The Middle Way on Applying Antitrust to Information Technology

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Antitrust and the information technology ("IT") industries are back in the headlines. It almost feels like 1999 again.[2]

It isn't just the Obama Administration turning up the heat; IT was getting a lot of attention at the end of the George W. Bush Administration. The U. S. Department of Justice ("DOJ") blocked the Google-Yahoo deal and the Federal Trade Commission ("FTC") was in hot pursuit of Rambus, Qualcomm, Intel, and other IT firms. There's a resurgence of interest because IT has grown in significance over the last decade, and because several firms have become dominant in their categories.

The old debate about whether IT raises new issues for antitrust has come back as well. That is the subject of the conference for which this article was initially prepared. I conclude the following:

> Antitrust analysis ought to account for special features of IT—just like it ought to account for special features of any industry under consideration. But there's no particular reason to focus additional antitrust resources on this sector. There is also no particular reason to add it to the sorry list of industries that have finagled an antitrust exemption. Antitrust policy towards information technology is interesting mainly because it helps surface broader questions concerning how we do antitrust.

Let's begin at the beginning: Is there anything special about the information technology industries? If not we can move on to another topic. To answer that question we need to ask: Special compared to what? If we take either manufacturing industries or the textbook model of perfect competition as benchmarks, the answer is clearly yes. Although there's lots of variation across IT industries, many of the really successful IT firms tend to have several of the following special characteristics:

- On the cost side, they often have significant scale economies. A lot goes into producing the first unit by way of capital investment or risk taking. But then it doesn't cost much to produce subsequent units.
- On the demand side, these firms tend to have significant network effects. As they grow, they become more valuable to their users.
- Many of the leading information technology businesses are multi-sided platforms or what's often called "two-sided markets." They create value by bringing two or more groups together. At their beginning, they have a chicken and egg problem to solve; they have to devise a pricing structure that gets both sides on board and gets them to interact. In practice this means setting low or negative prices for the benefit of one side: Microsoft and Yahoo provide rewards to people that use them for search; Facebook doesn't charge

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[2] For a related discussion of antitrust and information and technology see David S. Evans & Richard Schmalensee, 2002. "**Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries**," NBER Chapters, in: Innovation Policy and the Economy, Volume 2, pages 1-50 National Bureau of Economic Research, Inc.

to post profiles; and most of these businesses provide free help to developers to encourage them to write applications.

- Dynamic competition is important in many parts of the information technology sector. Some firms compete to create a new market—or a new category. We forget about the many, many firms that competed to create social networks, video sharing sites, computer operating systems, and so forth—and then died off.

- Many IT firms engage in innovation competition to create advantages over their rivals. Just take a look at browsers, smart mobile phones, search advertising, and others. Not surprisingly, information technology businesses tend to rely a lot on intellectual property.

Thus, many information technology businesses are different from most traditional manufacturing businesses—and from the widget maker in college micro-economics. But the features I've just described are hardly unique to IT. Many industries that started in the 19th and early 20th centuries were based on multi-sided platforms, including payment cards, media, exchanges, matchmakers, and many more. Other long-standing industries have cost- and demand-side scale economies, including railroads, telegraph, telephone, exchanges, and newspapers. And all industries have dynamic competition to some degree. We've had waves of creative destruction throughout history, including many that rival the disruption that Moore's Law[3] and the internet have caused. What makes IT special is that scale economies in demand and supply, two-sided markets, intellectual property, and dynamic competition are *all* important for IT.

Given that there is, at least arguably, something special about IT, let's consider two sharp forks in the road.

The first is the argument that we ought to devote a lot of antitrust resources to the IT industries. That's because they are important to the economy—and because network effects result in firms obtaining monopoly power. There are at least three factors that counsel for being careful about beating up too hard on IT.

1) First, consumers benefit from the scale effects that often give rise to antitrust concerns. Take the iPhone which is a two-sided platform. Apple has created a virtuous circle between users and application developers. There are more than 40 million Apple iPhone and iPod touch (which is the iPhone without the phone) users and more than 100,000 thousand applications that can be used on either device. Those applications make these devices valuable to the users and the users make the the iPhone a valuable platform to developers for introducing innovative applications. We should be careful not to penalize firms for their success in creating two-sided markets or otherwise nurturing network effects. The same practices that result in barriers to entry result in enormous social welfare.

2) Second, the complexity of these sorts of industries make errors more likely, and the existence of network effects can make the costs of those errors higher. The features I discussed above result in business models that depart from the textbook model of competition that antitrust is most comfortable with. I mentioned that many of these IT industries are two-sided markets. Economists just started studying these kinds of markets a few years ago and it is very clear we have a lot to learn. So we run a risk of antitrust condemning practices without really having any firm basis for knowing whether they are pro-competitive or anticompetitive. Mistakes that prevent firms from harvesting network effects or optimizing the value of a multi-sided platform harm

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[3] Moore's Law describes the long-term trend in the computer industry where the number of transistors that can be placed inexpensively on an integrated circuit has doubled approximately every two years.

consumers directly. Much of the value of the product is coming from direct and indirect network effects.

3) Third, it appears dominant IT firms get displaced pretty regularly and often from surprising directions. Many people thought Digital Equipment Corporation was a competitive threat to IBM in the mid 1970s, but few would have identified Microsoft as an even greater threat when it originated in 1976. A decade ago no one conceived of Google—which was started in 1998 as a competitive threat to Microsoft—achieving its current stature; it didn't seem plausible that the threat to Microsoft would come from a company that made its money from search-based advertising. People now talk about Facebook as being a threat to Google. My guess is that Google will face a threat a decade hence that no one has thought about.

These three factors argue against antitrust skewing enforcement efforts towards the information technology industries.

There's the other fork in the road though. Some people would argue, in fact, that we should go in the opposite direction: Keep antitrust out of information technology altogether or at least apply a very light hand to it. That also goes too far.

First, there's a tendency to suggest that antitrust doesn't account for dynamic competition. I believe that's wrong. It's well known that consumers cannot simultaneously get the benefits of static competition's low prices and dynamic competition's innovations. Public policy towards intellectual property has recognized that for centuries. But almost through its entire history antitrust law has handled this tension well. Antitrust has struck a balance; it's alright to obtain a monopoly to enjoy the fruits of that monopoly. And we have seen plenty of firms rise to prominence and make a great deal of money. This balance was struck a couple of decades after the passage of the Sherman Act and has been a cornerstone of U.S. antitrust practice ever since.[4] There are some worrisome signs that it is under attack, but for now it is settled law.[5] We can still debate whether the antitrust laws discourage dynamic competition, but given the balance that's been struck, we're talking about marginal differences.

Second, as far as I know there's no reason to believe that dominant firms in the information technology industries are less able or have fewer incentives to engage in anticompetitive practices than dominant firms in other industries. Some of the work Dick Schmalensee and I have done highlights the importance of reaching critical mass in two-sided industries.[6] Two-sided markets are like exchanges—firms need enough liquidity for a viable platform. To ignite one of these businesses you need to reach a critical mass of customers on both sides. We should probably be a bit concerned about business practices that deny rivals critical mass. As the two-sided literature advances, we'll uncover other concerns.

I have argued for a measured approach for antitrust policy towards the information technology sector—one that doesn't worry excessively about these industries but still doesn't treat these industries more lightly that others. All of the features I mentioned are important ones for antitrust to take into account in any industry where they are present.

There is a real problem for IT and antitrust that does need to be addressed. As we've seen for three generations, IT firms, perhaps more so than in any other industry, use antitrust as a competitive weapon. The most successful company becomes a whipping boy for antitrust regulators. And competitors invest modest sums to egg the regulators along. There is no better

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[4] David S. Evans & Keith N. Hylton, *The Lawful Acquisition and Exercise of Monopoly Power and its Implications for the Objectives of Antitrust*, 4(2) COMPETITION POL'Y INT'L 203, (Autumn 2008).
[5] Jonathan Baker, *'Dynamic Competition' Does Not Excuse Monopolization*, 4(2) COMPETITION POL'Y INT'L 243, (Autumn 2008).
[6] David S. Evans & Richard Schmalensee, *Failure to Launch: Critical Mass in Platform Businesse*s, (March 1, 2009), *available at* SSRN: http://ssrn.com/abstract=1353502, (last viewed 11/19/09).

investment than spending a few million dollars on lawyers and economists to make your rival life's miserable.

I'm not denying that there were legitimate antitrust issues to ponder, but IBM management's spent far too much time concerned with antitrust and not with innovation in the 1970s;, Bill Gates and other senior executives at Microsoft were essentially taken out of action for a good part of the late 1990s and early 200s. Now, it looks like some are determined to make Google the next target.

This is Tonya Harding-style competition.[7] If I can't win in the playing field maybe I can get someone to break my opponent's legs. And it has gotten worse; Tonya can now go to powerful competition authorities around the world to get their help in hobbling her competitors. To my mind this is the biggest problem facing the IT sector when it comes to antitrust. The antitrust authorities should keep a watchful eye on anticompetitive behavior. They should avoid becoming "Tonya-agents" and should consider whether antitrust should target, as aggressively as it has done in the past, the IT leader of the day.

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[7] Tonya Harding was an Olympic skater. In the 1994 U.S. figure-skating championship, Harding's husband attacked and injured Tonya's primary competitor (Nancy Kerrigan) in a failed attempt to keep Kerrigan from competing against Harding in the Olympics.