

**PRODUCT-REDESIGN AND THE ABUSE OF DOMINANCE:
THE APPLE IPOD ITUNES ANTITRUST LITIGATION**

Laurence Popofsky

In Genesis God asks Cain: “Where is Abel?” Cain, having slain Abel, replies, “I don’t know. Am I my brother’s keeper?” If we rewrite Cain’s response to read: “Am I my competitor’s keeper?” we pose a difficult question of antitrust jurisprudence on both sides of the Atlantic. That is particularly the case when assessing the conduct of a dominant undertaking or, in American parlance, a monopolist which redesigns its product offerings. Of course, a monopolist must be able to innovate. But when do its product redesigns not only slay its downstream competitors which rely on interoperability with the monopolist’s product but also harm the competitive process itself? When does it cross the line and where, pray tell, is the line?

Unlawful predation which violates Section 2 of the Sherman Act—my sole concern in these comments—may take many forms, as American courts often observe. *See, e.g., Caribbean Broad. Sys Ltd. v. Cable & Wireless PLC*, 148 F.3d 1080, 1087 (D.C. Cir 1998). “Anticompetitive conduct is behavior that tends to impair the opportunities of rivals and either does not further competition on the merits or does so in an unnecessarily restrictive way.” *Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883, 894 (9th Cir. 2008) (citing *Aspen Skiing Co. v. Aspen*

Highlands Skiing Corp., 472 U.S. 585, 605 n.32 (1985). Illegal predation may consist simply of inaction as in the case of a monopolist which owns an input essential to downstream competition but refuses to help its competitors by giving access to it. Predation can also take the form of affirmative acts. The most familiar example is predatory pricing although that is seldom proven in the United States because the Supreme Court requires that a plaintiff must prove both that the monopolist sold its products below its cost and that the losses thus incurred will probably be recouped once its competitors are vanquished. *Brooke Group, Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993).

With respect to high-tech products such as coded software, illegal predation through innovation can surely occur. But when? That was the central question put to the jury in December 2014 in Oakland, California, in the *Apple iPod iTunes Antitrust Litigation*, 796 F. Supp. 2d 1137 (N.D. Cal. 2011). There, a class of 8 million consumers sought to recover treble damages exceeding one billion dollars from Apple—an amount which would be only a rounding error on Apple’s balance sheet—because it allegedly monopolized the downloaded digital music market. Plaintiffs claimed that the price of iPods was hiked above competitive levels because Apple had repeatedly undermined the efforts of competitors to offer music downloads from on line stores other than Apple’s iTunes.

The facts were largely undisputed. In 2001 Apple introduced the iPod portable digital music player. Two years later Apple launched iTunes, which initially was a software program downloadable from Apple's website which allowed users to catalogue, organize, and of course play their digital music libraries. The record labels which owned the copyrights on the music required Apple to encrypt its software in order to guard against piracy. Apple complied in the form of proprietary software dubbed Fair Play.

As originally conceived, the iPod could play any song files in .mp3 format downloaded from any seller. However, after Apple launched iTunes as a music store, it modified its software making iTunes exclusively compatible with the iPod. Newer iPod models were unable to play music purchased from competitors of the Apple iTunes store.

In July 2004 a competitor called RealNetworks, having reverse-engineered Apple's Fair Play, introduced a product called Harmony which enabled music purchased from its online music store to be played on Apple iPods. Apple cried foul asserting that in offering Harmony RealNetworks had adopted the ethics and tactics of a hacker and put Apple in jeopardy with its music label partners. But neither then nor at any time thereafter did Apple sue RealNetworks. Instead it resorted to self-help.

In September 2006 Apple released a set of software updates featuring a redesigned Fair Play which stopped the interoperability of Harmony or any similar product with the iPod. A year later Apple introduced another software update which stopped any consumer's iPod from functioning at all if, during an attempted purchase from the iTunes store, Apple's software detected songs on the device which were not purchased from it. A consumer could fix the problem but only if she plugged her iPod into iTunes, erased all of the iPod's existing content, including any songs purchased from rival music stores, and then uploaded them back into iTunes. Needless to say that process entailed prohibitive personal transaction costs. The net result of Apple's product redesigns was the erection of a "walled garden" that allegedly forced iPod consumers to use only iTunes for their music purchases.

At trial Apple argued that its upgrades were important product improvements which protected not only Apple but also its iPod customers from hacking which could corrupt the iPod's internal database by, for example, adding foreign files to it. The encryptions, it was argued, also protected the record company's copyrights as Apple was contractually obligated to do. The updates also added new product features unrelated to security including digital movie capability which were incontestably product improvements. To cap it off, Apple argued that if, as plaintiffs claimed, the security improvements locked consumers

into Apple's closed product ecosystem, it did so without prompting a single consumer complaint.

Plaintiffs argued that the encryption updates were not genuine product improvements at all. Rather than prevent corruption, they argued, the updates degraded the iPod software by magnifying small errors into huge ones in the process of stripping all data from iPods if iTunes were accessed. In plaintiffs' view the supposed security rewrites were naked acts of predation which, far from stopping hacking, had as their purpose and effect the destruction of competing online music sellers. In support of that argument, plaintiffs offered the testimony of Apple executives who admitted that the updates were at least in part designed to stifle music vendor competitors. For example, Steve Jobs, appearing posthumously by video deposition, testified that an early update iteration might indeed screw up the technical compatibility of RealNetwork's offerings but that was simply "collateral damage."

But was the damage inflicted on Apple's competitors merely collateral in the contemplation of the law? That was the question put to the jury in the Apple trial where the jury was instructed to determine whether the updates were genuine product improvements. If they were they cannot be considered anticompetitive however harmful to competitors. "A company has no general legal duty to assist

its competitors,” the trial court instructed, “including by making products interoperable” Nick Statt, *Apple Lawyer Sums Up iPod Antitrust Trial: “This is all made up,”* CNet (December 15, 2014), <http://www.cnet.com/news/apple-ipod-itunes-antitrust-closing-arguments>.

After two weeks of testimony, including the usual battle of experts over whether the redesigns were or were not genuine improvements, the jury ruled in Apple’s favor after only three hours of deliberation. One juror was reported in the press to have said “there was no smoking gun.”

The jury instructions in Apple followed the law mandated by the Ninth Circuit Court of Appeals in 2010. That court serves the western United States and its opinions bind trial courts within its jurisdictional reach. In *Allied Orthopedic Appliances Inc. v. Tyco Health Care Group LP*, 592 F.3d 991 (9th Cir. 2010) the Ninth Circuit held that if there is any evidence that a product redesign—however slight—is a genuine improvement it is not illegally predatory under Section 2. Tyco was a dominant manufacturer of patented pulse-oximetry systems. As its patent neared its expiration date, Tyco drew up a redesign for its monitor-and-sensor system that moved the system’s digital memory chip from the monitor to the sensor thereby making generic sensors incompatible. A group of competitors, including four rivals that had planned to begin manufacturing compatible generic

sensors, sued Tyco claiming that the redesign was simply a pretext for stopping sensor competition. But there was evidence that the Tyco redesign allowed Tyco to add new features to the sensors and to reduce switching costs incurred when a user decided to adopt a new type of sensor. In the appellate court's view, that evidence, if credited, was enough to insulate Tyco from liability under Section 2.

In weighing the merits of the plaintiff's claim, the court emphasized that, "[a]s a general rule, courts are properly very skeptical about claims that competition has been harmed by a dominant firm's product design changes." *Id.* at 998 (citing *United States v. Microsoft Corp.*, 253 F.3d 34, 65 (D.C. Cir. 2001)). Strongly differing with the famous *Microsoft* decision discussed below, the *Allied Orthopedic* court rejected the view that beneficial product redesigns by dominant players, however modest, should be balanced against anticompetitive harm in order to assess liability. As the Ninth Circuit put it:

There is no room in this analysis for balancing the benefits or worth of a product improvement against its anticompetitive effects. If a monopolist's design change is an improvement, it is "necessarily tolerated by the antitrust laws"

To weigh the benefits of an improved product design against the resulting injuries to competitors is not just unwise, it is unadministrable. There are no criteria that courts can use to calculate the "right" amount of innovation, which would maximize social gains and minimize competitive injury.

Id. at 1000(citing *Foremost Pro Color, Inc. v. Eastman Kodak Co.*, 703 F.2d 534, 545 (9th Cir. 1983)).

Since Tyco's redesigned sensor allowed for some improvements, the legal inquiry was at an end: its redesign did not, as a matter of law, violate the Sherman Act. The *Apple* jury instruction followed this binding precedent precisely.

The *Allied Orthopedic* holding is not uniformly accepted by American courts. It differs sharply from that adopted a decade earlier by the Federal Circuit Court of Appeals which has jurisdiction over any appeal in cases throughout the United States which involve patent claims. In *C.R. Bard, Inc. v. M3 Systems Inc.*, 157 F.3d 1340 (Fed. Cir. 1998), defendant Bard manufactured a biopsy sampling gun which relied on replaceable needles when operated over time. M3 manufactured identical replacement needles that were substitutes for Bard's needles. Bard put an end to that by redesigning its biopsy-sampling gun so that M3's needles were no longer interchangeable and thus, no longer usable as substitutes for Bard's needles. M3 then sued Bard under Section 2, basing its claim on the theory that Bard's purpose in modifying the gun was to make its rival's needles incompatible.

On appeal, the Federal Circuit adopted an analysis which seemingly hinged on the dominant player's intent. In the view of the court, "M3 was required to

prove that Bard made a change in its biopsy gun for predatory reasons, *i.e.*, for the purpose of injuring competitors in the replacement needle market, rather than for improving the operation of the gun.” *Id.* at 1382. The appellate decision noted that at least some evidence had been adduced tending to prove that Bard’s “real reasons for modifying the gun were to raise the cost of entry to potential makers of replacement needles, to make doctors apprehensive about using non-Bard needles, and to preclude the use of ‘copycat’ needles.” *Id.* In the trial court the jury found for the plaintiff. The appellate court affirmed holding that a jury could reasonably find that the redesign was anticompetitive based on the intent evidence alone. The *Bard* opinion thus invites trial courts to ask whether the claimed product improvement is, in reality, a pretextual mask for predatory innovation.

This heavy reliance on intent appears fundamentally inconsistent with traditional Section 2 jurisprudence. Intent evidence is at best not helpful and at worst misleading. It is, after all, the intent of any competitively energetic firm to prevail over its actual or potential rivals. Precisely the same intentions drive vigorous competition as those driving predatory exclusion. They are elemental to the “gale of creative destruction” inherent in capitalism as Joseph Schumpeter famously observed. Joseph A Schumpeter, *CAPITALISM, SOCIALISM AND DEMOCRACY* 84 (2nd ed. 1947). To be sure, the Supreme Court in 1966 held that Section 2 is concerned with the “willful acquisition or maintenance” of

“monopoly power.” *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

But subsequent cases have made clear that “willful” in this context means simply the perpetration of anticompetitive or exclusionary acts. It does not turn the inquiry into an assessment of intent, without more. At most intent evidence can serve as an aid in interpreting whether the effects of a challenged conduct are likely to harm consumer welfare. But nothing more. To quote the leading authority on American antitrust law:

Because courts and juries are generally incapable of addressing the technical merits or anticompetitive effects of innovation, they quickly make the relevant question turn on intent. We believe this is the worst way of handling claims that innovation violates the antitrust laws. . . . An antitrust rule permitting juries to sift through records pertaining to the firm’s intent cannot help but chill perfectly appropriate behavior that the antitrust laws are intended to encourage.

Phillip E. Areeda & Herbert Hovenkamp, *ANTITRUST LAW* 284 (3d ed., vol. 111B 2008)

With respect to product redesigns such “perfectly appropriate behavior” necessarily includes innovation which may harm rivals. Indeed, product redesigns are almost invariably intended to induce customers to substitute away from competing products. To put it bluntly, a dominant corporate Cain wants to kill its competitors whenever it innovates by product redesign. Intent in these circumstances is inherently ambiguous and should never be dispositive. If it were otherwise, Apple might have been dead in the water. But recall that the *Apple* jury

instruction asked only whether the software redesign at issue was a “genuine product improvement.” See Statt, *supra*. The Jobs testimony, although held relevant to that inquiry, might have produced a different result if the jury were instructed to consider intent consistent with the Bard opinion.

Perhaps the best known authority is *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001), an opinion of the influential Circuit Court of Appeals for the District of Columbia. There, the United States and several states sued Microsoft for monopolizing the Intel-compatible PC operating systems market by engaging in a host of acts intended to impede the ability of the then-popular Netscape Navigator browser from evolving into a cross-platform program which could compete directly with Microsoft’s Windows operating system. The government argued that Microsoft did everything it could to stop such an evolution. In particular, Microsoft effectively integrated its Internet Explorer browser into its operating system to the practical exclusion of all others. It did so by making three product changes:

(1) it eliminated the ability of computer manufacturers to remove the add/remove program function from Internet Explorer programs;

(2) it programmed Windows so that, when users chose to set internet browsers other than Internet Explorer as their default, Windows would sometimes override that choice; and

(3) it commingled Internet Explorer's code with Windows code so that any attempt to delete the files containing it would, at the same time, cripple the operating system.

The government claimed that these design choices protected Microsoft's monopoly from the perceived evolutionary threat posed by Netscape's browser which, when coupled with Sun Microsystem's Java software, could operate across all operating system platforms. To be sure, irrespective of these design choices consumers could download Navigator and make it their preferred browser but that was a slow and clumsy alternative which the government argued was not a true functional equivalent. Under the government's theory—accepted by both the lower and appellate court—Microsoft effectively preempted the most efficient way in which consumers could make browser choices and thereby insulated itself from potential operating system competition based on the Navigator/Java combination.

In addressing the legal issues, the court in *Microsoft* was sensitive to the concern that innovation might be deterred if it condemned the company's actions under too lax a standard. Accordingly, it applied a traditional Section 2 rule of

reason analysis which is often described as a balancing test. Unlike either *Allied Orthopedic* or *Bard*, the court adopted evidentiary burden-shifting as its analytical tool. The D.C. Circuit held that the initial burden rests on the plaintiff to show that the defendant's conduct caused an anticompetitive effect. If so—as it did in *Microsoft*—the burden shifted to Microsoft to show some procompetitive justification for its behavior. With respect to the add/delete requirement and the comingling of internet explorer code the court held that Microsoft failed to offer proof that the conduct served any function other than maintaining its monopoly in the operating system market. For those actions the inquiry was at an end. With respect to the browser override, however, the court held that Microsoft offered proof of valid technical reasons for the redesign. With respect to the code override, the burden then shifted back to the government to rebut the justification and show “that the anticompetitive effect of the challenged action outweigh[ed] it.” *Id.* at 67. But the government offered no rebuttal evidence. That redesign was thus legal under Section 2 whereas the add/delete and comingling redesigns were not.

It is important to note that while the *Microsoft* court engaged in a self-described balancing analysis, it actually balanced nothing. The process of burden shifting was sufficient to resolve the legal claims without any climatic balancing. Having no reason to do so, the *Microsoft* court gave no guidance on how the final

step – a balancing of pro and anticompetitive effects – might actually be struck. It remains to this day terra incognita since no other court has actually undertaken such balancing.

Consider how the *Microsoft* test might have been employed if it governed in *Apple*. Initially, the plaintiffs would have been required to show that Apple engaged in some facially exclusionary conduct. That it plainly did when it designed its products so as to close its technology to third parties. Consequently Apple would have then been required to adduce evidence that its product redesigns were justified. Apple did precisely that by offering evidence that the redesigns enhanced the security and the quality of the iPod/iTunes consumer experience while protecting copyrights. At that point in the balancing analysis the burden would have shifted back to plaintiffs who would have to rebut Apple’s showing by offering evidence that the claimed benefits of the redesign could have been achieved by alternative code choices which did not have an overly restrictive exclusionary effect. At this point the *Microsoft* court formula invites—nay, requires—balancing of the competition pros and cons. But how is that to be done? As the Ninth Circuit in *Allied Orthopedic* exclaimed in rejecting the *Microsoft* precedent, there simply is no criteria a court can use to calculate the “right” amount of innovation which maximizes social gain with the minimum of competitive injury. *Allied Orthopedic*, 592 F.3d at 1000. A slight improvement today may be

the seed of a major technological advance but it may never be allowed to flourish if it is condemned because its exclusionary effects are thought to outweigh its creativity. Consumer welfare can only be the loser in this uncertain game of balancing.

In my view, the *Microsoft* test is not only unadministrable as the Ninth Circuit held but also unwise. It pretends that the trier of fact—in the United States oft-times a lay jury as in *Apple*—can actually comprehend how the balance is to be struck but without any meaningful instruction on how to do it. This seems particularly insidious in software cases where the jury will inevitably be treated to dueling expert testimony concerning arcane code choices that might or perhaps should have been employed to lessen competitive harm. The reality is that any trier of fact, but particularly a jury, will do the one thing which it is capable of doing: it will decide the case based on its view of the monopolist's intent. As noted above, that is the worst of all possible worlds, but the likely end game in a balancing exercise. For a contrary view, see John M. Newman, *Anticompetitive Product Design in the New Economy*, 39 Fla. St. U.L. Rev. 681 (2012), and Jonathan Jacobson et al., *Predatory Innovation: An Analysis of Allied Orthopedic v. Tyco in the Context of Section 2 Jurisprudence*, 23 Loy. Consumer L. Rev. 1 (2010).

Given the jurisprudential options on offer, I think the *Apple* court got it right. Following the *Allied Orthopedic* opinion as it was obligated to do, it gave no instruction authorizing a finding based on intent. In the Ninth Circuit, that omission cannot be error though in time-honored American tradition the plaintiffs have announced they will appeal. To be sure, the *Allied Orthopedic/Apple* instruction arguably leads to an uncritical overprotection of predatory product redesigns inspired by the desire to foster innovation and avoid judicial second guessing of real world business decisions. But in my view there is no practical alternative. If the thumb on the scales of justice weighs heavily in the defendant's favor it is right and just that it does so.

A legal paper cannot be complete without a footnote, of course. Here is mine. Whether Apple had sufficient market power to slay its competitors by whatever product improvements it made was reserved for later trial if such proved necessary. Had the issue been tried, Apple had a fair and perhaps compelling argument that it had no such power. While the iPod was certainly the dominant means of accessing downloaded music during the September 2006 to March 2009 class period, its pride of place in the market was already being threatened by substitutes—most notably the new smartphones. Whatever Apple's market power it was not durable. And that is key. As the court observed in *Geneva Pharmaceutical. Technology Corp. v. Barr Laboratories, Inc.*, 386 F.3d 485, 509

“a transitory advantage does not significantly harm competition. . . .” And as explained in Areeda & Hovenkamp, *supra*, at 110, “transitory market power however may safely be ignored by antitrust law. The social costs of antitrust intervention (including its error potential) are likely to exceed the gains when market forces themselves would bring the defendant’s power to an end fairly quickly.” That is precisely what happened with the iPod. Its innovative first-mover advantage did not translate into even medium-term monopoly power sufficient to violate Section 2. As events played out after 2009, competition compelled Apple to abandon its closed ecosystem and open the iPod to competing music offerings. Ultimately in 2014 Apple buried the iPod Classic (but not the Touch versions) because new and better technology was on offer including that from Apple itself. The Classic iPod’s death came at the tender age of 13.

One lesson taught by the iPod saga might be that innovative products unprotected by patents are seldom capable of monopolizing a technological market. Ironically, *Microsoft*, whose operating system’s dominance lasted over 30 years, may be the exception which proves the rule.

As for me, I have mothballed my iPod in favor of an iPhone 6 which is quite marvelous.