

Antitrust in a Technology Economy: What's New and What's Not

by Thomas B. Leary*

The title of this speech is intended to convey a certain skepticism about claims that ordinary antitrust principles cannot be applied to so-called "high-tech" industries. The basic thesis is that what we call high-tech industries today may (or may not) have some special characteristics but they are not unique. The products may be new but the problems are not.

First, it is not clear what industries should be included in the high-tech category. Second, those industries that most people would call high-tech do not necessarily have the same competitive characteristics. Third, some characteristics specifically associated with the high-tech sector also are seen in industries that no one would define as high-tech. It is, therefore, more useful to focus on the characteristics themselves than on the technical sophistication of the products or services.

A number of other speakers at this Conference will focus on specific antitrust issues and analyze specific decisions. This talk will not do that; it will rather provide a broad overview, and invite a fresh look at antitrust in the high-tech world.

* Commissioner, Federal Trade Commission. This is a written version of the speech delivered on June 6, 2003, at the Stanford Conference on Antitrust in the Technology Economy, jointly sponsored by the ABA Section of Antitrust Law and Stanford Law School. As always, the views are my own and not necessarily shared by any other Commissioner.

I. The Definition of “High-Tech”

If we are trying to assess whether antitrust principles work well for high-tech industries, it is important to know what industries we are talking about. Most of us would probably agree that the computer and the life sciences industries, prominently featured on the Conference program, are high-tech - - but we might not agree on the reasons why. I am not sure that there is a simple test to differentiate the high-tech sector from other sectors of the economy.

One simple test might be to apply a “stupefaction index,” and ask whether an industry provides things that would boggle the minds of our ancestors. The computer and life science sectors pass this test, but so do a lot of others. Consider the aerospace industry. I am myself still stupefied by the fact that we have sent men to the moon or a camera to Neptune, and the sector is so high-tech that we lose the capability to do these things once we stop doing them.¹ But, aerospace is not usually included in discussions of high-tech and antitrust.

Alternatively, it could be argued that the most stupefying aspect of our society is the evolution of wireless electronic transmissions. Many of you have in your pocket a small device that will allow you to converse with people thousands of miles away. Beyond that, even an apparently empty room is suffused with invisible waves that contain enough information for a receiver to replicate the sights and sounds of a speech in Washington or a battle fought halfway

¹ I am informed that it would take several years to recreate the capability to send people to the moon, if we wanted to do it again.

around the world or, for that matter, an expedition to the moon. The information is not in the receiver, it is in the air that we breathe! Yet, this technology is not usually included in discussions of high-tech and antitrust.

There may be less subjective ways than a “stupefaction index” to define high-tech. Some might say that the defining characteristic of a high-tech product is that it leapfrogs ahead and changes the competitive landscape overnight. By this standard, the invention of printing might have been the most significant high-tech development in history. The introduction of rail, auto and air transportation also ranks high, as do anesthesia and antibiotics, and each could surely be called high-tech in its day.

However, the competitive landscape can also be profoundly affected by other factors that are not related to advanced technology alone. Think, for example, of the changes wrought by wars and national emergencies² or cultural factors like the dramatic changes in the status of women and abrupt variations in consumer tastes.³ We do not often hear suggestions that existing antitrust principles are unable to accommodate these developments.

Perhaps it would be more profitable to abandon the attempt to define high-tech and rather focus directly on the competitive characteristics of at least some high-tech industries.

² Conflict in the Middle East and gasoline shocks in this country, not technology, changed the face of the auto industry.

³ Research might show, for example, that sales of men’s hats collapsed suddenly in the early 1960s because President Kennedy did not wear them.

II. Competitive Characteristics of High-Tech Industries

(1) Supply-Side Issues

The industries featured in this Conference are characterized in large part by relatively high fixed costs and relatively low marginal costs. The development of computer software or pharmaceutical products requires an immense up-front investment in research and development, which may or may not pay off. Thereafter, the costs of production and distribution range downward from small to virtually nothing. This is also true, however, of many industries that most people would not consider high-tech today. Railroads and airlines share the need for large up-front investments, and oil exploration or publishing share the combination of high investment and particularly high risk. The entertainment business may or may not require a large up-front investment but assuredly carries a high risk.

Activities of this kind, whether high-tech or not, have a number of characteristics that are significant for antitrust:

- Prices will not and cannot be set at marginal cost. Prices in excess of costs are to be expected and they are not evidence of a competitive abnormality.

- It is difficult to apply a cost-based standard for predation. This is not to say that objective standards like the so-called “Areeda-Turner” test should be jettisoned but more sophisticated measures of cost will have to be developed.⁴
- “Normal” collusion is unlikely to succeed for long. The temptations to cheat are strong, and price wars are endemic. At the same time, however, there are also strong pressures to make the attempt.
- Attrition rates are high and entry is expensive and unpredictable. At the extreme, this cost structure could lead to a natural monopoly that would prevail until another leapfrog technology emerges.

(2) Demand-Side Issues

In addition to cost or other supply-side effects identified above, some high-tech industries are arguably subject to so-called “network” effects - - a demand-side phenomenon. In an industry characterized by network effects, goods or services become progressively more valuable as more people buy them.

⁴ See Thomas B. Leary, *The Need for Objective and Predictable Standards in the Law of Predation*, Speech before Steptoe & Johnson and Analysis Group/Economics 2001 Antitrust Conference, Washington, D.C. (May 10, 2003), available at <http://www.ftc.gov/speeches/leary/learyneedforobjecandpredic.htm>. The Justice Department’s unsuccessful effort to apply more sophisticated measures in *American Airlines* may have been prejudiced by the presentation of multiple alternative theories. *United States v. AMR Corp.*, 335 F.3d 1109 (10th Cir. 2003).

These effects are not, even as a matter of theory, significant in all high-tech industries. Software products may well be more valuable to each customer as more and more customers buy them, but pharmaceutical products probably are not. Moreover, network effects are not confined to the high-tech sector. The archetypal example is a telephone exchange, which is probably not considered high-tech today. The same could be said of credit cards.

Industries like this could also theoretically lead to a condition of natural monopoly, as the offerings of the industry leader becomes progressively more attractive. However, there are serious questions about the predictive power of the theory. For example, the Betamax technology should theoretically have had a network advantage over VHS and Apple should have had a network advantage over Microsoft. People may say that bad business decisions trumped the network effects in these situations, but that is just another way of saying competition worked as it should.

The potential for network effects is something that may need to be considered in an individual case but it is unlikely to be determinative by itself and, in any event, is not a unique characteristic of high-tech industries.

(3) Competition for Monopolies

These supply-side or demand-side effects, or a combination of the two, have caused some to argue that monopolies are normal in the high-tech sector, but that they should not be viewed

with alarm because the sector evolves so rapidly.⁵ I am not sure that either statement is necessarily true and, to the extent it is true, I am not sure that the phenomenon is confined to the high-tech sector (whatever that is).

Many businesses that sell differentiated products, services or “experiences”⁶ attempt to find some niche where they offer something that is uniquely attractive - - at least, to some people. The ability to enjoy some transient market power is not associated only with high-tech industries. Perhaps the most conspicuous low-tech examples are found in various sectors of the immense entertainment industry. Super Bowl advertising could probably be defined as a separate “market” under standard Guidelines tests, and whoever controls the gateway has a lot of market power. But, should we care?

There are serious unresolved antitrust issues about the appropriate way to deal with this kind of “power,” which is probably becoming increasingly common in our society. We have to decide the point at which a niche becomes important enough to be treated as a “market” that is capable of being monopolized. There are issues of this kind in the high-tech sector but the problem extends far beyond it.

⁵ See, e.g., Richard A. Posner, *Antitrust in the New Economy*, 68 *Antitrust L.J.* 925 (2001).

⁶ See Thomas B. Leary, *The Significance of Variety in Antitrust Analysis*, 68 *Antitrust L.J.* 1007 (2001).

(4) Standardization Issues

The establishment of standards is obviously a significant activity in many industries that most would consider high-tech, and the activity has the potential both to expand opportunities for competition or to restrict them. Interfaces, for example, can be designed to include or to exclude. But, once again, standard setting is neither a defining activity for high-tech industries nor confined to them. (Standard package sizes that facilitate consumer comparisons may be competitively significant for the most mundane products.)

There is a wealth of established learning about the appropriate way for competitors to undertake standard-setting activities. Antitrust counselors have advised for years that it is important to set standards objectively, to avoid favoring “insiders’ at the expense of “outsiders” and to provide some rudiments of “due process.” This advice is good in a high-tech as well as a low-tech environment.

There are two pending cases in the high-tech arena that are somewhat unusual. In the traditional case, the standard-setting body is dominated by companies with a vested interest in the “old” technology, who are trying to freeze out maverick companies with a “new” technology.⁷ However, in both the *Rambus*⁸ and the *Unocal*⁹ cases, now pending at the

⁷ See, e.g., *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988).

⁸ *Rambus Incorporated*, Dkt. No. 9302 (June 18, 2002), *complaint available at* <http://www.ftc.gov/os/adjpro/d9302/020618admincmp.pdf>.

⁹ *Union Oil Company of California*, Dkt. No. 9305 (March 4, 2003), *complaint available at* <http://www.ftc.gov/os/2003/03/unocalcmp.htm>.

Commission, the respondents are the companies with the more advanced technology. The complaint is that they misled the standard-setting bodies about their patent positions and, as a result, standards were adopted that would require payment of substantial royalties.

Since these matters are in administrative litigation, I obviously cannot comment on the merits, but the cases are examples of special concerns that might arise in a high-tech setting. They are also unusual in that the predicate offense charged is deception - - a claim that is normally associated with the Consumer Protection wing of the Commission.¹⁰

(5) The Importance of Intellectual Property

Intellectual property rights can obviously be important in some high-tech industries, and the interface between antitrust law and patent law is a subject of ongoing controversy. The FTC has recently heard the views of about 300 people on these issues, in a series of hearings that extended over 24 days in total. The FTC recently issued a massive report,¹¹ and the subject is too large to address in a short segment of a short speech. I will simply summarize some views which I have expressed at greater length on other occasions.¹²

¹⁰ The cases are unusual in this respect but not unique. For example, if two companies openly join forces to bid on a project, it is usually benign. If, however, they collaborate in secret, it is usually *per se* illegal. Customers were deceived into thinking they were getting competitive bids.

¹¹ *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, A Report by the Federal Trade Commission (October 2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.

¹² See, e.g., Thomas B. Leary, *Antitrust Law as a Balancing Act*, Remarks before Tenth Annual Seattle Computer Law Conference, Seattle, Washington (Dec. 17, 1999), available at <http://www.ftc.gov/speeches/leary/leary991217.htm>; Thomas B. Leary, *The Patent-Antitrust*

- Both antitrust law and intellectual property law share the same goal of encouraging innovation. They may proceed in opposite directions, however, since antitrust law may attack conduct that confers short-term benefits out of concerns for long-term harm while intellectual property law may tolerate short-term harm in order to provide long-term benefits. Hence, there can be tension between the two, in particular cases.
- There is no objective way to balance these competing considerations, and risks of over-enforcement or under-enforcement are present in both regimes. This has always been true and likely will always continue to be true.
- Agency Guidelines¹³ continue to provide a viable framework for analysis of these issues, but individual cases can be very hard to decide.

III. Conclusion

In conclusion, it is not particularly helpful to focus on the distinction between “high-tech” and “low-tech” industries. High-tech industries are not all alike and, to the extent that they may have special competitive characteristics, they share them with some low-tech industries.

Interface, Remarks before the American Bar Association Section of Antitrust Law Program, “Intellectual Property and Antitrust: Navigating the Minefield,” Philadelphia, Pennsylvania (May 3, 2001), available at <http://www.ftc.gov/speeches/leary/ipspeech.htm>.

¹³ United States Dep’t of Justice and Federal Trade Comm’n, Antitrust Guidelines for the Licensing of Intellectual Property (1995), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 13,132.

Antitrust enforcement has become increasingly pragmatic and fact-intensive but traditional antitrust principles can work in new settings. As always, however, we must recognize that reasonable people can differ about how they should be applied in particular close cases.