standard of morality expected in our commercial relations.” However, we must grapple with how these norms of fair competition should be adapted to industries like software that tilt the playing field on behalf of its most successful incumbents, who in turn cannot escape the inexorable pace of innovation. The Microsoft trial reveals just how difficult it is to resolve such questions in this radically new context.

Of course, one cannot even begin to address these matters without understanding the underlying economics of the software industry. Much of Winners,

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Losers, and Microsoft is dedicated to this task. To begin with, the authors explain the concept of “network effects” or “demand side increasing returns” where a product’s benefits for each user increase with the number of other users who adopt that product. This phenomenon typifies networks, either physical communications networks or virtual networks such as the “network” of users of Macintosh computers. Communications technologies including the telephone, fax machine, and e-mail represent prime examples of the power of the network effect. For example, if there is only one person with a telephone, this communications tool has little value. But as more and more people use the telephone, the more value it acquires.

Members of a network demand compatibility since this greatly facilitates communication or data transfers. The need for compatibility has given rise to the extraordinary importance of standards. For example, most users greatly appreciate compatibility among software applications. If everyone is using Microsoft Excel it will be easier to transport and share spreadsheet data. Since consumers highly value compatibility they are sometimes willing to sacrifice a measure of functionality or convenience so that they can use an industry standard spreadsheet or database.

The presence of these network effects accounts for Microsoft’s dominance in operating system software. Interconnectivity is a critical purchasing criterion, since no one wants to be running a system that is not widely used. Hence users understandably purchase the same system that other users have. If one is thinking about buying a desktop computer one will most likely be drawn to a Wintel (Windows and Intel) operating system. This phenomenon is known as positive feedback: a large installed base leads to increasing sales which in turn “feeds back” to increase the installed base. Thus, Microsoft currently controls the standard for PC operating systems because network effects along with the high cost of developing a rival operating system create barriers to entry, making it insurmountable for potential competitors to gain any ground. Also, there is a tight correlation between applications software developers, who write software for a particular operating system (OS), and the number of users of that system. And the more software available, the more this OS becomes appealing to other consumers and to still more software developers. What we have is a mutually reinforcing virtuous cycle that further solidifies the dominant position of an operating system vendor such as Microsoft. Thus, the economics of operating systems (network effects, positive feedback, high fixed development cost, and a virtuous cycle of software development) favor the dominant firm and lead ineluctably to monopoly power.

Liebowitz and Margolis argue that in these increasing returns industries “monopoly does not lead inevitably to a bad economic outcome for society” (10). In their estimation this is because the dominant companies like Microsoft are not conventional monopolies. Rather they are serial monopolies where one monopoly (or near monopoly) gives way to another. The authors describe how WordStar gave way to WordPerfect, which then gave way to Word. This is a socially desirable and efficient outcome given our dependence on standards in a network economy where there is a need to communicate or interconnect.

Obviously, not everyone agrees that just because network effects bias certain industries to monopoly power that the outcome is as benign and efficient as these two economists contend. There are many other economists who argue that these network effects create a serious threat of anti-competitive behavior that must be dealt with before too much damage is done. The U.S. Department of Justice (DOJ), swayed by this logic along with its dismay at Microsoft’s behavior as a monopolist, decided to pursue legal action against Microsoft. This epic confrontation commenced in 1993 and culminated in the famous antitrust trial, which got underway in October, 1998.

The U.S. government’s case, which is well summarized in this book, focuses on three broad areas of allegations:

1. Microsoft’s monopolization of the market for PC operating systems and its general reliance on monopoly leverage to win a greater share of other markets.
2. Anti-competitive tying or bundling of Microsoft’s Internet Explorer browser with its Windows OS in violation of Section 1 of the Sherman Act.
3. Anti-competitive tactics and contractual arrangements used to reinforce the tying of these two products or to leverage Windows for preferential placement of its browser icon. This category should include other anti-competitive tactics such as Microsoft’s alleged attempt to coerce Netscape into dividing the browser market.

In order to make the first allegation stick the DOJ had to prove that Microsoft abused its monopoly power, since it is not necessarily illegal just to be a monopoly. Most monopolies use their power to hurt consumers by charging higher prices (monopoly rents) and reducing output, but that is not the case with Microsoft which typically sells its OS to hardware manufacturers at a meager price of $40. According to the authors, the argument instead centers on the notion that the Microsoft monopoly locks-in users to sub-optimal products. They write that “lock-in theories offer an alternative way to claim harm in the absence