COMPETITION IN THE EVOLVING DIGITAL MARKETPLACE

HEARING

BEFORE THE

SUBCOMMITTEE ON COURTS AND COMPETITION POLICY

OF THE

COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

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SEPTEMBER 16, 2010

COMPETITION IN THE EVOLVING DIGITAL MARKETPLACE

THURSDAY, SEPTEMBER 16, 2010

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS AND
COMPETITION POLICY
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:04 a.m., in room 2141, Rayburn House Office Building, the Honorable Henry C. "Hank" Johnson, Jr. (Chairman of the Subcommittee) presiding.

Present: Representatives Johnson, Conyers, Gonzalez, Watt, Quigley, Maffei, Polis, Coble, Issa, Harper, and Smith.

Staff present: (Majority) Christal Sheppard, Subcommittee Chief Counsel; Anant Raut, Counsel; Rosalind Jackson, Professional Staff Member; (Minority) Sean McLaughlin, Chief of Staff and General Counsel; Stewart Jeffries, Counsel; and John Mautz, Counsel.

Mr. JOHNSON. This hearing of the Committee on the Judiciary, Subcommittee on Courts and Competition Policy will now come to order. Without objection, the Chair is authorized to declare a recess.

Today's hearing is entitled "An Antitrust System for the 21st Century," and in today's hearing we will explore a number of competition issues in the digital marketplace. But first, I would like for us to kind of go out of order today as far as the Member opening statements are concerned. At the request of the Ranking Member Coble, he is going to give his statement first, and I will follow.

Mr. COBLE. Mr. Chairman, I thank you for that. I have a dermatology appointment, so I will go let him break out his blowtorch and submit to my face, and I will be back in due time. And I thank you, Mr. Chairman.

Mr. Chairman, when we last met in July, I made the observation that given the impact of antitrust law on the American economy, it is vital that we examine how well these laws are working, particularly in light of the innovation that today's high-tech economy has brought.

Today we have an opportunity to examine what level of antitrust enforcement is appropriate in the evolving digital marketplace. This evolving digital marketplace includes new products such as smartphones and the apps that run on them to new services such as mobile advertising.

It includes old businesses such as publishing companies, which are trying to break into new platforms such as tablet computers

like the iPad, and it includes new companies like many of the small software developers that are writing the apps for smartphones.

These new technologies offer a wealth of opportunities both for individuals and for the economy as a whole; however, they also pose challenges. For this hearing the principal challenge is how to ensure that these companies are competing rigorously and fairly. Full and fair competition yields benefits for all consumers in the form of lower prices, higher quality and greater supply of goods.

Our witnesses today will discuss the relative benefits of aggressive antitrust enforcement in these developing markets. They will also discuss whether some types of potentially anticompetitive conduct, such as vertical mergers, are particularly worrisome in this new marketplace.

I am in favor of strong antitrust enforcement, Mr. Chairman, because I think it helps to ensure competitive markets. However, I am aware that some scholars are concerned and worry about the impact of aggressive enforcement on developing markets, particularly whether such enforcement slows new innovations.

While this is an antitrust hearing, I would be remiss if I did not address some of the concerns that arise from these new digital markets and services. How, for example, do existing copyright holders ensure that their rights are protected in this new digital marketplace? How do companies use our private information, information, I might add, with which people willingly part with—with which they willingly part on social networking sites, to make a profit?

These copyrighted privacy concerns may not be competition concerns per se, but they are important issues that we as policymakers need to be aware of. And for the purposes of this hearing, I am curious to what extent, if any, these other values could be or should be a part of our antitrust analysis.

I look forward to hearing the witnesses today and yield back the balance of my time. And, Mr. Chairman, again I thank you for the courtesy, and I will return imminently.

Mr. JOHNSON. Thank you, Representative Coble, and we look forward to your return. And you are taking the gift that you brought for me with you—— [Laughter.]

And I guess that means that you shall return——

Mr. COBLE. I shall return.

Mr. JOHNSON [continuing]. With a bigger gift. [Laughter.]

First, ladies and gentlemen, thank you. We start this hearing on a fundamental question critical to this Subcommittee's jurisdiction, and that is what should be the role of antitrust law in emerging industries?

The reason why we have antitrust laws in the first place is that competition without any restraints can harm consumers. When companies compete against each other for market share, they innovate, and that keeps prices low, and consumers win. When companies eliminate their competitors, consumers lose, because the companies use their dominance to fatten their bottom line.

Now, we have heard a number of people argue that there should be less antitrust enforcement in emerging technologies. These markets are constantly changing, they argue. The company on top today may in fact be gone tomorrow. They say that enforcing the

antitrust laws too strictly in these markets will only discourage innovation and new competitors. Then again, too little innovation could have just the opposite effect.

Companies that jump out to an early lead in their fields could establish the default standards for their new technologies or become that go-to spot for both users and advertisers, making it more difficult for later entrants to crack into the market.

The fact is you can't rely on industries to police themselves. Ten years ago Congress took the leash off of Wall Street. Everyone assumed that the banks would compete more vigorously with each other and wouldn't do anything to endanger themselves or the market.

Just the opposite happened. The banks got so caught up in trying to beat the other banks that they ended up bringing down the whole system, wiping out hundreds of billions of dollars in the average person's savings retirement incomes and pensions.

In my opinion antitrust enforcement needs the balance. It is like holding the reins of a horse. Hold them too tightly and the horse stops, or the horse may even buck. And if you hold those reins too loosely, then the horse goes out of control.

This issue is at the heart of the markets that will be discussed today. Should antitrust enforcers stand back and let these markets play themselves out, or are these markets in danger of losing the spirit of competition that has marked their early stages?

I, for one, don't want businesses to fear our actions today. The role of government should be to foster competition and drive economic growth, not stand in the way of business. We want to partner with businesses, not be their nanny. To that end if businesses are concerned about anticompetitive practices in their industries, I want them to know that my door is always open.

Earlier this week, I heard from a constituent, Will Seippel, president of WorthPoint, an Internet startup at Georgia Tech located near my district. And Mr. Seippel is a resident of my district. He raised concerns with me about how his company's position has fallen in Google search results over time. But I don't want to turn today into a forum for Google bashing. I want to help Mr. Seippel and Google work together to resolve their differences, with Congress taking the least intrusive role possible.

Just as importantly, we need businesses to come forward and help to shape good policy when we ask. I look forward to delving into these questions and many others over the course of this hearing.

And I thank Mr. Coble for his statement.

At this time I will recognize the Honorable Mr. Conyers, a distinguished Member of the Subcommittee and also the Chairman of the full Committee.

Mr. CONYERS. Thank you very much, Chairman.

And I welcome all of the witnesses.

The attendance here by our visitors indicates that they, too, recognize this is a very important hearing today, but it is also part of a continuing series of hearings that are going to occur on the subject. Would that one hearing could take care of a subject of this complexity.

Well, this market is evolving so rapidly that what we say here today and what is said here today may in fact be obsolete at the close of the business day today. That can happen.

We have got a number of interesting witnesses. I commend you on the diversity of the panelists that you have invited to join us for this hearing, and I look forward to their comments.

The only thing I would add—and I will put my statement in the record—is that the online and mobile advertising space is too concentrated and is even getting more so as we speak. This is not an anti-Google remark that I am making.

Secondly, antitrust law needs to evolve to fit the digital world, where vertical acquisitions are even more worrisome than before. And it is important to consumers that various products designed to access online content work together to the greatest extent possible.

Now, somewhere along the line, maybe even starting today, we are going to begin to put together an encyclopedia of where all this digital computerized Web page, Web site, all of these things are going to have to come together with a little bit more—they will have to fit together more than they have in the past.

Right now, and I think there is going to be a remark or two about this, but there are some unleashed forces running around in the subject matter that have to be acknowledged and determine how they are going to be controlled. And I am hoping that some parts of that issue will come out in the discussion that goes on today.

And I thank again the Chairman and the Ranking Member for bringing us together in this way.

Thank you, sir.

Mr. JOHNSON. Thank you, Mr. Chairman.

I will now recognize Mr. Lamar Smith, the distinguished Ranking Member of the full Committee and also a Member of this Subcommittee.

Mr. Lamar Smith?

Mr. SMITH. Thank you, Mr. Chairman.

America is undergoing a revolution in the way that it conducts business. In the late 1980's computers became commonplace office machinery. The late 1990's and early 2000's saw the explosion of the Internet and the growth of e-commerce.

Today the revolution is fully mobile and has moved to the phones we carry everywhere. These phones, which are actually small computers, have the capability to send e-mails, play videos, surf the Internet, give directions and make purchases, all while the user is in motion.

Indeed, smartphones have created a marketplace for software, the App Stores, which did not even exist 2 years ago. The app developers in turn are creating new and innovative ways to utilize smartphones far beyond what their creators imagined. They enhance consumer welfare, provide new markets for goods and services and ultimately, of course, could help create jobs.

However, new markets and business models also raise questions about how companies are competing and whether their actions are pro-competitive or anticompetitive. This hearing is an excellent opportunity to take a high-level view of the developing industry still

in its infancy and ask what level of antitrust enforcement is appropriate.

I am a believer in vigorous antitrust enforcement. I believe it leads to more competition, lower prices, more choices and better products for consumers. However, antitrust enforcement is not without risk. Over enforcement, whether through the antitrust agencies or the private bar, can deter business practices that would ultimately help consumers. On the other hand, under enforcement could allow companies to become firmly entrenched through anticompetitive practices that hurt their rivals and ultimately hurt consumers.

Today's hearing is for general oversight purposes, and the witnesses will discuss these issues in general terms. However, it would be ignoring the obvious if I didn't observe that this hearing appears to be intended to address the business practices of two companies, Google and Apple.

Apple recently made headlines because it changed the rules it imposed on app developers to address concerns that the previous rules might diminish competition. Apple was able to resolve this issue without the parties resorting to litigation and without government intervention. Innovative products and services, after all, are rarely created in the courtroom.

With respect to Google, much has been made about its recent acquisitions of a mobile advertising platform and a travel search platform. I think an antitrust review of these transactions by the agencies is appropriate. That is what antitrust laws are for.

However, just because a company is big does not mean it is bad. Just because it enters into new lines of business does not mean it is going to dominate those new markets. And just because competitors complain about the practice does not mean that it is necessarily anticompetitive.

However, it is equally important that antitrust enforcers and policymakers keep their eyes on these developments to ensure that they do in fact benefit consumers. So I think this hearing is a very useful beginning to that end and to help us gain a better understanding of that process.

And with that, Mr. Chairman, I yield back.

Mr. JOHNSON. Thank you, Congressman. I thank you for your statement.

There being no other Members who have statements that they would like to give at this time, I will include statements in the record.

I am now pleased to introduce the witnesses for today's hearing. Our first witness is Rich Feinstein, director—is it Feinstein or—okay. Rich Feinstein, director of the Bureau of Competition for the Federal Trade Commission.

Welcome back, sir.

Our next witness is Ed Black. Mr. Black has served as president and CEO of the Computer and Communications Industry Association since 1995.

Welcome back, sir.

Next we have Mr. Morgan Reed. Mr. Reed is the executive director of the Association of Competitive Technology.

Welcome, Mr. Reed.

Our next witness is Scott Cleland. Mr. Cleland is the president of Precursor, LLP and the operator of Googlopoly—excuse me, Googlopoly—googlopoly.net, a blog.

Welcome, Mr. Cleland.

Next we have Mr. Geoff Manne. Professor Manne is the executive director of the International Center for Law and Economics at Lewis & Clark Law School.

Welcome, Professor.

And finally, we have Dr. Mark Cooper. Dr. Cooper is the director of research for the Consumer Federation of America and has appeared numerous times before the Congress to provide a consumer's perspective.

Welcome back, Dr. Cooper.

Thank you all for your willingness to participate in today's hearing. Without objection, your written statements will be placed into the record, and we would ask that you limit your oral remarks to 5 minutes. You will note that we have a lighting system that starts with a green light. At 4 minutes it turns yellow, then red at 5.

After each witness has presented his or her testimony, Subcommittee Members will be permitted to ask questions subject to the 5-minute limit.

Mr. Feinstein, please begin.

TESTIMONY OF RICHARD FEINSTEIN, DIRECTOR, BUREAU OF COMPETITION, FEDERAL TRADE COMMISSION, WASHINGTON, DC

Mr. FEINSTEIN. Chairman Johnson and Members of the Subcommittee, I am Richard Feinstein, director of the Bureau of Competition at the FTC. I want to thank the Committee for this opportunity to talk about some of the commission's efforts to apply sound competition policy to dynamic markets. My comments today are my own and may not reflect the view of the commission or the views of any individual commissioner.

Despite the profound changes in the American economy since the passing of the Sherman Act in 1890, our antitrust laws remain basically the same, and they have proven that they could still do the job. Some have argued that there should be different rules for markets characterized by rapid technological development.

But Congress drafted the antitrust laws in general terms to accommodate changing markets and new products, and the laws are flexible enough to meet the challenges of the high-tech era. In fact, by keeping markets open to new products and to successive waves of innovation, the antitrust laws promote dynamic markets and contribute to the continued success of American businesses at home and around the world.

Of course, the antitrust laws are not enforced in a vacuum. Congress created the FTC specifically to guide competition policy through changing competitive environments. To that end we hold public workshops, engage in economic research, and discuss competition issues with other policymakers like the Members of this Committee to develop and refine our understanding of established and developing markets.

Today I am going to talk briefly about two of the areas in which the commission is applying the tried and true principles of competi-

tion to markets characterized by technological change—monopolies and mergers.

Turning first to monopolies, broadly speaking, there is a fundamental tension when dealing with unilateral conduct by a firm that is trying to obtain or maintain monopoly power. On the one hand, it is not illegal to have a monopoly, and many monopolists obtain their status by inventing new and highly desired products. On the other hand, competition policy generally relies on rivalry to discipline the behavior of firms in the market.

The challenge is to use the commission's antitrust authority to prevent unreasonable exclusionary and predatory conduct by firms with monopoly power by making sure not to limit their incentives to innovate and to compete aggressively.

For example, last December the commission charged that Intel Corporation had engaged in various unfair methods of competition and unfair practices to block or slow the adoption of non-Intel products. By this conduct Intel illegally maintained its monopoly on computer chips or CPUs and sought to obtain a monopoly on graphic processing units.

Intel recently agreed to settle the commission's charges and to propose settlement aims to prevent the recurrence of Intel's illegal conduct without stifling its ability to continue to innovate and compete fairly. It does not seek to strip Intel of its chip monopoly, but it does open the door to fair and vigorous competition in these markets. That way competition on the merits, not Intel's illegal practices, will determine the future path of competition in these markets.

Turning to merger enforcement, as you know, Section VII of the Clayton Act outlaws mergers whose effect may be substantially to lessen competition or tend to create a monopoly. So merger analysis is by nature forward-looking. It focuses on what level of competition is likely to occur in the future in a post-merger world.

One particular challenge when examining dynamic markets is that market facts can be hard to pin down. In markets with emerging technologies or rapidly changing product offerings or suppliers, there may not be a track record of past competition, or that track record may not be relevant to predicting future competition. Often there is greater uncertainty about the future path of competition, and market shares of leading companies may be less durable in these markets.

A recent example of a merger investigation involving companies in a rapidly changing market is Google's acquisition of AdMob. Initially, we had concerns that the loss of head-to-head competition between the two leading mobile advertising networks would harm competition. However, toward the end of our 6-month investigation, those initial concerns were overshadowed by Apple's introduction of its own mobile advertising network, iAd, as part of its iPhone applications package.

Because of these changing circumstances, the commission found reason to believe that Apple quickly would become a strong mobile advertising network. The timing and impact of Apple's entry into the market led the commission to conclude that AdMob's success to date on the iPhone platform was unlikely to be an accurate predictor of AdMob's competitive significance going forward, whether

AdMob was owned by Google or not. After viewing all the evidence, the commission unanimously voted to close its investigation without taking action against the merger.

In conclusion, our competition laws have served America well. They have proven adaptable to changes in markets and business models across a span of more than 100 years. The commission's work enforcing antitrust laws will continue to be an important part of our national success in preventing competitive harm in new and dynamic markets while fostering and rewarding innovation and entrepreneurship.

Thank you very much. And I look forward to answering your questions.

[The prepared statement of Mr. Feinstein follows:]

PREPARED STATEMENT OF RICHARD FEINSTEIN

Antitrust in the Digital Age:
How Enduring Competition Principles
Enforced by the Federal Trade Commission
Apply to Today's Dynamic Marketplace

Prepared Statement of
The Federal Trade Commission

Before the
United State House of Representatives
Committee on the Judiciary
Subcommittee on Courts and Competition Policy

Washington, D.C.
September 16, 2010

Chairman Johnson, Ranking Member Coble, and members of the Subcommittee, I am Richard Feinstein, Director of the Bureau of Competition at the Federal Trade Commission ("FTC" or "Commission").[1] Thank you for inviting the Commission[2] to present its views on competition in the digital age, and for this opportunity to describe for you some of the agency's efforts to apply sound competition policy to dynamic markets.

The first federal antitrust statute, the Sherman Act, was enacted in 1890, a time of horses and buggies and kerosene lamps. Congress passed the Clayton and Federal Trade Commission Acts less than 25 years later, in 1914. Despite the profound changes in the American economy since then, at core our antitrust laws remain basically the same, and they have proven that they can still do the job. The antitrust laws have succeeded for so many years because they are rooted in fundamental market principles: that competition among independent firms yields lower prices, better service, more choices, and the promise of better products tomorrow; and that business conduct that unreasonably impedes competition limits economic growth.

Some have argued that there should be different rules for markets characterized by rapid technological development, but Congress drafted the antitrust laws in general terms to accommodate changing markets and new products, and the laws are flexible enough to meet the challenges of the high-tech era. Moreover, the antitrust laws are not enforced and interpreted in a vacuum; Congress created the Commission specifically to

[1] This written statement represents the views of the Federal Trade Commission. My oral presentation and responses to questions will be my own and do not necessarily reflect the views of the Commission or of any Commissioner.

[2] Commissioner Kovacic is recused from Intel Corp, Docket 9341. Because this testimony is so intertwined with that case and the Commission has not issued its final order, he abstains from voting on this testimony.

guide competition policy through changing competitive environments, and since 1914 the Commission has used its competition policy tools to inform its enforcement agenda and to help it apply traditional antitrust concepts to new markets and changing business models. We hold public workshops, engage in economic research, and discuss competition issues with other policy makers, like the members of this Committee, to develop and refine our understanding of established and developing markets and to ensure that we are doing the right thing for American consumers and businesses—encouraging robust competition, spurring economic growth, and sweeping away impediments to competitive change.

The remainder of this testimony will focus on two of the areas in which the Commission is applying the tried and true principles of competition to markets characterized by technological change: unilateral conduct by firms with market power, and mergers.

Monopolies

There is a fundamental tension in antitrust law when dealing with unilateral conduct by a firm that is trying to obtain or maintain monopoly power. On the one hand, it is not illegal to have a monopoly, and many monopolists obtained their status by inventing new and highly desired products. On the other hand, competition policy generally relies on rivalry to discipline the behavior of firms in the market. The challenge is clear: the Commission must act to prevent unreasonable exclusionary and predatory conduct by firms with monopoly power while making sure not to limit their incentives to innovate and compete aggressively. As Judge Learned Hand put it nearly

three quarters of a century ago, "[t]he successful competitor, having been urged to compete, must not be turned upon when he wins."[3]

This task is made more complex in a rapidly evolving marketplace, but the antitrust laws are flexible enough to meet the challenge, and the Commission is well-equipped to scrutinize conduct by dominant firms in dynamic markets because of its enforcement and policy expertise and because of its jurisdiction under the FTC Act. The FTC Act, which prohibits "unfair and deceptive acts and practices and ... unfair methods of competition" "was designed to supplement and bolster the Sherman Act and the Clayton Act . . . to stop in their incipiency acts and practices which, when full blown, would violate those Acts . . . as well as to condemn as 'unfair methods of competition' existing violations" of those acts and practices.[4] In other words, although most of our enforcement actions involve conduct that violates either the Sherman or Clayton Acts, the FTC Act gives the Commission some additional leeway to block anticompetitive conduct that may not reach the level of a traditional antitrust violation. This authority is particularly useful in rapidly changing markets, where new technology and new business models may complicate the antitrust analysis.

In addition, the remedies available under the FTC Act are particularly well suited to deal with antitrust violations in new or dynamic markets. First, because the Commission lacks the authority to fine or penalize violators, Commission remedies limit

[3] United States v. Aluminum Co. of Am. (Alcoa), 148 F.2d 416, 430 (2d Cir. 1945).

[4] F.T.C. v. Brown Shoe Co., 384 U.S. 316, 322 (1966) (quoting F.T.C. v. Motion Picture Adv. Serv. Co., 344 U.S. 392, 394-95 (1953)). See also F.T.C. v. Texaco, 393 U.S. 223, 225-26 (1968). Congressman Stevens of New Hampshire, who later became an FTC Commissioner, identified the "most important" reason for supporting the FTC Act as that "it will give to this commission the power of preventing in their conception and in their beginning some of these unfair processes in competition which have been the chief source of monopoly." 51 Cong. Rec. 13,118 (1914).

the potential for unduly harsh or punitive responses to what may be somewhat novel situations in new markets. Second, a finding of a Section 5 violation by the Commission should greatly limit treble damage liability in private litigation against the same defendant. Thus, the Commission can apply antitrust principles in new situations and dynamic markets with reduced risk of unduly chilling a leading firm's incentives to compete aggressively.

The Commission's recent administrative suit against Intel Corporation demonstrates how antitrust principles can be applied to remedy abusive conduct of an innovative company that simply went too far. The Commission's complaint challenged Intel's unfair methods of competition and unfair acts or practices dating back to 1999.[5] Our proposed consent order with Intel, which has now received public comment and is being considered for possible final approval by the Commission, settles these charges and seeks to restore lost competition, remedy harm to consumers, and ensure freedom of choice for consumers in this critical segment of the nation's economy.[6]

According to the Commission's complaint, Intel's conduct was designed to maintain its monopoly in the markets for computer chips (also known as Central Processing Units, or "CPUs") and to create a monopoly for Intel in the markets for graphics processing units. The complaint alleges that Intel engaged in unfair methods of competition and unfair practices to block or slow the adoption of competitive products and maintain its monopoly to the detriment of consumers. Some of those practices punished Intel's own customers – computer manufacturers – for using non-Intel products.

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[5] *FTC Challenges Intel's Dominance of Worldwide Microprocessor Markets*, news released dated December 16, 2009, available at http://www.ftc.gov/opa/2009/12/intel.shtm.

[6] Intel Corporation, Docket No. 9341, available at http://www.ftc.gov/os/adjpro/d9341/index.shtm.

Some of those practices deceived purchasers by leading them to believe that the chips sold by Intel's competitors were less capable than Intel chips, when in fact those chips were sometimes superior to Intel chips. According to the Commission, Intel's course of conduct over the last decade stalled the widespread adoption of non-Intel products, and limited market adoption of non-Intel CPUs to the detriment of consumers, allowing it to unlawfully maintain its monopoly in the relevant CPU markets, and keep prices higher to consumers than they would otherwise be.

The Commission's proposed settlement aims to prevent the recurrence of Intel's unreasonable exclusionary and deceptive conduct without stifling its ability to continue to innovate and compete fairly. Notably, the proposed settlement does not seek to strip Intel of its chip monopoly, which was in large measure gained through innovation and the development of associated intellectual property. Rather, it provides structural relief designed to restore the competition lost as a result of Intel's past conduct, coupled with provisions that prevent Intel from engaging in similar conduct in the future. The order aims to open the door to fair and vigorous competition in chip markets, leading to lower prices, more innovation, and more choice for consumers.

Mergers

Section 7 of the Clayton Act outlaws mergers whose effect *may be* substantially to lessen competition or tend to create a monopoly. So merger analysis is, by nature, normally forward-looking because it focuses on what level of competition is likely to occur in the future, in a post-merger world. As noted in the recently-released Horizontal Merger Guidelines issued jointly by the Commission and the Department of Justice, "[m]ost merger analysis is necessarily predictive, requiring an assessment of what will

likely happen if a merger proceeds as compared to what will likely happen if it does not."[7] Using the fact-specific approach laid out in the Guidelines, the Commission uses its extensive experience and applies a range of analytical tools to the evidence to evaluate the likely competitive effects of a merger. As part of this process, we ask: will this merger reduce competition in the future, or will new or existing competitors emerge to challenge the merged firm so that customers will receive the benefits of competition going forward?

One particular challenge when examining markets characterized by rapid technological change is that market facts can be hard to pin down. In most merger investigations, we ask questions about competition that has occurred in the past, in order to understand how market participants have interacted, historically, and we use that information to help us assess how market participants are likely to interact when the acquired firm ceases to be an independent competitor. In markets with emerging technologies or rapidly changing product offerings or suppliers, there may not be a track record of past competition, or that track record may not be relevant to predicting future competition. Often there is greater uncertainty about the future path of competition and market shares of leading companies may be less durable in these markets.[8] Just as in other markets, we must search out those market facts that shape the competitive interaction of firms currently in the market, and identify and assess the likely significance

[7] *Horizontal Merger Guidelines* issued by the Federal Trade Commission and the Department of Justice (August 19, 2010) 1.0 available at http://ftc.gov/os/2010/08/100819hmg.pdf.

[8] On the other hand, it is also true that monopolies obtained in these markets are sometimes especially durable. In such instances, efforts to police the market against monopolistic conduct are particularly important.

of other firms and products that will likely shape future competition as well, taking note of facts that develop as we are investigating.

A good example is the Commission's recent investigation of Google's acquisition of AdMob. Initially the Commission had concerns that the loss of head-to-head competition between the two leading mobile advertising networks would harm competition. However, this was a dynamic market, and our initial concerns ultimately were overshadowed by two subsequent developments: (1) Apple's December 2009 acquisition of the third largest mobile ad network, Quattro Wireless, and (2) Apple's introduction of its own mobile advertising network, iAd, as part of its iPhone applications package. Because of these changing circumstances, the Commission found reason to believe that Apple quickly would become a strong mobile advertising network. The timing and impact of Apple's entry in the market led the Commission to conclude that AdMob's success to date on the iPhone platform was unlikely to be an accurate predictor of AdMob's competitive significance going forward, whether AdMob was owned by Google or not. Accordingly, in May the Commission unanimously voted to close its investigation without taking action against the merger. [9]

Merger analysis will continue to take into account all market facts, with a focus on how competition is likely to take place in the future. While that task may be slightly more challenging in markets that are experiencing rapid change, the Commission relies on time-tested tools of investigation and analysis to protect consumers from

[9] *FTC Closes its Investigation of Google AdMob Deal*, news release dated May 21, 2010 available at http://www.ftc.gov/opa/2010/05/ggladmob.shtm.

anticompetitive mergers, and promote competitive markets where innovation and change can occur.

Conclusion

Our competition laws have served America well. They have proven adaptable to changes in markets and business models across a span of more than 100 years. The Commission's work enforcing the antitrust laws will continue to be an important part of our national success in preventing competitive harm in new and dynamic markets while fostering and rewarding innovation and entrepreneurship.

Mr. JOHNSON. Thank you, Mr. Feinstein.
Mr. Black, please proceed.

TESTIMONY OF EDWARD J. BLACK, PRESIDENT AND CEO, COMPUTER AND COMMUNICATIONS INDUSTRY ASSOCIATION, WASHINGTON, DC

Mr. BLACK. Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify. Thank you for the opportunity to testify today on competition in the digital age. I ask that my written statement be included in the record, and I will summarize those remarks.

CCIA has participated in many major antitrust cases in the high-tech era. I hope to offer some insights today from that experience. Let me begin by saying that our industry requires antitrust oversight like any other. Since the Sherman Act, antitrust skeptics have claimed that the law should not be applied to new industries because of new economic forces, that competition could be ruinous or was bad for consumers.

In fact, antitrust enforcement helped pave the way for Silicon Valley as we now know it. History shows our industry is particularly susceptible to competitive abuses due to certain aspect of high-tech markets, including network effects, intellectual property thickets, lock-in and opportunism enabled by architecture. Let me focus on three of these three big red flags.

First, lock-in. Consumers are locked in when the costs of switching from one vendor to another are prohibitively high. Currently, CCIA has filed a case against IBM for abusing locked-in customers in an attempt to maintain its mainframe monopoly. Legacy users of mainframe, who account for 80 percent of the world corporate and government data, face huge costs associated with moving their data and applications to other systems. Therefore, IBM has been able to keep prices artificially high.

When a few companies pioneered methods to decrease the mainframe switching costs, IBM went on the attack to protect its monopoly using litigation, intimidation, and finally buying up pioneers and mothballing their technology.

The flip side of lock-in is that low barriers to entry diminish competitive risks. In certain markets, especially Internet-centered markets, entry is easy and competition is just a click away. Thus, it is easy to lose market share quickly.

A second red flag is chokepoints. Chokepoints are specific markets through which consumers must pass to access an ecosystem of related products and services. Two current examples are semiconductors and Internet access. The FTC's Intel investigation illustrates the presence of chokepoints in the semiconductor market. As the main brain of a computer, the semiconductor is a chokepoint of the computing industry.

As the recent FTC investigation showed, Intel used this chokepoint to secretly harm its competitors' products when it began to view graphic processing units as a threat to its own position in the chip market. I commend the FTC for its recent settlement regarding Intel's anticompetitive conduct. It demonstrated its expertise in handling this case. Going forward, however, the FTC must aggressively enforce this decree.

In addition to microprocessors, Internet access is another chokepoint. The content applications in Web sites that run on top of the transport layer of the telecommunications network represent an extremely competitive market or groupings of markets, perhaps the most competitive markets in history.

However, the infrastructure that users need to access the Internet is not nearly as competitive. Most consumers face a duopoly of Internet access providers—their phone company and their cable company. The current network neutrality debate is really a byproduct of this largely noncompetitive market.

A final red flag is architecture-driven opportunism, which we have seen in the Apple apps controversy. Without getting into too much detail, the problem was the potential bait and switch, as it appeared that Apple may have baited customers with an open platform, but then switched to a closed platform after consumers were locked in.

Finally, I urge skepticism of special interest exemptions to the general rule in favor of free and open competition. The seminal 2007 Antitrust Modernization Commission report said that there must be continued, "careful analysis and strong evidence for such exceptions" when supporting them, and even then it said such exceptions should be granted rarely.

And yet exceptions abound. The Supreme Court has created many, including for sports leagues and regulated industries, and there are calls for new exemptions such as for Internet news coverage. And, of course, we have long-standing exemptions for what the Supreme Court has repeatedly labeled monopolies of those government-granted entitlements to monopolize ideas that we call "intellectual property." All of these antitrust exemptions must be consistently tested in a crucible of cost-benefit analysis.

In conclusion, it is critical for antitrust authorities to be watchdogs, because when you are being bullied, it can be risky to speak out. But remember also that big doesn't equal bad. We need innovative disruptive technologies to make it out of the garage and into the marketplace. Thank you.

[The prepared statement of Mr. Black follows:]

PREPARED STATEMENT OF EDWARD J. BLACK

Statement of

Edward J. Black
President & CEO of
The Computer & Communications Industry Association (CCIA)

Before the

Subcommittee on Courts and Competition Policy
Committee on the Judiciary
U.S. House of Representatives

"Competition in the Evolving Digital Marketplace"

September 16, 2010

Mr. Chairman, I appreciate the opportunity to testify before the Subcommittee on the role of antitrust law and competition policy in the digital age. I am President and CEO of the Computer & Communications Industry Association (CCIA), an organization that has promoted openness, interoperability and competition in technology industries for over 35 years. My testimony today reflects the views of my organization and should not be attributed to any individual member company.

Over the years, CCIA has been instrumental in the major antitrust cases of the high-tech era, including the fight against IBM dominance of the early computer marketplace, the breakup of AT&T, the U.S. Department of Justice (DOJ) and European Commission disputes with Microsoft and, most recently, the multijurisdictional conflicts regarding various anticompetitive strategies devised by Intel and IBM.

On Prudent Antitrust Enforcement

Let me begin by acknowledging that care must be taken to guard against overly aggressive antitrust enforcement, but I caution against stretching this argument too far. Recent claims that high-tech markets are harmed by antitrust enforcement need to be put in context. Since the passage of the Sherman Act, there have been claims that antitrust law should not be applied to "new" industries because of "new" economic forces. In the first Sherman Act case decided by the Supreme Court in 1897, defendants claimed that the high fixed costs of the railroad industry would lead to ruinous competition that would destroy the industry. Defendants over the years have claimed that applying antitrust to corporate stock acquisitions would greatly harm the stock market and that applying antitrust to the steel industry would imperil our nation's competitiveness. In each case, antitrust law and its enforcers have adapted. If anything, antitrust enforcement helped pave the way for Silicon Valley as we now know it. Antitrust scrutiny of IBM prompted

the unbundling of hardware and software, allowing an independent software industry to emerge. Even before that, antitrust enforcers required AT&T to license one of its key inventions, the transistor, which gave rise to the modern hardware industry.

I would also like to touch on the role of competitors in investigating antitrust violations. The role they play can be invaluable. They have indispensable knowledge and expertise about their own markets and a firsthand view of the harm inflicted upon consumers. In almost every antitrust case, competitors have played a large role in bringing anticompetitive conduct to light. However, the case and facts must be examined independently, with a special eye given towards competitors' motives. Competitors are not just harmed by anticompetitive behavior, but they also harmed by legitimate, Darwinian competition. Although not a completely new phenomenon, the frequency with which antitrust is being wielded cynically by companies to hurt their fiercest competitors is increasing, and they do so because their competitors' innovative business models threaten their own entrenched business models, bloated margins and legacy revenue streams. These targeted legal and public relations campaigns are actually damaging to competition. Regulators must therefore recognize that the most knowledgeable companies may also have ulterior motives. In my experience, our regulators are quite capable, and it is unfair to suggest they cannot think critically and differentiate between trumped-up antitrust claims designed to protect legacy business models and legitimate claims about threats to the marketplace.

Characteristics of Anticompetitive Threats in the Digital Economy

Certain aspects of high-tech markets—such as network effects, tipping points, intellectual property thickets, lock-in, complexity, etc.—may complicate antitrust enforcement. Some innate features of "new economy" industries may appear to have natural monopoly characteristics. However, this cannot rationalize more lenient antitrust policy. Quite the opposite, antitrust laws

must remain in place to prevent firms from abusing the significant market power they are likely to obtain. Of course, it is Antitrust 101 that market power alone is not illegal. It is the *anticompetitive abuse* of market power that the law prohibits, for it impedes innovation and harms consumers. Through the numerous cases we have been involved in, CCIA has seen certain characteristics arise as red flags in determining whether behavior is benign or anticompetitive. These red flags pertain to consumer "lock-in," the presence of chokepoints, and the entrenchment of incumbents.

Lock-in

Consumer lock-in occurs when significant switching costs exist that effectively prevent customers from migrating to other vendors. In high-tech markets, proprietary document formats, closed source code, and non-interoperability can all create or exacerbate lock-in. When artificial barriers are erected to prevent users from changing products or services, customers are harmed and the perpetrators are insulated from competitive pressures, which lowers incentives to innovate. Currently, CCIA has filed a case against IBM for abusing locked-in customers in an attempt to maintain its mainframe monopoly. Because legacy users of mainframes (who account for 80% of the world's corporate and government data) face high costs associated with moving their data and applications to other systems, IBM has been able to keep prices much higher for these users than even IBM's other customers in similar markets that utilize non-mainframe machines. When a few companies pioneered methods to decrease mainframe switching costs, thus allowing dissatisfied IBM customers to more easily migrate off IBM mainframes if they so chose, IBM began an aggressive campaign against these pioneers, including litigation, intimidation, and finally purchasing one of the companies and mothballing its new technology.

On the flip side of the lock-in equation, high market share does not always mean the presence of lock-in. In certain markets, especially Internet-centric markets, competition is just a

click away. Regulators must be cognizant of barriers to entry, which include circumstances and phenomena that prevent new players from entering a particular market. If the barriers to entry are minimal, then high market share is not necessarily correlated with market power. In the Internet Search space, Google went from scrappy startup to market leader. Given low barriers to entry, it could just as easily lose that position, as Excite, Lycos and Alta Vista did before.

Choke Points

Choke points in high-tech markets are also frequent problem areas. These are specific markets through which consumers *must pass* to access an ecosystem of related products and services. When choke points are abused, the controlling company can squeeze both consumers and product or service suppliers in the system to accept higher costs or unfavorable terms of use. Two current examples of choke points are the markets for semiconductors and Internet Access.

The recent Federal Trade Commission (FTC) investigation of Intel illustrates the presence of choke points in the markets for semiconductors. The semiconductor market for PCs and servers never saw competition blossom because of high intellectual property hurdles, the importance of standardization, high upfront capital costs and anticompetitive conduct by the dominant firm, Intel. While Intel earned some of the highest profit margins of any company in the world, the original equipment manufacturers (OEMs) that relied on Intel to supply them with the majority of their computer chips hardly remained afloat. In fact, it turned out that Dell, one of the most successful OEMs, remained profitable only because they were receiving kickbacks from Intel not to use other manufacturers' chips. Furthermore, since the semiconductor serves as the main brain of the computer or server it powers, other components, such as graphics processing units (GPUs), must essentially plug into the semiconductor so they can work in conjunction with it. As the recent FTC investigation shows, Intel used this choke point to secretly harm its competitors' products when it began to view GPUs as a threat to its own position in the CPU market. Intel's

activities illustrate that dominant companies who control choke points can threaten ancillary markets as well.

The Internet Access market is an example of another chokepoint. The content, applications and websites that run "on top" of the transport layer of the telecommunications network represent an extremely competitive market (or grouping of markets); perhaps the most competitive market in history. However, the infrastructure that users need to access the Internet is not nearly as competitive. Most consumers face a duopoly of Internet Access Providers (IAPs): their phone company and their cable company. The current network neutrality debate is a by-product of this phenomenon. As *The Economist* recently observed, the network neutrality debate is unique to the United States because we are nearly alone among the industrialized nations in tolerating a non-competitive market for Internet Access.

> [America's] vitriolic net-neutrality debate is a reflection of the lack of competition in broadband access. The best solution would be to require telecoms operators to open their high-speed networks to rivals on a wholesale basis, as is the case almost everywhere in the industrialised world. America's big network operators have long argued that being forced to share their networks would undermine their incentives to invest in new infrastructure, and thus hamper the roll-out of broadband. But that has not happened in other countries that have mandated such "open access", and enjoy faster and cheaper broadband than America. ... Rivalry between access providers offers the best protection against the erection of new barriers to the flow of information online.[1]

Installed-base Opportunism

Another topic I would like to address is the recent controversy surrounding Apple and the applications ("apps") market for smart phones. Several months ago, news accounts leaked of an FTC investigation into Apple's policy change that prevented third party developers from using Adobe Flash-based tools to write iPhone apps. The functional importance of such a restriction

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[1] "The Web's New Walls: How the Threats to the Internet's Openness Can be Averted," *The Economist*, September 02, 2010, available online at http://www.economist.com/node/16943579 (last accessed on September 14, 2010).

from a competition policy standpoint was that it harmed the ability of developers to write applications for multiple operating systems. Because Apple had the largest apps store and highest percentage of the market, developers would almost always write their applications for Apple's platform. However, the use of Flash-based tools would allow developers to easily write apps for both iPhones and other phone operating systems, such as Android. Adobe claimed Apple's actions were clearly anticompetitive and anti-consumer, while Apple claimed business and technological justifications for its actions. By no means was this a slam-dunk case for the FTC, but it does appear that the Commission's investigation helped spur Apple to reverse its decision.

Although I will refrain from making a judgment on the Apple/Adobe matter, there is one aspect of this case that has broader importance to future antitrust cases. In principle I support and promote open and interoperable systems. However, I also recognize that not all platforms are going to be open. Although this can sometimes be an antitrust concern, it truly depends on market concentration and specific circumstances. One aspect of the Apple situation that gives me pause is that Apple changed policies after it had surged to a commanding lead in the apps market, locking down a platform that had previously been open. Carl Shapiro, the current Chief Economist at the DOJ, discussed this phenomenon when he was still a professor at Berkeley. Although he recognized the challenges with upfront "duties to deal" he did endorse being able to limit a dominant firm's ability "to change policies by shutting down interfaces that had been open."[2] This behavior, also known as *installed-base opportunism*, is something that regulators must guard against. Competition policy should discourage baiting consumers with an open platform, and then closing down and restricting that platform to competition after consumers have already parted with their money. If Apple had banned Adobe Flash tools from the beginning, there likely would

[2] Michael L. Katz & Carl Shapiro, *Antitrust in Software Markets*, *in* Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Marketplace *at* 39 (Jeffrey A. Eisenach & Thomas M. Lenard ed. 1998).

have been less impetus for an investigation by the FTC. When consumers and developers commit to a system, they should know what they are getting into beforehand. When a company uses newly-obtained, increased market share opportunistically and closes down a platform to avoid competition, customers who have already locked themselves into this system (in the case of an iPhone, by signing an expensive two year service contract) – are deprived of the opportunity to make an informed decision up front.

FTC's Consent Decree with Intel

Given the timing of this hearing, I would be remiss if I did not take this opportunity to commend the FTC for its recent settlement with Intel over a number of anticompetitive actions. Although we commented more extensively on the specifics of the Intel Consent Order before the FTC,[3] I wanted to outline some of my thoughts before the Subcommittee. The FTC showed its competence and expertise by expanding its charges beyond the scope of the numerous other jurisdictions that had already brought charges against Intel. The FTC discovered behavior by Intel that included (a) altering its compilers to make competitors' products appear slower, (b) releasing false product roadmaps to intentionally deceive companies that relied on Intel's specifications, and (c) altering product designs to harm interconnected components that Intel found threatening. The FTC also made the correct decision when it came to remedying the effect of Intel's behavior by seeking to bolster the current crop of competitors and reinforce their right to compete in the x86 computer market, as new entry is unlikely in this particular market.[4] However, CCIA is concerned with some of the ambiguity embedded in certain sections of the Consent Order and has urged the FTC to aggressively enforce the decree and interpret ambiguity in favor of consumers.

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[3] Comments of the Computer & Communications Industry Association (CCIA), *In re Intel Consent Order*, Docket No. 9341 (filed Sept. 7, 2010).

[4] *See* page 4 above.

Re-examining Exceptions to the Rule in Favor of Free and Open Competition

Finally, we must remain both skeptical and circumspect about existing or proposed exceptions to the general rule in favor of free and open competition. I urge you to view with a critical eye all of the following:

- Any industry-specific exemptions, whether for sports leagues,[5] or regulated industries, such as those manufactured by *Trinko* and *Credit Suisse*;[6]
- proposed exemptions based upon some abstract "new" market phenomenon, whether that involves railroads or Internet news coverage; and
- government-granted rights to exclude in the form of current intellectual property entitlements, or proposed new monopolies on facts, news, fashion design, and so on.

Each of these exceptions – existing or proposed – must be consistently tested in the crucible of cost-benefit analysis. Some exceptions will pass that test, such as many intellectual property rights – but it betrays the consuming public if we fail to periodically question and reassess whether or not to absolve certain industries for conspiring against a free and open market.

Conclusion

For the past 25 years I have had a front row seat (and sometimes a courtroom seat) for the antitrust battles of the tech industry. The successful outcome of some battles can be linked to spurts of innovation and economic activity that has propelled the US economy forward. As our country looks for no cost ways the government can help boost the economy, ensuring our antitrust policies are doing their job is a sound, laudable step. It is critical for authorities to be watchdogs because, when companies face bullying behavior by a dominant company that has real power to

[5] *Flood v. Kuhn*, 407 U.S. 258 (1972).
[6] *Verizon v. Law Offices of Curtis V. Trinko*, 540 U.S. 398 (2004); *Credit Suisse Securities (USA) LLC v. Billing*, 551 U.S. 264 (2007).

lock them out of the market, the risks of retaliation often mean silence – without a subpoena. But it is also important to remember that big doesn't equate to bad and one must scrutinize a company's behavior and the economic forces at play. We want a market where the best, most innovative ideas and disruptive technologies can make it out of the garage, dorm room or board room and into the marketplace without being squashed by big players trying to maintain their market share at the expense of the consumer and nation's bottom line.

About CCIA

The Computer & Communications Industry Association (CCIA) is dedicated to open markets, open systems, and open networks. CCIA members participate in the information and communications technology industries, ranging from small entrepreneurial firms to the largest in the business. CCIA members employ nearly one million people and generate annual revenues exceeding $200 billion.

From the beginning, CCIA has believed that understanding and protecting innovation was central to our industry's future, and that our industry was unique, and of special importance to society. The essence of our industry is its ability to intelligently capture and analyze information, and communicate it to different people and parts of society more quickly and comprehensively than ever imagined. In simple terms, electronic computing and communications greatly enhance our ability to think, speak, and interact. The innovation in these industries is of immense social, economic, and political importance, and it is changing almost every aspect of our world.

Innovation – how to foster it, protect it, and benefit from it – requires us to understand the dynamic process that has worked to get us to where we are. It is not an accident that innovation has flourished in a society that values an open, competitive marketplace, where independence and free speech are enshrined in law. Therefore, CCIA's commitment to vigorous competition, freedom of expression, and openness is a natural product of understanding what has helped our industry thrive, and what it needs to continue to do so.

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Mr. JOHNSON. Thank you, Mr. Black. And it is important to know that we here at the Subcommittee want to receive such information as you indicated may be available to those who feel threatened or put upon or challenged in any way. And we would love to have that kind of information trickling in or pouring in, whatever the case might be. Thank you.

Mr. Reed, please begin.

TESTIMONY OF MORGAN REED, EXECUTIVE DIRECTOR, ASSOCIATION FOR COMPETITIVE TECHNOLOGY, WASHINGTON, DC

Mr. REED. Chairman Johnson, Ranking Member Coble and distinguished Members of the Committee, my name is Morgan Reed, and I would like to thank you for holding this important hearing on the evolving digital marketplace.

I am the executive director of the Association for Competitive Technology, or ACT. ACT is an international advocacy and education organization for people who write software programs. We represent over 3,000 small and midsize IT firms throughout the world.

For my members the smartphone market represents the single largest opportunity for growth in the next decade. As growth in the PC market slows, the mobile market is accelerating, even in today's slumping economy. And we are nowhere near the top. True smartphones have only 25 percent of the market in the U.S. and, more importantly, less than 7 percent in Asia.

Given the importance of this market to my members, we appreciate that the Committee shares our concern about the continued competitiveness. Currently, however, we see the smartphone market as both dynamic and competitive. The latest market share numbers show that devices running Nokia's Symbian operation system are currently in the lead at 41 percent. Research in Motion's Blackberry, which all of you have, is at 18. Google's Android is at 17, and Apple's iOS, which runs the iPAD and the iPhone, is at 15.

So while Apple may be foremost in people's mind, it isn't the biggest player in the smartphone marketplace. In fact, industry analysts at Gartner suggest that Apple's market share is destined to continue falling as Google's Android grows to be the largest phone operating system by 2014.

Now, despite Apple's modest share in the smartphone market, some have expressed grand conspiracy theories on why Apple's iOS does not support Mobile Flash Player from Adobe. The facts, however, suggest something much more simple. Apple wants to create the fastest, most efficient and most stable mobile platform on the planet. And the current version of Mobile Flash is not fast. It is hard on battery life, and it is not particularly stable.

Every smartphone vendor, including Apple, Google and Microsoft, Nokia and others, have rejected Flash Player at one time or another for many of the same reasons.

Additionally, our members don't believe the rules governing Apple's App Store are harming competition in the smartphone market today. With more than 80 percent of our developers creating applications on multiple platforms, developers are following opportunity, not fashion.

And while some are concerned about the over broad nature of Apple's previous restrictions on third-party tools, Apple's recent update has removed those concerns for our members. And we look forward to developing more incredible applications on the platform.

However, our members do have some concerns about the future of competition in the smartphone ecosystem. While the current competitive landscape offers our members bountiful opportunities

to feed their families and create jobs, Google's march toward domination of the market presents two challenges for future growth.

First, the Android platform does not offer the same kind of opportunities for software developers to get paid directly for their applications. Google makes 99 percent of its revenues from online advertising platforms, and therefore strongly pushes developers toward an advertising-funded model.

And while Google can get fat in a world where all Android applications are advertising-funded, most small businesses will starve unless they can attract a massive user base like we see with what we all heard about Farmville.

Second, if your application or service develops the scale necessary to survive on advertising alone, Google becomes very interested in you. For example, just a few short years ago MapQuest was a go-to Web site for online maps and directions. I am sure many of you used it. After MapQuest built an impressive market, Google bought a company called Where To and integrated its mapping software directly into its search results. MapQuest stopped showing up on the first page of a Google search and quickly became an also-ran.

This experience illustrates why many of our members are concerned by Google's proposed acquisition of ITA, the search engine that powers nearly every travel booking app and Web site. Many of our members are worried that Google's plans "deep integration of ITA's technology could skew the results to favor Google, and Google may even cut off the ability to use ITA's patented technology in mobile applications."

Now, as veterans of several technology company antitrust cases, ACT can sympathize with Google's position here. It wasn't that long ago they were just two guys in a garage, like many of our members. But as the rest of the panel can attest, the rules change when you achieve a dominant market share, even when it is gained lawfully.

The same transactions that were simply smart business as a startup can be found anticompetitive when you are that dominant company in a market. And the DOJ has already determined that Google has dominant market shares in both search and search advertising market. Therefore, we expect the DOJ to thoroughly review the acquisition of ITA and ensure that a competitive marketplace is preserved.

In summary, our members are incredibly excited about the opportunities offered by the smartphone market. The market today is competitive and dynamic, but there are some challenges on the horizon, and we hope the Committee will continue to look closely at them. Thank you.

[The prepared statement of Mr. Reed follows:]

PREPARED STATEMENT OF MORGAN REED

Statement of Morgan Reed

Executive Director

The Association for Competitive Technology

Testimony before the House Committee on the Judiciary, Subcommittee on Courts and Competition Policy

"Competition in the Evolving Digital Marketplace"

September 16, 2010

Chairman Johnson, Ranking Member Coble and distinguished members of the Committee: My name is Morgan Reed, and I would like to thank you for holding this important hearing on the evolving digital marketplace and the role it plays in driving innovation, fostering economic growth and, most importantly, creating new jobs.

I am the executive director of the Association for Competitive Technology (ACT). ACT is an international advocacy and education organization for people who write software programs—referred to as application developers—and providers of information technology (IT) services. We represent over 3,000 small and mid-size IT firms throughout the world and advocate for public policies that help our members leverage their intellectual assets to raise capital, create jobs and innovate.

Our community leaders are not political spokesmen—they are engineers; and I have drawn upon our membership's technical expertise and business concerns to inspire and inform these comments. In general, our membership finds the digital marketplace to be dynamic and open, with few impediments to moving between technologies. Instead, the challenges faced are more often connected to elements not directly tied to technology at all, but rather to regulatory uncertainty and to limited options for maximizing online advertising revenue.

The Smartphone Ecosystem is Creating Jobs and Opportunities in a Tough Economy

The state of the U.S. economy is profoundly unsettled. Questions about job security, healthcare, and foreclosure have become dinner table conversation throughout this country.

In the face of all of this turmoil, there has been a bright spot in economic growth: Sales of smartphones and tablets, such as the iPhone, the Android and the iPad, continue to outpace all predictions and are providing a huge growth market in a slumping economy. Smartphones that run third party applications are creating opportunities for handset manufacturers like HTC, Apple and Motorola, communications firms like Verizon and AT&T, and most especially for application developers like our members.

Just a little over two years ago, Apple launched its Apps Store to provide a place for developers to sell independently developed applications for the iPhone. Since then, over 250,000 new applications have gone on sale, with billions of applications sold or downloaded. The Android platform has recently exceeded the growth rate seen in the iPhone, totaling more than 100,000 applications available, with 10,000 new programs available each month.

And at the end of this year, we will also see the release of Windows Phone 7, with its own applications store which will likely be a big player. For me, each application showing up in a mobile store represents work done by a member—or a potential future member—of ACT.

Even more important are the opportunities that lay farther ahead. As Members of Congress you all have BlackBerries, and many of you have iPhones, Androids or Windows Mobile devices as well. Yet according to a recent Morgan Stanley report[1], most people haven't yet invested in such technology. True "smartphones" have around 25% penetration in the U.S.; in Asia, it may be as low as 6%. This represents a pathway for growth leading far into the future.

The Apps World is Dynamic

While a great deal of attention has been paid to the iPhone, the latest numbers show that the hype is larger than the footprint. Similar devices using the Symbian operating system are , far and away, the actual market leaders around the world. Statistics published for the second quarter of 2010 showed that Symbian devices comprised a 41.2% share of smart mobile devices sold, with RIM (BlackBerry) at 18.2%, Android at 17.2%, and Apple at 15.1%. This represents a drop in Apple marketshare from third overall, to fourth.[2]

Symbian's dominance often goes unnoticed because its reach is so complete. Nearly every major carrier in the world carries Symbian phones. Here in the U.S., Symbian

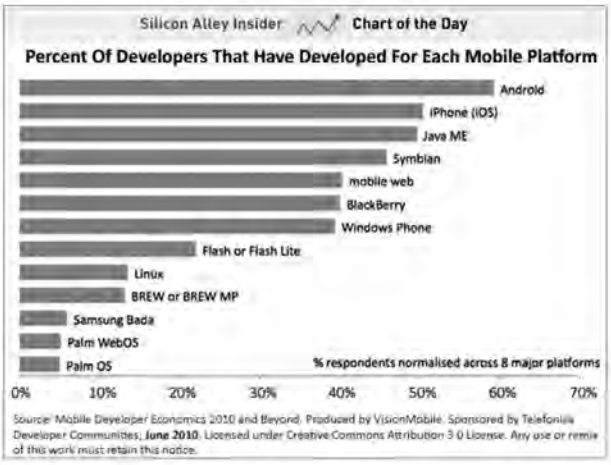
[1] http://www.morganstanley.com/institutional/techresearch/pdfs/2SETUP_12142009_RI.pdf
[2] http://arstechnica.com/gadgets/news/2010/08/smartphones-lead-mobile-sales-android-moves-into-no-3-spot.ars

phones can be found on all GSM networks: AT&T carries Symbian smartphones from SonyEricsson and Nokia[3], as does T-Mobile[4]. Symbian phones have several different app marketplace options, including Nokia's Ovi, Samsung Apps, and the Sony PlayNow Arena[5].

But even Symbian's dominance is likely fleeting. A study released by Gartner on September 10, 2010, says that Symbian's first place ranking will be challenged not by the iPhone, but by Google Android. By 2014, iOS (the operating system for the iPhone and iPad) will have fallen to a distant third.[6]

Developing for Multiple Platforms is the Norm

Both external sources[7] and ACT's internal polling show that a high percentage of our members are developing for multiple platforms. This is not an inhibition or barrier to development, as some have suggested. In fact, the range of options in platform languages provides *more* opportunity for developers.



[3] http://www.wireless.att.com/businesscenter/phones-devices/device-solutions/symbian-smartphones.jsp
[4] http://www.t-mobile.com/shop/phones/?shape=smp&WT.z_unav=mst_shop_phones_smart
[5] http://www.trustedreviews.com/mobile-phones/news/2009/10/28/Symbian-App-Store-Goes-Live/p1
[6] http://www.gartner.com/it/page.jsp?id=1434613
[7] Chart: Mobile Developer Economics 2010 and Beyond. Produced by VisionMobile

Mike Sax, our current board president, is a perfect example. Mike is a long-time developer of applications for the Windows platform. Two years ago, he wrote an app for the iPhone called Easywriter that was a huge success, with millions of downloads. Two months ago, Mike attended the Android developers conference to prepare for porting Easywriter to Android, and he's already thinking about his next Windows Phone 7 application. For developers like Mike, getting to work with, and develop for, the newest innovative technology platforms is almost as important as breathing.

Other ACT members are developing games for the Xbox 360 and porting them to the iPhone using Unity, and still more are looking at breaking into the business market on the BlackBerry Torch.

Finally, another group is bypassing the application marketplace concept and focusing on mobile web applications that will run well on mobile devices as well as a traditional desktop.

But possibly the most important thing we have noticed about the new apps world is how it has reinvigorated the developer community. With mobile and Xbox 360 apps, we have seen the return of the small, passionate developer who is focused on a product that will be created and shipped in a matter of months. These developers no longer have to worry about printing boxes and marketing materials, or how to take credit cards. The apps market model gives the developer a straight shot to the consumer, and developers find that empowering.

Why is there no Flash on the iPhone?

One question posed by this hearing is "why does Apple's iOS not support Adobe Flash?" Despite some of the grand conspiracy theories being floated, the facts suggest a simple answer: Apple wants to create the fastest, most efficient, and most stable mobile computing platform on the planet. On the mobile platform, where memory, processor time, and battery life are the most limited resources, Flash is a resource-hogging, battery-eating crash monster.

The most common source of system crashes and performance loss on any computer system are poorly written third party applications. In order to minimize this risk, Apple has put strict rules on third party application developers like our members. These rules are designed to ensure that the applications in the App Store are fully optimized for the iOS platform and therefore less likely to create performance problems. This approach allows iPhone and iPads to avoid the kind of speed, battery, and stability problems that are found on "Wild West"-style platforms that allow any and all programs to run on them. The end result is that the consumer doesn't have to worry about their computing device becoming slow or unstable. It just works.

Apple was not alone in raising concerns about Flash. The Android operating system didn't support Flash until its most recent release, and older Android phones remain incompatible with Flash. Microsoft has also announced that its initial release of Windows Phone 7 will not include a Flash player. None of these vendors rejected Flash for anti-competitive reasons. Instead they simply concluded that Flash is not ready for their devices.

Cross Platform Tools Hullabaloo – A Flash in the Pan

The license terms Apple drafted to restrict the use of misbehaving tools, however, were overly broad and seemed to prevent the use of any cross-platform tools to develop iOS applications. This was clearly not the intent of the rules, however, given that Apple never stopped approving apps built with alternative cross-platform tools like Unity. As Unity CEO David Helgason said:

> "All along Apple kept approving every single Unity game submitted to the AppStore – several per day – and even featuring some of them highly, so it was clear that Apple never stopped liking the results of what Unity developers have been doing. And neither did the gamers by the way: they've downloaded tens of millions of copies of Unity-based games, more often than not without knowing or caring if tools or middleware had been used or not."[8]

[8] http://blogs.unity3d.com/2010/09/10/unity-and-ios/

We believe that Apple had no interest in preventing cross-platform games in general. Apps built using the cross-platform Unity toolkit kept getting approved because Unity simply does not have the same problems as Flash. At least 20% of the top selling iOS games were built using Unity, and in July of 2010, Unity had more than 200,000 registered developers[9]. Therefore, last week Apple revised its license to clearly allow the use of cross-platform tools, including some types of Flash applications.

The Apple App Store has created an amazing opportunity for our members to innovate and grow their companies. With heavy competition from Microsoft's Windows Phone 7, BlackBerry, HP's Palm OS, and Google's Android, ACT believes that Apple has little or no power to harm competition in the industry even if they wanted to. In fact, the biggest challenge our members face is not from Apple's App Store, but to be forced into an advertising-based business model.

Competition Issues Do Exist

Some of our members have expressed concern about what the rise of the Android smartphone platform will mean to revenues. As Android's marketshare rises, developers are increasingly concerned that they will be forced to rely exclusively on advertising revenue, rather than a mix of business models.

Revenue from ad-supported applications is significantly lower; with some companies reporting a 75% difference in earnings. Additionally, the advertising model relies entirely on number of viewers, which limits the viability of smaller, niche products whose value to a broad audience may be limited. Given that Google's Android OS is tied to its dominant search engine and advertising platforms, our members have some concerns about its ongoing effect on competition in the smartphone marketplace.

Chairman Johnson, Ranking Member Coble and distinguished members of the Committee, the future of the digital marketplace looks bright for small business, so long as the marketplace remains dynamic and competitive. I hope that the committee will continue to focus the spotlight on the contribution small business makes to the future of

[9] http://unity3d.com/company/fast-facts

the digital economy and the way government can do a better job to encourage that productive future. Thank you for your time and consideration on this important topic.

8

Mr. JOHNSON. Thank you, sir.
Next, we will hear from Mr. Cleland.

TESTIMONY OF SCOTT C. CLELAND, PRESIDENT, PRECURSOR, LLP, McLEAN, VA

Mr. CLELAND. Thank you, Mr. Chairman and Ranking Member, for the opportunity to testify. My testimony reflects my own personal views and not those of any of my clients in the communications or tech sector.

I have two digital competition insights for you today. The first is a competition digital dichotomy, which is the competition is very different in the physical world of network and devices than it is in the virtual or online world of applications or information. And so the critical difference to finding difference here is in the last 15 years the evolution of competition in the physical world of networks and devices has evolved from monopoly toward competition, while the evolution of competition online and virtual has devolved from very competitive toward monopoly.

And my second point today is the Googlopoly is the main antitrust event. Attached to my written testimony is a 40-page presentation. It is the sixth in my research on this topic. You can find them at googlopoly.net, the previous ones.

Let me run through quickly some of my conclusions. Lax antitrust enforcement tipped Google to monopoly and facilitates Internet media monopolization. More is at stake than competition from an information access monopoly. Googlopoly threatens economic growth, jobs, privacy, intellectual property, a free press, fair elections and cyber security.

There is no net economic growth or no net job creation in a free Internet sector model—only deflationary price spiral, net negative growth, property devaluation, job losses and monopolization. The consumer does not win from a monopoly control over free and full access to distribution.

Google is a vastly more serious antitrust threat than Microsoft ever was. Google has unique total information awareness power, because it tracks most everything that happens on the Internet. Google's monopoly secret weapon is that it has deep tracking inspection of everything that passes through the Google cloud. And Google is not an honest broker in search. It hides multiple serious conflicts of interest.

Now, let me elaborate on a couple of final insights. Lax antitrust enforcement allowed Google to buy its way to an Internet TV monopoly via YouTube, DoubleClick, AdMob, and to extend its search monopoly to Internet streaming video, soon to be rebranded as Google TV.

Now, look at the vertical monopoly Google has bought and assembled right under antitrust authorities' knows—Google Search, effectively a billion-person audience with a uniquely comprehensive remote control and TV guide; YouTube, the dominant Internet video distribution network; DoubleClick, the dominant one-stop Internet advertising agency and Nielsen-like actual measurement mechanism; and then AdMob, the leading mobile advertising network.

The result is a Google Internet TV monopoly, or what I call a monocaster, a billion viewers, that dominant Internet advertising and distribution network, the only comprehensive viewer measurement mechanism, and here no legal media ownership limitations at all, which effectively limit all of Google TV's competitors to a tenth of Google's viewing audience.

It is stunning that Congress, which has long been obsessed with ensuring that no one entity controls the media and which is myopically worried right now about the Comcast-NBCU merger that would have about one-fourteenth of the audience that Google TV will have, has been totally asleep as Google has assembled a global Internet media monopoly right beneath our noses.

And right now Google is at it again. It is trying to buy its way into an eventual monopoly in the travel vertical by buying ITA software. Now, ITA software is the underlying search engine or search software that virtually everybody in the online travel business uses. So DOJ must scrutinize this ITA transaction, because it is the current prime example of how Google buys something and then integrates it in, and because it buys something that is dominant, it adds that with its dominance, and it is largely game over in that new segment.

So don't ignore the blue whale in the antitrust ruling, Googlopoly. I recommend this Subcommittee strongly urge the DOJ to prosecute Google for monopolization of Internet media. Thank you for the opportunity to testify.

[The prepared statement of Mr. Cleland follows:]

PREPARED STATEMENT OF SCOTT C. CLELAND

Written Testimony of
Scott Cleland
President, Precursor® LLC

"The Evolving Competition Digital Dichotomy & Why Googleopoly is the Main Antitrust Event"

Before the
House Judiciary Subcommittee On Courts & Competition Policy

Hearing on:
"*Competition in the Evolving Digital Marketplace*"

September 16, 2010

I. Introduction

Mr. Chairman and Members of the Subcommittee thank you for the honor of testifying on the important subject of: "*Competition and the Evolving Digital Marketplace*" I am Scott Cleland, President of Precursor LLC, an industry research and consulting firm, specializing in the future of the converging techcom industry. For the last four years, I have also been Chairman of NetCompetition.org, a pro-competition e-forum funded by telecom, cable and wireless broadband companies. In addition, I have done consulting for Microsoft. **My testimony today reflects my own personal views and not the views of my clients.**

My purpose today is to help the Subcommittee see the proverbial forest for the trees. In other words, I hope to help distinguish the most important and serious system-wide competition problems in the evolving digital marketplace, from the less serious or not serious competition problems that may be garnering the attention of the subcommittee.

The outline of my testimony is as follows:

II. The Competition Digital Dichotomy

In evaluating competition in the evolving digital marketplace, the first order insight is to understand the competition digital dichotomy – that competition is very different in the *physical* world of networks and devices than in the *online/virtual* world of information and applications. **The critical and defining difference** is that over the last fifteen years the evolution of competition in the *physical* world of networks and devices has steadily evolved from monopoly toward competition, while the evolution of competition in the *online/virtual* world of information and applications has steadily devolved from competition toward monopoly.

The competitive trend in the *physical* communications world, which originated in the change in law and policy in the 1996 Telecom Act, was fundamentally anti-monopoly, pro-competition and pro-antitrust.

- *Wireline:* The wise removal of government prohibitions of communications competition has resulted in the U.S. having the most competitive facilities-based broadband market in the world and the most competitive wireless handset market in the world. No other country in the world has a second national broadband infrastructure that reaches 95% of households – cable. As a result, the rest of the world does not enjoy the consumer and investment benefits of real national-scale wireline broadband facilities-based competition. De-competition advocates who yearn for the 1934-era central planning powers afforded by monopoly regulatory policies, derisively and wrongly frame America's unique real facilities-based competition, as a "duopoly" glass-half-empty situation, when the rest of the world has a glass-half-full envy of America's real facilities competition that has fueled hundreds of billions of private broadband investment and spurred broad innovation.
- *Wireless:* De-competition advocates also try and frame the U.S. wireless market, the most competitive in the world by most every measure (choice, price, concentration, innovation, etc.), as somehow not competitive "enough," so again they can impose their 1934-era centrally-planned regulatory policies. The billions spent annually on wireless advertising

is a daily testament to the fierce competitiveness of the American wireless market where consumers have their choice of at least four full service national wireless providers and more handset choice (over 600 handsets) than any nation in the world. Moreover, Clearwire is on path to be a fifth nationwide wireless competitor using WiMax technology and the FCC is poised to approve yet another form of wireless competition leveraging unlicensed "white spaces" broadcast spectrum.

- *Software:* The analogous situation in the *physical* technology world to the 1996 Telecom Act, was Microsoft's monopoly of the PC operating system market and the DOJ's antitrust enforcement action that also allowed the Internet to emerge competitively. Like the 1996 Telecom Act, the 1990's Microsoft antitrust case was anti-monopoly, pro-competition and pro-antitrust.

In stark contrast to the *physical* network/device dynamic of moving from monopoly toward competition, the competitive dynamic in the *online/virtual* world has been the opposite, starting with wide open competition and moving towards monopoly in an environment of and lax antitrust enforcement.

Consider the well-known evidence of this competition toward dominance/monopoly trend:

- Google's dominance of search;
- Google-YouTube's dominance of video streaming;
- Google-DoubleClick's dominance in ad-serving and analytics;
- eBay's dominance of online auctions and epayments;
- Amazon's dominance in e-retailing;
- Facebook's dominance of social networking;
- Skype's dominance of global VoIP calling and video-calling; and
- Twitter's dominance of real time infocasting.

Why does this competition digital dichotomy exist? The reason for this digital dichotomy is more than their starting points of a monopoly origin versus a competitive origin. Simply, the online/virtual world is powerfully different than the physical world. The online/virtual world is characterized by a "winner take all" dynamic. Why is that?

- First, the Internet, by definition, is standardized around Internet protocol. What makes the Internet unique is that it is the most standardized and internationally harmonized technical foundation for communication and commerce -- ever. This near perfect standardization creates unique global universality. Ironically, the Internet's greatest strength, its universality, is also its greatest weakness – **its natural propensity to extreme centralization, concentration, and monopoly power**.
- Second, the online/virtual dimension of the Internet is vastly different than the physical infrastructure and devices that enable it, because the online world generally does not have the friction and inefficiency of governmental borders/sovereignty or the substantial distribution costs/delays that the physical world must overcome. This inherent boundary-less-ness of the Internet allows it to achieve greater and faster economies of scale, scope and reach than any entity ever could hope to achieve in the physical world. These vastly greater virtual economies of scale, scope and reach dwarf potential physical economies, which means that after fixed costs are covered, going-forward incremental costs can be near zero.
- Third, it is also vastly different in that the Internet has exponentially greater *network effects* or inherent the strong-get-stronger perpetual feedback loops, that are powered by Metcalfe's Law where the value of a network is the square of its nodes.
- Fourth, first movers often can develop insurmountable switching costs and user stickiness because of the Internet's unique attributes. The first "free" offering in a segment seizes the monopoly advantage of eliminating the central mechanism of a competitive market – the potential for price competition. In order for a "free" offering to ultimately be commercially viable and sustainable, it must win the race to lock up a dominant share of the user audience for that application. Purveyors of the first-mover "free" model know that they must thwart the possibility of a viable competitor by creating as many switching costs and user stickiness as possible through cookies, passwords, storage, and as many integrated/bundled features, products and services as possible.
- Fifth, there is the "Internet Choice Paradox," a concept I introduced in 2007 Senate antitrust testimony on the Google-DoubleClick acquisition. The "Internet Choice Paradox" is the counter-intuitive reality in a "free" Internet sector model; competition is not "one click away," because advertisers not consumers pay for availability and use of

"free" content. That means there is very limited choice for web publishers and advertisers -- the ones that really pay for the "free" content -- to reach users with their info or ads.

- Counter-intuitively, the Internet is inherently a monopolizing technology.

Now that we see the big picture that the *physical* world of networks and devices are trending imperfectly from monopoly toward competition and that the *online/virtual* world is trending imperfectly toward monopoly, **it is important to see the big picture and to focus on by far the most important and serious competition/antitrust problem in the digital marketplace today – Googleopoly – the "Antitrust Main Event."**

III. Googleopoly – The Main Antitrust Event

What follows is the Executive Summary of my just published study of Google's impact on competition, the economy, pricing, and jobs: "*Googleopoly VI -- Seeing the Big Picture: How Google is Monopolizing Consumer Internet Media and Threatening a Price Deflationary Spiral and Major Job Losses in a Trillion Dollar Sector.*"

A. Recommendation:

The facts and stakes warrant the U.S. DOJ filing a Sherman Section 2 Antitrust Case and the EU Filing a Section 102 Statement of Objections – against Google Inc. for monopolizing consumer Internet media services.

- Since Google increasingly is the Internet for info access and distribution, and also is increasingly monopolizing the consumer Internet media *ecosystem* with a systematic monopolization strategy, a broad antitrust case is warranted, because event-specific investigations/actions are a losing antitrust game of '*whack-a-mole*.'

B. High-Level Conclusions:

1. Lax antitrust enforcement tipped Google to monopoly and facilitates monopolization of consumer Internet media.
2. Google's monopoly platform increasingly is supplanting and dominating the consumer Internet media ecosystem.
3. There is more at stake than competition from a global information access bottleneck; **Googleopoly threatens economic growth, jobs, privacy, intel. property, a free press, fair elections, cyber-security, & sovereignty**.
4. Only Google has a billion user audience, ~all information/advertisers/publishers, & a free-info business model that can sustain pervasive predatory free info/products/services long term. **There's no net-economic-growth or net-job-creation in a "free" Internet sector model -- only: a deflationary price spiral; net negative growth, property devaluation, job losses, and monopolization. Over 20 industries, 200+ US/EU companies, and hundreds of thousands of jobs are at risk from Googleopoly's anti-competitive price deflationary spiral.**
5. The consumer does not win long-term from monopoly-control over "free" information access & distribution.

C. Additional Conclusions:

1. Google is a vastly more serious antitrust threat to consumers and the economy than Microsoft, because the DOJ blocked Microsoft from extending its monopoly vertically into the broader economy, while antitrust authorities have unwittingly aided and abetted Google's vertical monopolization of vast parts of the broader economy.
2. Lax antitrust enforcement allowed dominant Google search to acqnire: YouTube's dominant video-streaming, DoubleClick's dominant display ad-serving/analytics, and AdMob's dominant mobile advertising -- to create a dominant Google TV global "**monocaster**" platform for all types of IP devices with 80% of the video streaming audience and dominance of IP video views/minutes viewed. Only Google TV has **no media concentration limits**.
3. The Internet's greatest strength is also its greatest weakness, in that the Internet's universality naturally leads to extreme centralization, concentration and market power. Thus **Google increasingly is the Internet** for most.

4. Google has systematically assembled all the building blocks in the "*stack*" of necessary capabilities to become the dominant platform of the consumer Internet media ecosystem: a winner-take-all dynamic; omniscient mission and omni-directional ambition; omnivorous info collection; Internet omnipresence; Internet-scalable infrastructure; omnifarious products, services & info types; Internet behavior omniscience; and omnivorous ecosystem share.
5. Google has unique **"Total Information Awareness Power"** where it collects, records, stores, and analyzes most all Internet activity: all the world's information and all market information of usage, traffic, supply and demand; and permission-less profiles of users': personal identifications, locations, intentions, and associations.
6. Google's monopoly power is lasting because of **re-enforcing spheres of monopoly influence --** a monopoly platform surrounded by: 75+ acquisitions; many satellite companies financially dependent on Google for search monetization; thousands of publisher revenue-share "partners;" and a phalanx of free info, products and services.
7. Google's secret weapon is its **"deep tracking inspection"** of everything that passes through Google's cloud, where "innovation without permission" means that Google has to ask no one for permission to use the derivative tracking metadata from anyone: publisher partners, advertiser clients, competitors, proprietary owners or users.
8. Google is **not an honest broker** in search; it hides multiple serious conflicts-of-interest.

D. Google's Monopolization Strategy

1. **Misrepresent conflicts-of-interest to build trust as an honest broker.**
    - Google built an ill-gotten critical mass of user trust through systematic misrepresentation of Google's real broker interests and by not publicly disclosing multiple serious conflicts-of-interest that would be considered fraudulent and deceptive if done in the off-line marketplace.

2. **Systematically foreclose competition.**
    - Google uses unique market-wide metadata information power to find and buy the most strategic first movers cheap before: a business model can form effectively; *revenue* hits the "hockey stick" growth inflection point; a market can be defined for

antitrust enforcement purposes; and others learn what Google knew from analyzing everyone else's proprietary metadata without permission.

- Google co-opts and subordinates actual and potential competitors by providing outsourced search, tracking/analytics, and advertising monetization through opaque and supra-competitive revenue-sharing arrangements that create business dependency on Google.
- Google forces the wholesale price for information access towards zero by copying all information without permission/compensation to make it accessible for free, then forcing an ad-monetization model so that information itself is not valuable, but only access to information & adding functionality to information.
- Google predatorily dumps monopoly-subsidized omnifarious products/services to eliminate competition.

3. **Structure opaque derivative markets so Google can be player, referee, scorekeeper & paymaster all at once.**
    - Google's "auctions" are not auctions between buyers and sellers where the highest price prevails; Google's auctions are a derivative algorithm that discriminates against bidders to award the ad, not to who bids the most, but to who Google *estimates* has the best probability of generating the most derivative ad clicks and hence revenue for Google. Google also unilaterally sets minimum bid prices.

4. **Exclude competitors from information critical to competition.**
    - Google owns and controls uniquely vast and critical datasets (YouTube, Books, Earth/Maps/StreetView, etc.) and makes them publicly accessible and useful to users, but excludes competitive crawling or indexing so competitors cannot offer competitive search results.
    - Google harvests and controls all the derivative "metadata" (data on the data) that the dominant Google Internet media platform produces, i.e. the how, what, where, when, why and how much of most Internet traffic, clicks and behavior, that Google uniquely records to allow Google to create unique derivative metadata profiles of individual users, groups, demographic slices, and the market overall.

5. **Discriminate predatorily against competitors and self-deal in favor of Google info, products and services.**
    - Google detects and impedes emerging search competitors from becoming more competitive by predatory monopoly discrimination using "human raters" to lower their search ranking and increase their price per click, so they have to pay more for less and can't compete; and
    - Google self-deals by using Google's unique knowledge of partners, competitors, and users' proprietary and private information to identify, own and then rank critical building block content first, above partners and competitors, so that competitors cannot succeed.

6. **Front-run partners and competitors by using their own confidential/proprietary information against them.**
    - Google tracks, records and analyzes most all behavior on the Internet, Google's "Total Information Awareness Power," so Google can effectively reverse-engineer the most valuable trade secrets and confidential information from partners and competitors, i.e. their confidential client lists (users, advertisers), *their actual measured* strengths and weaknesses, plans, strategies, and tactics.

VI. Conclusion:

One of the most difficult jobs this Subcommittee has is to sort through all the competition noise and zero in on the most important and serious antitrust problems facing the country, that if they are not addressed appropriately could be disastrous for the economy and the American people. A key takeaway for this subcommittee is that real and serious antitrust issues in the physical world of networks and devices inherently are slower paced and easier to detect -- so they are not going to sneak up and surprise the Subcommittee. In stark contrast, antitrust problems in the fast-paced and opaque online world can and have sneaked up on the Subcommittee in the case of Googleopoly.

While there may be many competition/antitrust issues put forth today for the Subcommittee's attention, don't be distracted and miss the Main Antitrust Event: Googleopoly. No other digital competition threat poses anywhere near the detrimental impact as Googleopoly does. **Googleopoly threatens: the economic recovery, job creation, privacy, jobs, intellectual property, a free press, fair elections, and cyber-security. Don't ignore the blue whale in the antitrust room – Googleopoly. I recommend the Subcommittee urge the DOJ Antitrust Division to enforce the law and sue Google Inc. for monopolization of consumer Internet media -- under Sectiou 2 of the Sherman Antitrust Act.** Let the rule of law work and have the court determine the facts and judge if Google is indeed monopolizing markets.

Thank you again Mr. Chairman and Members of the Subcommittee for the opportunity to share my personal views and analysis on "*Competition in the Evolving Digital Marketplace*."

V. Appendix:

A. Bio

B. Googleopoly VI – How Googleopoly is Monopolizing Consumer Internet Media

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Bio:

Scott Cleland

President, Precursor® LLC

Chairman, NetCompetition®

Scott Cleland is a precursor, a prescient analyst with a long track record of industry firsts. Cleland is President of Precursor LLC, which consults for Fortune 500 clients; authors the "widely-read" PrecursorBlog.com; publishes GoogleMonitor.com and Googleopoly.net; and serves as Chairman of NetCompetition.org, a pro-competition e-forum supported by broadband interests. Nine different Congressional subcommittees have sought Cleland's expert testimony on a wide range of complex emerging issues related to competition; and *Institutional Investor* twice ranked him as the top independent telecom analyst in the U.S. Cleland has been profiled in *Fortune, National Journal, Barrons, WSJ's Smart Money, Investors Business Daily*, and *Washington Business Journal.*

PRECURSOR

Googleopoly VI* Seeing The Big Picture:

How Google is Monopolizing Consumer Internet Media & Threatening a Price Deflationary Spiral & Job Losses in a $Trillion Sector

Why the Facts and the Economic/Societal Stakes Warrant:

The U.S. DOJ Filing a Sherman Section 2 Antitrust Case &

The European Union Filing a Section 102 Statement of Objections

By **Scott Cleland****

President Precursor LLC

scleland@precursor.com

www.Googleopoly.net & www.GoogleMonitor.com

September 13, 2010

* *See Appendix B for links to Googleopoly I-V research series.*

** *The views expressed in this presentation are solely the author's and not the views of any Precursor LLC clients. See Scott Cleland's full biography at: http://www.precursor.com/bio_long.htm*

Outline

I. Executive Summary
II. How Lax Antitrust Enforcement Facilitated Googleopoly
III. How Google Increasingly is the Internet
IV. How Google Violates Antitrust Law
V. Googleopoly's Deflationary Impact on Economic Recovery
VI. Conclusions & Recommendation

Appendix: Bio & Googleopoly Research

I. EXECUTIVE SUMMARY

Executive Summary:
Recommendation & High-Level Conclusions

Recommendation:

- The facts and stakes warrant the U.S. DOJ filing a Sherman Section 2 Antitrust Case and the EU Filing a Section 102 Statement of Objections – against Google Inc. for monopolizing consumer Internet media services.
  - Since Google increasingly is the Internet for info access and distribution, and also is increasingly monopolizing the consumer Internet media *ecosystem* with a systematic monopolization strategy, a broad antitrust case is warranted, because event-specific investigations/actions are a losing antitrust game of *'whack-a-mole.'*

High-Level Conclusions:

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Executive Summary: Additional Conclusions

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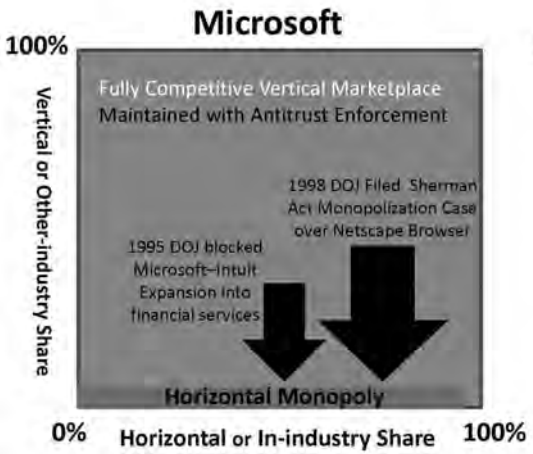
8. Google is **not an honest broker** in search; it hides multiple serious conflicts-of-interest.

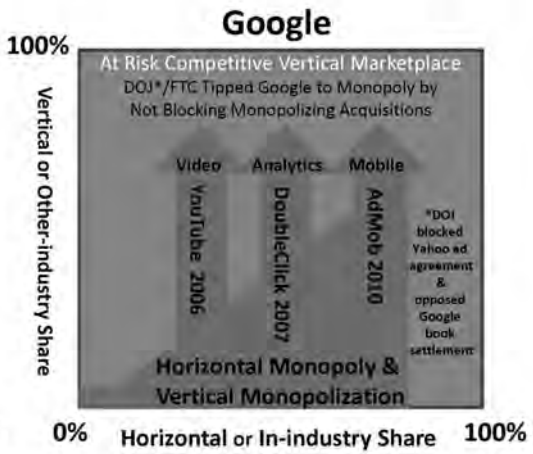
II. HOW LAX ANTITRUST ENFORCEMENT FACILITATED GOOGLEOPOLY

Why Google's a Greater Monopolization Threat Than Microsoft Was
Generally Lax Antitrust Enforcement

DOJ Prevented Vertical Extension of Microsoft's Monopoly by Blocking Intuit and Prosecuting on Netscape



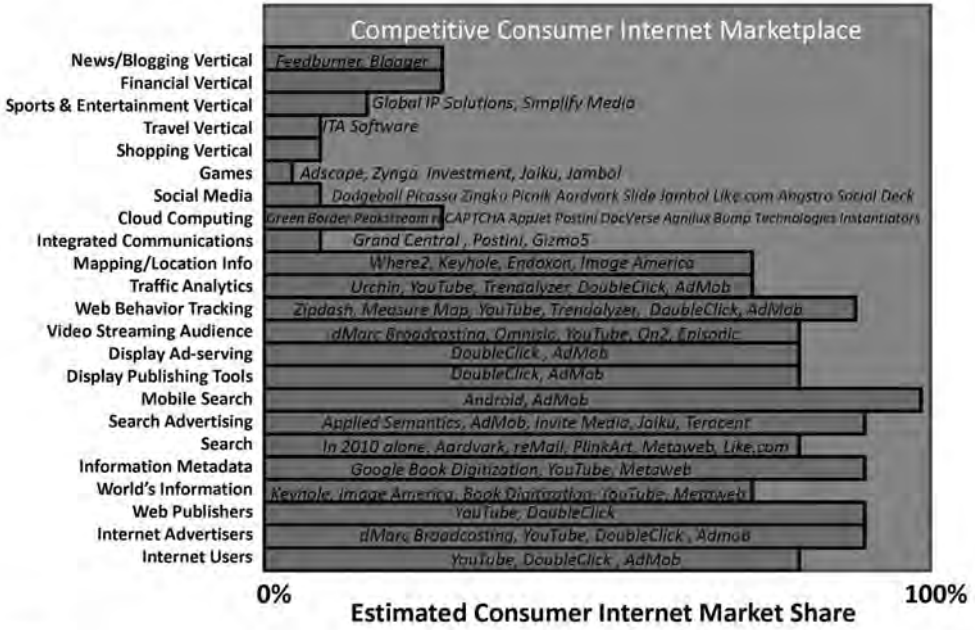
DOJ*/FTC Tipped Google to Monopoly & Facilitated Vertical Monopolization in Approving YouTube, DoubleClick & AdMob



How Google's Acquisitions Have Substantially Lessened Competition

Google's race to lock up market power before the lax antitrust enforcement window closes

Key Google Acquisitions in Italics; Googleopoly in Red; Competitive Consumer Internet in Green

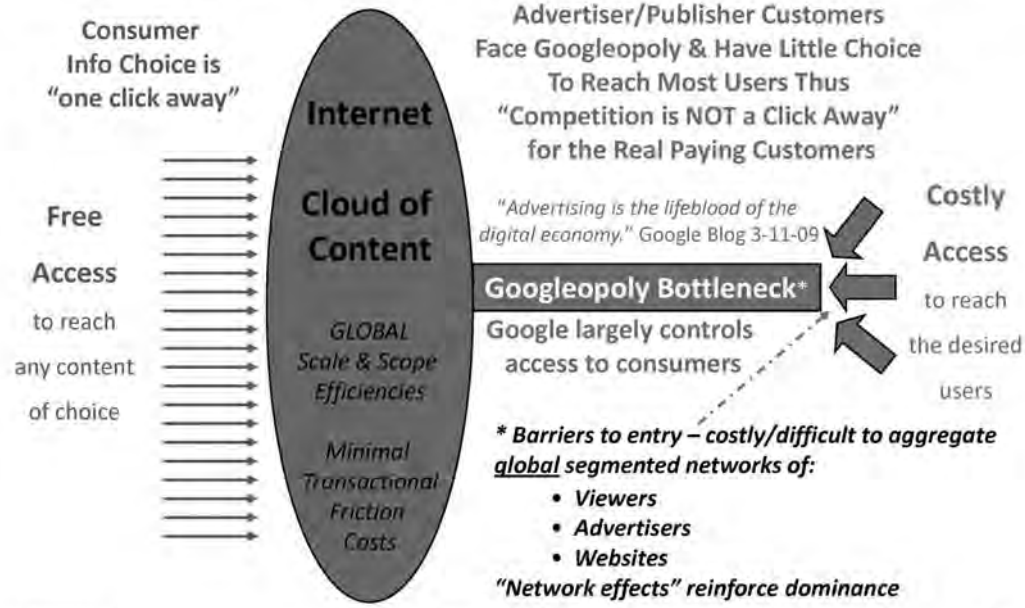


Why Competition Isn't "*One Click Away*" Because of the "*Internet Choice Paradox*"

Advertisers not Consumers Pay for Internet Content

Consumers *are the* Product Advertisers & Publishers Essentially 'Buy' from Google

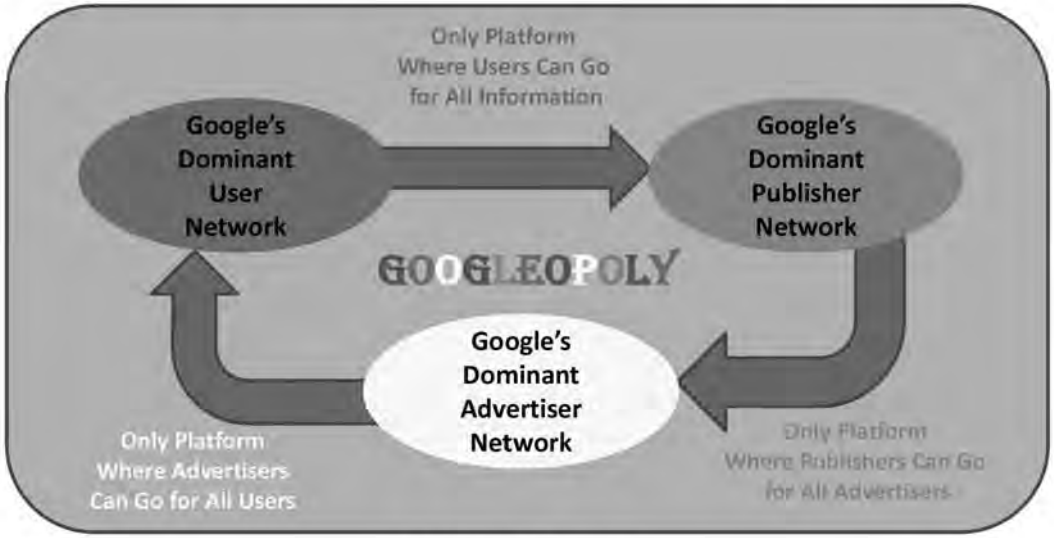
So Competition is Not "One Click Away" for Real Customers: Advertisers/Publishers



How Googleopoly's Core Virtuous Circle & Perpetual Feedback Loop Works

The Most Important Network Effect Antitrust Enforcers Have Under-appreciated

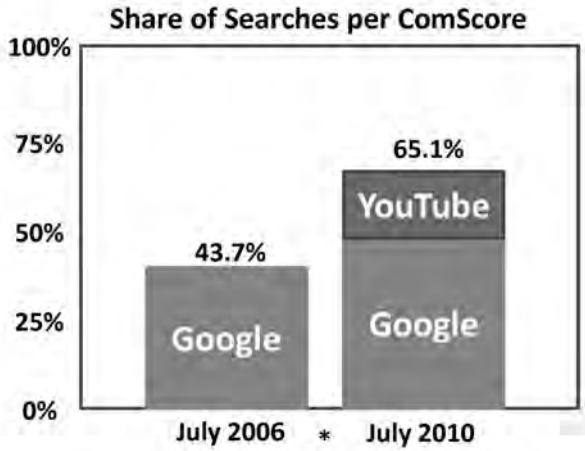
"So more users more information, more information more users, more advertisers more users, more users more advertisers, it's a beautiful thing, lather, rinse repeat, that's what I do for a living. So that's [what] someone alluded to – 'the engine that can't be stopped.'" Jonathan Rosenberg, Google Sr. VP 2-27-08



How YouTube Acquisition Helped Tip Google to Monopoly

~75% of Google's Search Market Share Gains 7-06 -- 7-10 Were YouTube

YouTube is now second largest generator of searches in the world & 25% of all Google searches



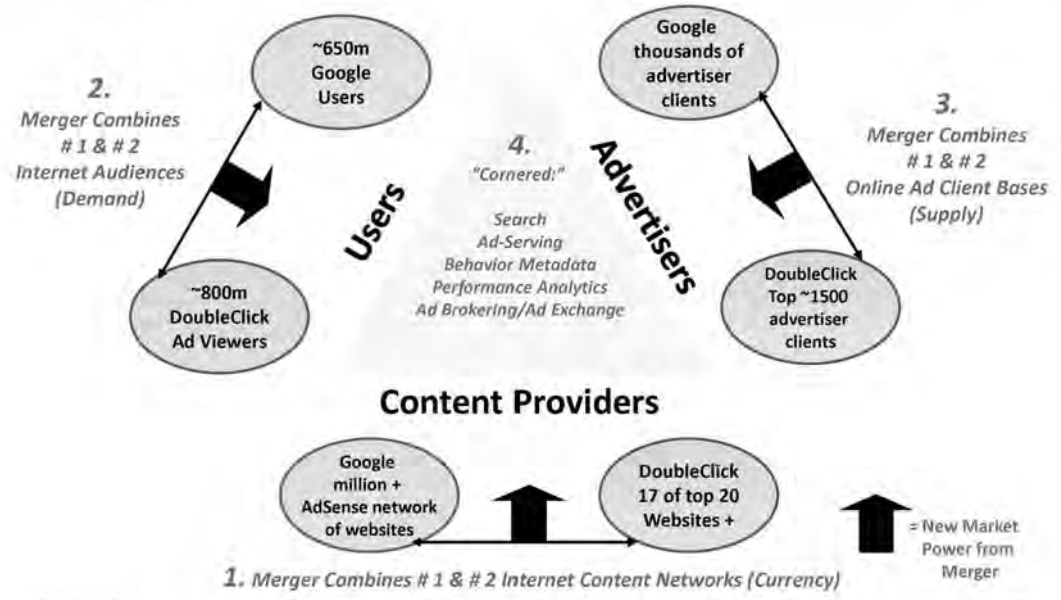
*Google Acquired YouTube 11-06

(DOJ asked for no second request for information)

How DoubleClick Acquisition Tipped Google to Monopoly

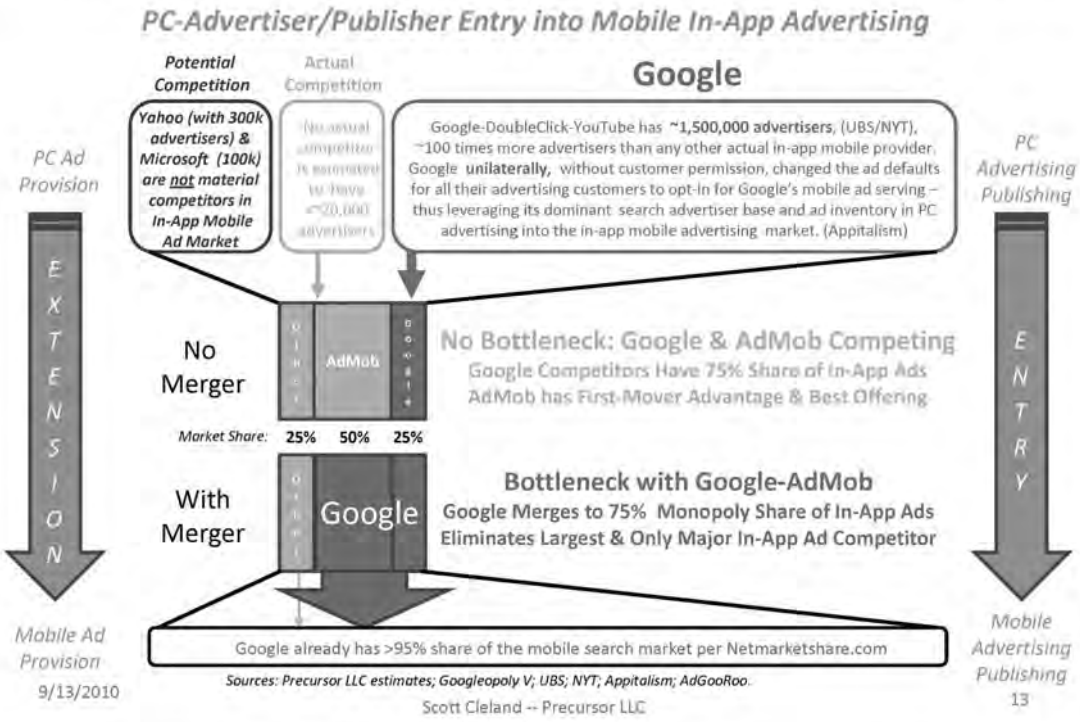
Acquired Most All the Users, Advertisers & Publishers Google Didn't Have

4-1 FTC Approval Created Googleopoly Virtuous Circle & Perpetual Feedback Loop



How FTC Approval of AdMob Ceded Google a Mobile Ad Monopoly

Created a New Bottleneck For Advertisers/Publishers Entering In-App Mobile Advertising



What's One Result of Lax Antitrust Enforcement of Google?
Google TV: Global Internet Monocaster

Controlling access to most Internet users, publishers, & advertisers, is it surprising:
Google-YouTube owns ~80% of video streaming audience?
Google dominates online video sessions viewed & viewed minutes?

ComScore Video Metrix Chart – July 2010
Top U.S. Online Properties by Video Content Views Ranked by Unique Video Viewers

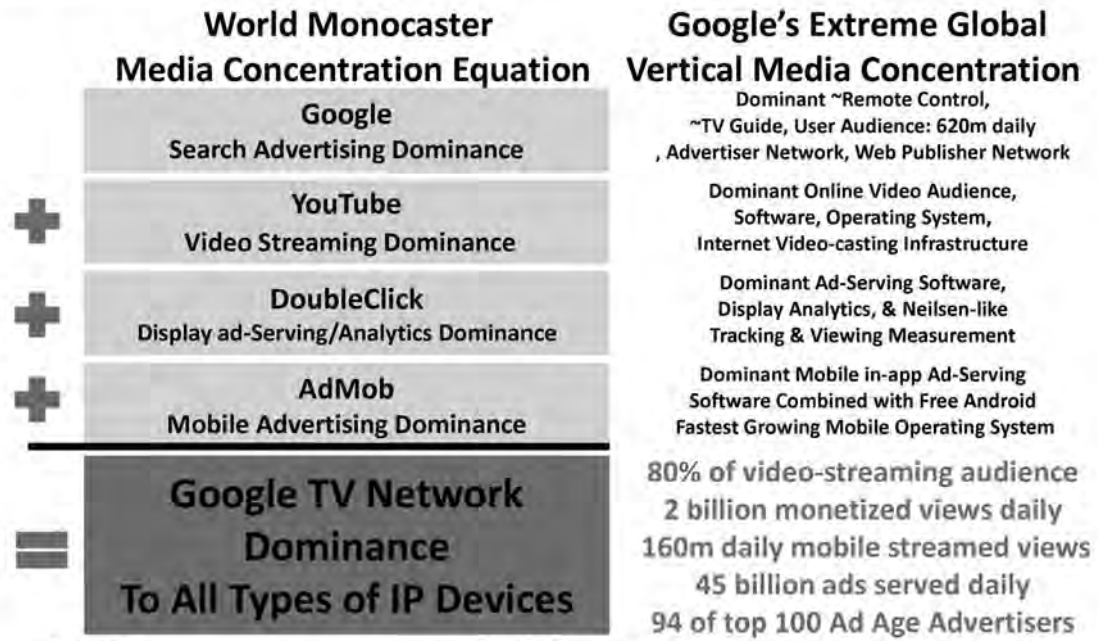
Property	Total Unique viewers (000)	% of Unique Viewers	Viewing Sessions (000)	% of Viewing Sessions	Minutes per Viewer	% of Viewed Minutes
Total Internet Audience	178,148		5,234,655		882	
1 Google Sites	143,226	80.4%	1,884,498	36.0%	282.7	32.1%
2 Yahoo Sites	55,107	30.9%	238,322	4.6%	28.6	3.2%
3 Facebook .com	46,571	26.1%	166,186	3.2%	18.3	2.1%
4 Microsoft Sites	45,558	25.6%	219,149	4.2%	40.2	4.6%
5 VEVO	43,911	24.6%	202,091	3.9%	68.5	7.8%
6 Fox Interactive Media	38,136	21.4%	164,760	3.1%	27.2	3.1%
7 Turner Network	33,442	18.8%	107,793	2.1%	25.3	2.9%
8 Viacom Digital	30,715	17.2%	70,617	1.3%	44.8	5.1%
9 Disney Online	28,475	16.0%	64,104	1.2%	6	0.7%
10 Hulu	28,455	16.0%	153,845	2.9%	158	17.9%

How Did Lax Antitrust Enforcement Create a Monocaster?

Add search dominance with acquisitions dominant in video, display, & mobile!

"YouTube is a big component of our display revenue, and display is our next big business." Google CEO Schmidt NYT 9-3-10

"Ultimately our goal at Google is to have the strongest advertising network and all the world's information." Google CEO Schmidt 8-23-06



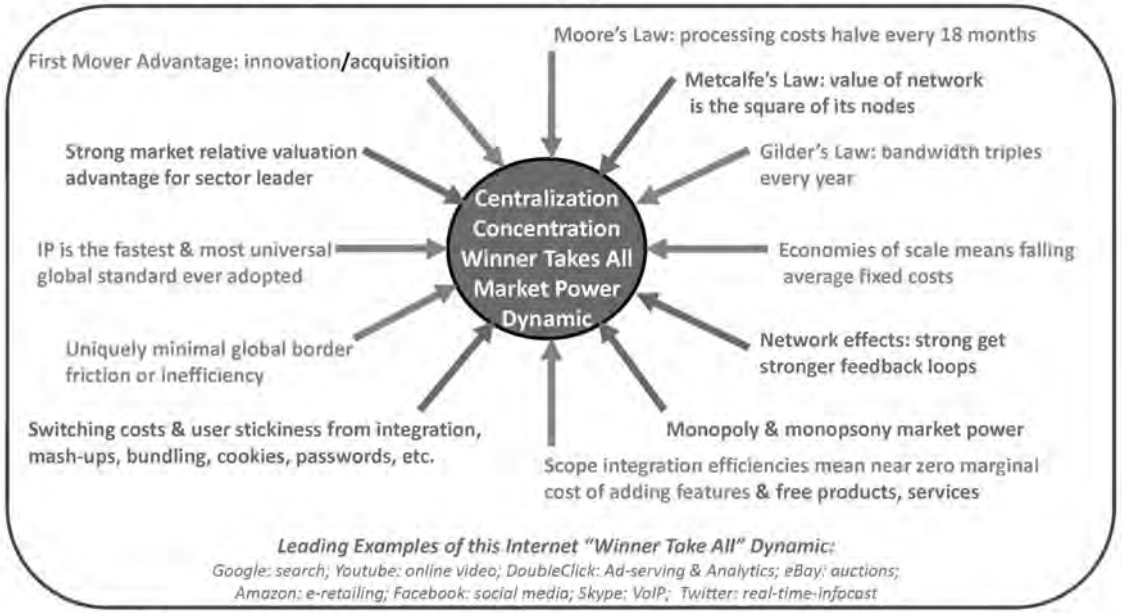
III. HOW GOOGLE INCREASINGLY IS THE INTERNET

How The Internet's Greatest Strength Is Its Greatest Weakness

How Internet Universality Leads to Centralization, Concentration & Market Power

And Why Google Increasingly is the Internet for More & More People

"What Google has done is simply take every feature in every product on the market and put them all into one system, and then make it available for free." Brandt Dainow, iMedia Connection 7-31-07



Leading Examples of this Internet "Winner Take All" Dynamic:

Google: search; Youtube: online video; DoubleClick: Ad-serving & Analytics; eBay: auctions; Amazon: e-retailing; Facebook: social media; Skype: VoIP; Twitter: real-time-infocast

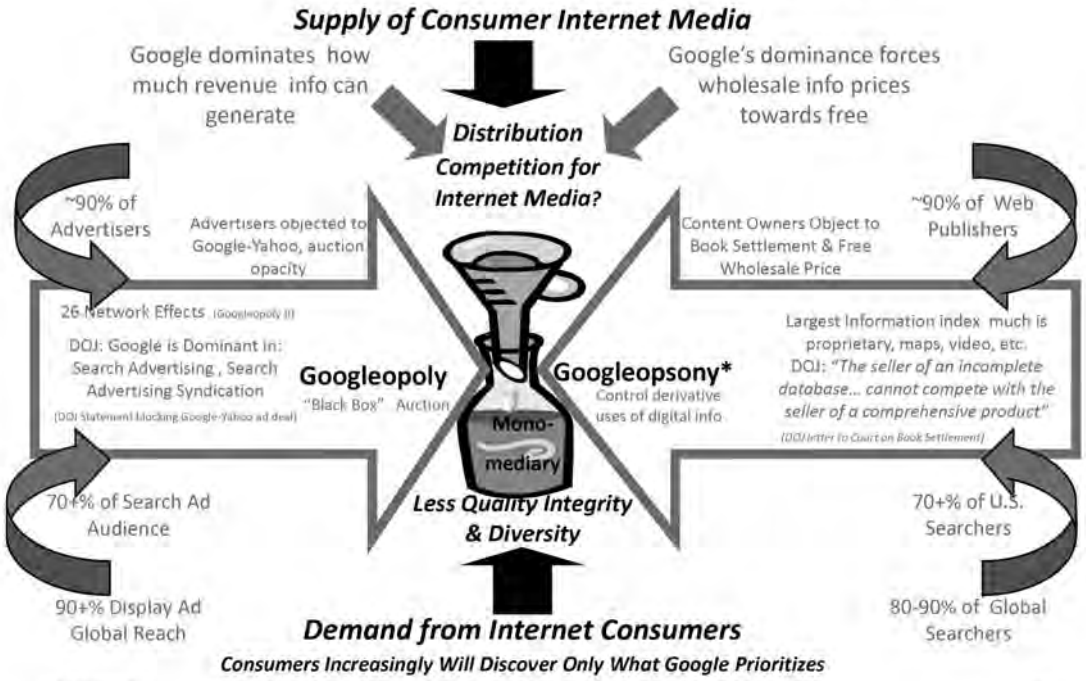
Why Google is the Internet Media Ecosystem's Consumer Platform

"Anything that benefits the Internet ecosystem will benefit Google." Google's Peter Greenberger 3-2-10

"The Internet makes information available; Google makes it accessible." Google's Hal Varian 11-3-09

Consumer Internet Ecosystem Building Block Capability "Stack"	Why Google is Emerging as the Consumer Internet Media Ecosystem's Monopoly Platform
Consumer Internet Ecosystem Omnipotence	The consumer Internet media ecosystem increasingly will determine: what information most people read, view, hear, learn and find; which products and services most people demand, buy or consume; which companies and organizations succeed or fail; and how competitive and diverse the world Internet Media business and environment will be for consumer and voters
Omnivorous Ecosystem Share	Google currently commands: ~80% of global searches; 90+% of search advertising revenues; 98% of mobile searches; 80+% of unique online video viewers; ~90% share of web and website use analytics; a dominant share of mapping/location usage; only searchable database of most all videos online; only searchable database of millions (12) of digitized books; etc.
Internet Behavior Omniscience	Google is unique in having "Total Information Awareness" Power as the only entity on earth that can: track most all Internet usage, clicks, views, etc. via tracking of their unique access to 80% of global users and 90% of commercial advertisers and publishers; profiles user identifications, location, intent and associations; and monitor most all market behavior informatio and world's info
Omnifarious Information Types	Most all info types: News, articles, videos, images, maps, pictures, books, shows, movies, songs, blogs, research, presentations, podcasts, emails, documents, desktop hard drives, voice prints, face-prints, click-prints, personal info, health records, financials, contact lists, group lists, addresses, emails, domains, WiFi SSID, Mac, phone numbers, Analytics, graphs, charts, languages, histories, dictionaries, trends, prices, etc.
Omnifarious Products & Services	Most all product/service types: Search, Images, Videos, Maps, News, Shopping, Gmail, Books, Finance, Translate, Scholar, Blogger, YouTube, Analytics, Calendar, Picasa, Docs, Reader, Sites, Groups, Places, Alerts, Checkout, Chrome, Directory, Earth, Goog-411, Voice, iGoogle, Trends, Google Health, Code, Labs, Knol, Orjut, SketchUp, Talk, Mobile, Pack, etc.
Internet-Scalable Infrastructure	Only Google has only Internet infrastructure (datacenters, databases, storage, servers & bandwidth) designed to fully scale with Internet growth; Google's BigTable distributed database design can store, process and design virtually unlimited info; Google's server-virtualization design is world's most effidient; Google's fiber network carries more IP traffic than any in the world
Internet Omnipresence	Only Google serves most all Internet users (~80%), advertisers (~90%) & publishers (~90%); Only Google translates 57 languages, comprising ~90% of Internet users
Omnivorous Information Collection	Google's self-described *"omnivorous"* search engine is uniquely universal in being designed to incorporate all types of info and also a searcher's *"total context"* i.e. location, experience, intent
Omni-directional Ambition Omniscient Mission	Unique mission: *"organize the world's information and make universally accessible and useful,"* routinely organizing others' information that's copyrighted, proprietary, private, secret, sensitive
"Winner Takes All" Internet Dynamic	Internet universality naturally facilitates Google's centralization, concentration, & market power

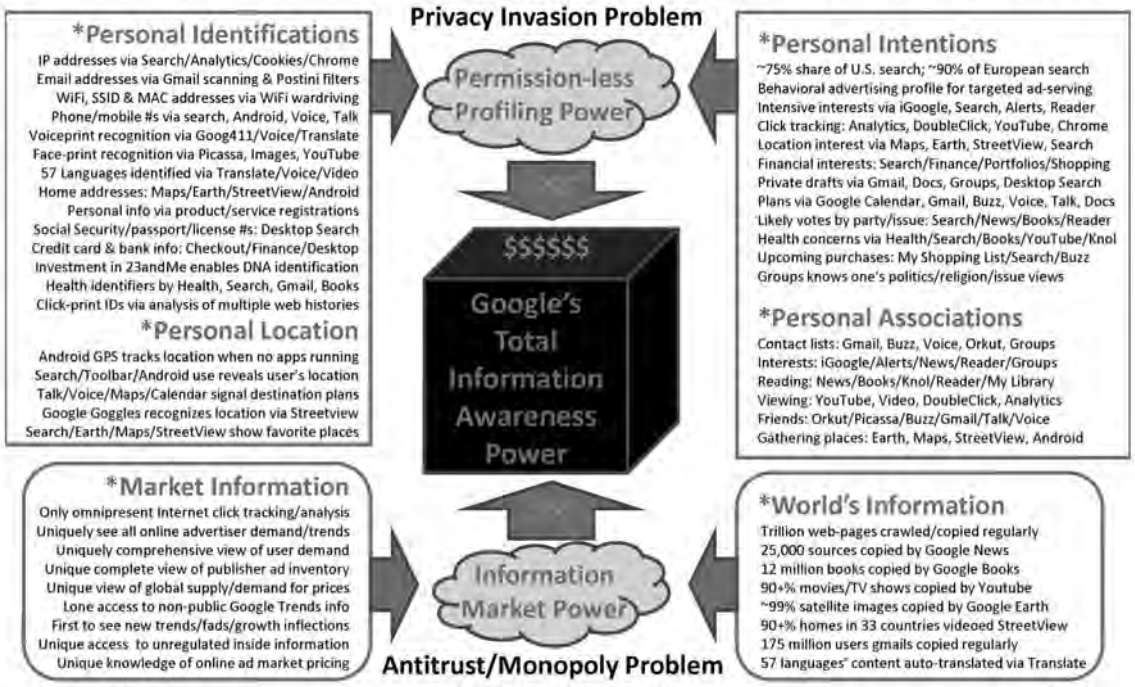
How Google's Mono-mediary Hub Platform is an Internet Media Bottleneck
Or When Googleopoly Meets Googleopsony



How Google Uniquely Has "Total Information Awareness" Power

***"We are very early in the total information we have within Google... we will get better at personalization."* Google CEO, FT 5-22-07**

*Information now available for: Googleopoly's leverage, law enforcement subpoena, national security access, & hackers to steal



How Google's Chief Economist Explains the Market Power Behind Google's Dominance of Consumer Internet Media

Steve Levy of Wired shares Google Chief Economist Hal Varian's take on"Googlenomics"*:

- *"Googlenomics actually comes in two flavors: macro and micro. The macroeconomic side involves some of the company's seemingly altruistic behavior, which often baffles observers. Why does Google give away products like its browser, its apps, and the Android operating system for mobile phones?* ***Anything that increases Internet use ultimately enriches Google, Varian says. And since using the*** *Web without using Google is like dining at In-N-Out without ordering a hamburger,* ***more eyeballs on the Web lead inexorably to more ad sales for Google." [Bolds*** **added for emphasis.]**
- *"The microeconomics of Google is more complicated.* ***Selling ads doesn't generate only profits; it also generates torrents of data about users' tastes and habits, data*** *that Google then sifts and processes in order to predict future consumer behavior, find ways to improve its products, and sell more ads. This is the heart and soul of Googlenomics. It's a system of constant self-analysis: a* ***data-fueled feedback loop that defines not only Google's future but the future of anyone who does business online." [Bolds added for emphasis.]***
- *"...Varian believes that a new era is dawning for what you might call the datarati— and* ***it's all about harnessing supply and demand, "What's ubiquitous and cheap?"*** *Varian asks. "Data." And* ***what is scarce? The analytic ability to utilize that data."*** [Bolds added for emphasis.]
- *"Varian, of course, knows that his employer's success is not the result of inspired craziness but of an early recognition that the Internet* ***rewards fanatical focus on scale, speed, data analysis, and customer satisfaction." [Bold added for emphasis.]***

*Steven Levy, *"The secret of Googlenomics, data-fueled recipe brews profitability," Wired Magazine, 5-22-09,*

- http://www.wired.com/culture/culturereviews/magazine/17-06/nep_googlenomics?currentPage=all

IV. HOW GOOGLE VIOLATES ANTITRUST LAW

Google's Monopolization Strategy

"It's obvious what our strategy should be. It's to work on problems on a scale no one else can." Sergey Brin, Wired UK 6-30-09

- Misrepresent conflicts of interest to build trust as an honest broker.
  - Google built an ill-gotten critical mass of user trust through systematic misrepresentation of Google's real interests and by not publicly disclosing serious conflicts of interest that would be considered fraudulent and deceptive if done in the off-line marketplace.
- Systematically foreclose competition.
  - Google uses unique market-wide metadata information power to find and buy the most strategic first movers cheap before: a business model can form effectively; *revenue* hits the "hockey stick" growth inflection point; a market can be defined for antitrust enforcement purposes; and others learn what Google knew from analyzing everyone else's proprietary metadata without permission.
  - Google co-opts and subordinates actual and potential competitors by providing outsourced search, tracking/analytics, and advertising monetization through opaque and supra-competitive revenue-sharing arrangements that create business dependency on Google.
  - Google forces the wholesale price for information access towards zero by copying all information without permission/compensation to make it accessible for free, then forcing an ad-monetization model so that info itself is not valuable, but only access & functionality.
- Structure opaque derivative markets so Google can be player, referee, scorekeeper & paymaster all at once.
  - Google's "auctions" are not auctions between buyers and sellers where the highest price prevails; Google's auctions are a derivative algorithm that discriminates against bidders to award the ad, not to who bids the most, but to who Google *estimates* has the best probability of generating the most derivative ad clicks and hence revenue for Google. Google also unilaterally sets minimum bid prices.
- Exclude competitors from information critical to competition.
  - Google owns and controls uniquely vast and critical datasets (YouTube, Books, Earth/Maps/StreetView, etc.) and makes them publicly accessible and useful to users, but excludes competitive crawling or indexing so competitors cannot offer competitive search results.
  - Google harvests & control s the derivative "metadata" (data on the data) that the dominant Google Internet media platform produces, i.e. the how, what, where, when, how, why & how much of most all the Internet traffic, clicks and behavior that Google uniquely records to allow Google to create unique derivative metadata profiles of individual users, groups, demographic slices, and the market overall.
- Discriminate predatorily against competitors and "self-deal" in favor of Google info, products and services.
  - Google detects and impedes emerging search competitors from becoming more competitive by predatory monopoly discrimination using "human raters" to lower their search ranking and increase their price per click so they have to pay more for less & can't compete;
  - Google self-deals by using Google's unique knowledge of partners, competitors, and users proprietary/private information to identify, own and then rank critical building block content first, above partners and competitors, so that competitors cannot succeed.
- Front-run partners and competitors by using their own confidential/proprietary information against them.
  - Google tracks, records and analyzes most all behavior on the Internet, Google's "Total Information Awareness Power," so Google can effectively reverse-engineer the most valuable trade secrets and confidential information from partners and competitors, i.e. their confidential client lists (users, advertisers), *their actual measured* strengths and weaknesses, plans, strategies, and tactics.

How Google Rigs their Info-Casino Game – So they Can't Lose

- Google deals itself Aces that are hidden in its sleeve.
  - Google manually ranks Google-owned content first: Maps, YouTube, Mobile, etc., despite representations that Google "*never manipulates search rankings to put our partners higher in search results*"
- Google deals its competitors bad cards opaquely from bottom of the deck.
  - Google's "human raters" opaquely and mysteriously assign "*quality scores*" so certain competitors rank low in results and have to pay more to get less traffic
- Google alone sees & counts everyone's else's cards -- so they can't lose.
  - Only Google tracks all players information, connections, interests, click-paths
  - Only Google profiles/categorizes each user into demographic target groups
  - Only Google can reverse-engineer publishers' audience and advertiser lists to create Google content/products/services that front-run/skim off publishers
  - Only Google knows all advertiser demographic demand so Google can front-run its publisher-partners with Google-owned content/products/services
- Google alone decides: who can play which hands; what the specific ante is.
  - Google alone: decides who can bid on which keywords, & sets price minimums
- Google runs a 'black box' – no transparency to keep the dealer honest.
  - Google excludes competitors from the game who could spot double-dealing
  - Google alone keeps score and counts clicks with no one watching
  - Google alone decides the worth of each click type with no one watching

Why Google is Not an Honest Broker

It Hides Multiple Serious Conflicts-of-Interest

- Google may have devised the most conflicted business model ever – in funneling and ranking all the world's information, for most all the world's users, advertisers, and publishers, *through one single gateway*, for money, without anyone's permission, and without any independent third-party accountability mechanisms.
- Who does Google work for?
  - Google users whom Google claims it works for, but who don't pay Google for most anything?
  - Google advertisers who actually are Google's real customers or users who Google claims it works for?
  - Google publishers, who Google calls its "partners," since they revenue-share with Google?
  - Google shareholders whose votes don't matter since Founders granted their stock 10 votes per share?
- Which Google role rules and how are Google's conflicting roles represented and/or resolved?
  - Google as *player/competitor* in owning content, products and services?
  - Google as *referee* in manually setting website quality scores or censoring info from search/advertising?
  - Google as *scorekeeper* in ranking everyone's information?
  - Google as *paymaster* in running "derivative non-auctions" for most all of the industry?
  - Google *as proprietary owner* of the dominant consumer Internet media platform?
- Unlike every other public broker role in finance, real estate, auctions etc. -- which must disclose and publicly manage conflicts-of-interest fairly in order to operate as an "honest broker" and avoid charges of misrepresentation or fraud -- Google does not even publicly acknowledge the existence of its multiple serious conflict-of-interest, or that they could potentially harm consumers, customers, or the public.

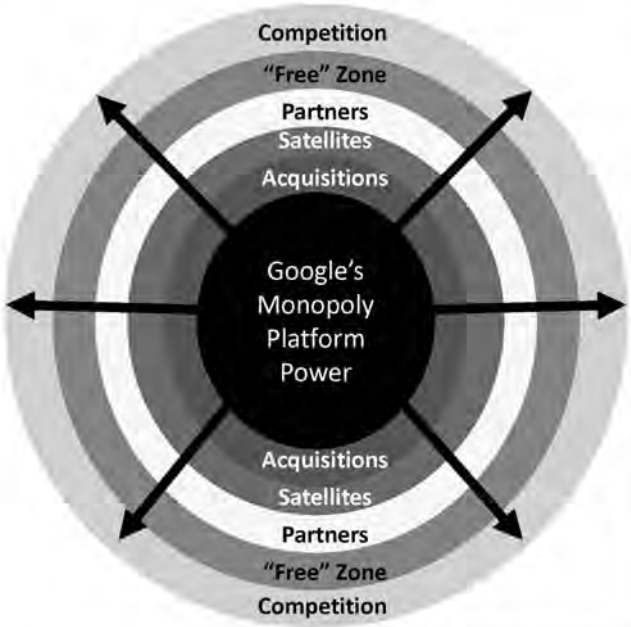
How Google is Systemically Anti-Competitive

Consumer Internet Ecosystem Building Block Capability "Stack"	How Google Abuses its Platform Monopoly To Harm the Consumer Internet Media Ecosystem
Consumer Internet Ecosystem Omnipotence	Only Google has self-described "king maker" power to determine what information or applications are found, used, read, viewed, etc., & which businesses succeed or fail on the Net.
Omnivorous Ecosystem Share	Google has leveraged acquired dominance of users, advertisers, publishers, and exclusionary information practices to dominate search, search advertising, Mobile advertising, &video streaming; display ad-serving/tools/analytics, Mapping, video streaming, and web behavior tracking.
Internet Behavior Omniscience	Google's "*innovation without permission*" is viewed by Google as cart blanche to collect whatever information it can on its users, partners, competitors without respect to privacy, IP or confidentiality.
Omnifarious Information Types	Google includes as many information types as it can in its universal search so it can either have unique or exclusive information so users must use Google as their search engine.
Omnifarious Products & Services	Google predatorily subsidizes new products & services in order to commoditize search complements to foreclose actual and potential competition to Google.
Internet-Scalable Infrastructure	No other company has the monopolistic vision of designing an infrastructure to scale with the entire internet nor will any other company be willing to take the security, business, property, and privacy risks of Google's "BigTable" – all-eggs-in-one-basket design.
Internet Omnipresence	Monopoly-tipping acquisitions: YouTube, DoubleClick, & AdMob, network effects, information exclusions, and monopoly discrimination, self-dealing and front-running ensure that no competitor can aggregate a comparable share of Internet users, advertisers and publishers – the vortex of Google's monopoly power
Omnivorous Information Collection	DOJ on Google Book Settlement: "*The seller of an incomplete database… cannot compete effectively with the seller of a comprehensive product.*" Google actively prevents competitors from crawling some of the largest stores of the World's information – YouTube's videos, Google's Maps & 12 million digitized books – publicly accessible to users
Omni-directional Ambition Omniscient Mission	Free market competition depends on rule of law, and contract and anti-fraud enforcement; No law abiding company can compete against a scofflaw which abuses IP, contracts, confidentiality, & privacy for competitive advantage
"Winner Takes All" Internet Dynamic	To the winner go the spoils: Google takes-out first-mover nascent competitors before market definition & revenue competition can form; Self-deals Google content top search result; "Human raters" punish competitors with low quality scores, low rankings, higher prices per click ; Front-run publishers with new content/products/services based on publishers' proprietary information

How Google Has Re-enforcing Spheres of Monopoly Influence

Most of Internet is Either on Google's Payroll or Undercut by its Free Info/Products/Services

"I think the solution is tighter integration. In other words, we can do this without making an acquisition. The term I've been using is 'merge without merging.' The Web allows you to do that, where you can get the Web systems of both organizations fairly well integrated, and you don't have to do it on exclusive basis." Google CEO Schmidt 1-7-09



Black Box Monopoly Platform: Search Engine; Auctions; Quality Score "Human Raters;" Exclusive info/ Metadata

Acquisitions: YouTube = ~80% Video streaming audience share, quarter of all search; DoubleClick = most all users, advertisers, publishers Google did not have, and Dominance in ad-serving and analytics; AdMob = ~75% in-app mobile ad share

Satellite companies dependent on Google for search monetization: AOL, MySpace, Ask.com, Craigslist, and thousands of popular websites

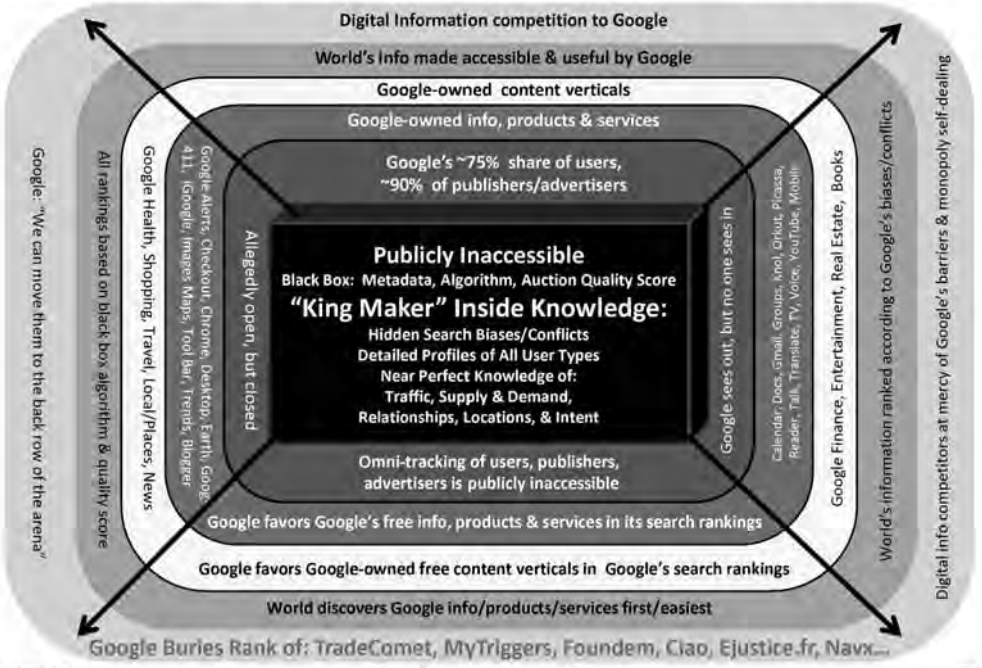
Partners: Tens of thousands of AdWords and AdSense advertisers and publishers share revenues derived from Google's opaque pay-per-click "auction" model

Free Google Content, Products & Services: Search, Images, Videos, Maps, News, Shopping, Gmail, Books, Finance, Translate, Scholars, Blogs, YouTube, Calendar, Photos, Documents, Reader, Sites, Groups, Alerts, Chrome, Desktop, earth, Goog-411, StreetView, Health, Knol, Orkut, Picasa, talk, Voice, iGoogle, etc.

The Shrinking Competition: Those companies not:
Hoping to be acquired by Google;
Dependent on Google for search monetization;
"Partners" in Google's search or display advertising; or
Users of Google's free content, products, & services

How Google Search Discriminates Against Competitors' Content/Distribution

Google's Rapidly Extending its Monopoly Via Search-Favored & Free: Google Information, Products & Services
Can't compete with a search monopoly that ranks/advertises its own info, products & services above everyone else's
"Search is critical. If you are not found, the rest cannot follow." Santiago de la Mora, Google Executive, 8-23-09



Googleopoly's Secret Weapon

Google's "*Innovation Without Permission*" is Code for:

Unfettered "*Deep Tracking Inspection*" or "*Total Information Awareness Power*"

"We can suggest what you should do next, what you care about. Imagine: We know where you are, we know what you like."... "You can literally know everything." Google CEO Schmidt 9-8-10

Deep Tracking Inspection – of everything that passes through Google's cloud

- What virtually no one appreciates except Google is that the Internet is the ultimate **deep tracking inspection** and surveillance technology – when sent through Google's dominant Internet media platform of data centers that copy, store and analyze most all Internet activity.
  - Everything, literally everything that is on the Internet, is ones and zeroes that by design are sent back to Google's cloud data centers for processing, recording, storage and analysis – the only entity in the world with the mission and capability to do so.
- Other things that virtually no one appreciates except Google is:
  - What Google's mantra *"innovation without permission"* means is that Google has to ask no one for their permission to use the derivative tracking metadata from anyone: publisher "partners," advertiser clients, competitors, proprietary owners, or users -- because if the ones and zeroes pass through Google's data centers to be processed and recorded – Google views those ones and zeroes as fair game to use in any way they see fit, because it is Google's self-asserted, universal property right to *"innovate without permission."*
    - In practical terms, innovation without permission means unfettered "fair use," "mash-up," "re-mix," "open source," and 2.0 transparency (i.e. "publicacy, the opposite of privacy).
  - What Google can reverse-engineer from all the ones and zeroes (or metadata -- data about data) that pass through Google's data centers?
    - Google can aggregate the user and advertiser *audience demographic profile* of every publisher and their content down to a page, so that it could create supra-competitive content, products and services that would have the unique inherent advantage of being able to replicate the best of what everyone else does and knows.
- Google's unique deep tracking inspection capability creates "Total Information Awareness Power" where **Google can't lose** because it can use/build upon the secrets, property, and trailblazing success of everyone else -- without permission.
  - It would be like before a football season, one team had access to a copy of every opponents' scouting reports, playbooks, game plans and signals – because they owned the league/platform that everyone else used to compete.

What are Google's Topical Monopolization Issues?

- **Pending Antitrust Suits Against Google:**
  - **US: TradeComet & MyTriggers;**
  - **EU: Foundem, Navx, Ejustice, Ciao**
- **Yahoo-Japan/Google Search/Ad Outsourcing Agreement:**
  - Grants Google 90+% of Japan's searches; increases Google's world search share from ~70% to ~74%; eliminates search competition.
- **Google Book Settlement (GBS):**
  - DOJ opposes GBS: as it would *"grant Google sweeping control over digital commercialization of millions and millions of books;"* and *"good intentions of members of a price-fixing combination are no legal justification for lessening price competition."* (Per DOJ)
- **ITA Travel Software Acquisition:**
  - Expedia Chairman Barry Diller: *"I think it is disturbing that Google is moving into serving individual spaces, rather than being search neutral,"... "It is a dangerous step because it is inevitably going to cause problems with customers..."* (per FT)
  - Greenlight COO Pourus: Google has become the *"ultimate informational intermediary;"* All intermediaries *"should now be rethinking their business models."* (per Comm Daily)
- **Metaweb Acquisition:**
  - Google's acquiring MetaWeb, the leading semantic web database of more than 12 million "things;" it was probably the most critical building block for a potential search competitor to compete with, and differentiate from, Google search; while the raw database will be open and accessible to the public, only Google will collect and know the who, when, where & how semantic information is used.
- **Zynga Games Investment by Google:**
  - Online games like Zynga's provide ~30% of traffic to FaceBook and social media and represent a substantial portion of their monetization potential; Google is co-investing with Yahoo-Japan owner SoftBank, which appears to be a possible quid pro quo reward to SoftBank for choosing Google for Yahoo-Japan's search.

V. GOOGLEOPOLY'S DEFLATIONARY IMPACT ON ECONOMIC RECOVERY

How Google Plays the Leading Role in the Internet Deflationary Spiral

- *"Internet distribution does not work if it is built on the economics of scarcity, but only works with ubiquity and abundance economics,"* Google CEO Schmidt told the Newspaper Association, April 9th 2009.
  - *"Ubiquity"* is code for Google's mission to make all the world's information accessible for free.
  - *"Abundance economics,"* per Wikipedia, is **"post-scarcity"** which *"describes a hypothetical form of economy or society, often explored in science fiction, in which things such as goods, services and information are free, or practically free. This would be due to an abundance of fundamental resources (matter, energy and intelligence), in conjunction with sophisticated automated systems..."* i.e. Googleopoly's Internet platform of today.
- Chris Anderson, Author of *"Free – The Future of a Radical Price"* said: Google's chief economist Hal Varian *"taught me everything I know about free;" "Google...is the citadel of free;" and "Google is the poster child of making money around free."*
- **Only Google has the audience, business model and capability that can thrive long term on free content, products and services.**
- Google increasingly is the Internet and is systematically monopolizing Internet media via the ultimate price deflation of... free.
  - Google provides search for free to over 600m users daily and over a billion users weekly, and monetizes free search, and all Google's free products and services, with its DOJ-determined monopoly in search advertising.
  - Google, via acquisition of dominant YouTube, DoubleClick and AdMob, now has a monopoly in free IP-video distribution.
  - Google also offers most every major type of Internet product and service for free or near free -- supported by advertising.
  - Google digitized 12 million books without the permission of copyright holders and makes them available to search for free; (authors and publishers have sued Google for copyright infringement and then settled for about $10 a book. The DOJ opposes the settlement as a violation of copyright and antitrust laws).
  - Google-YouTube assumed copyrighted video should be free: *"There is no question that YouTube and Google are continuing to take the fruit of our efforts without permission and destroying enormous value in the process. This is value that rightfully belongs to the writers, directors and talent who create it and companies like Viacom that have invested to make possible this innovation and creativity."* per Viacom's press release.
- **Déjà vu:**
  - People get the deflationary spiral, property devaluation and job losses free Napster-ization caused the music industry.
  - People understand the deflationary spiral, property devaluation and job losses that free "Google News" aggregation of all 25,000 news sources, and free classified ads from Google satellite Craisgslist caused the newspaper/journalism industry.

How Google Has a Deflationary Impact on the Economic Recovery

Internet-Related Distribution Is an At-Risk Trillion-Dollar Sector Employing Millions

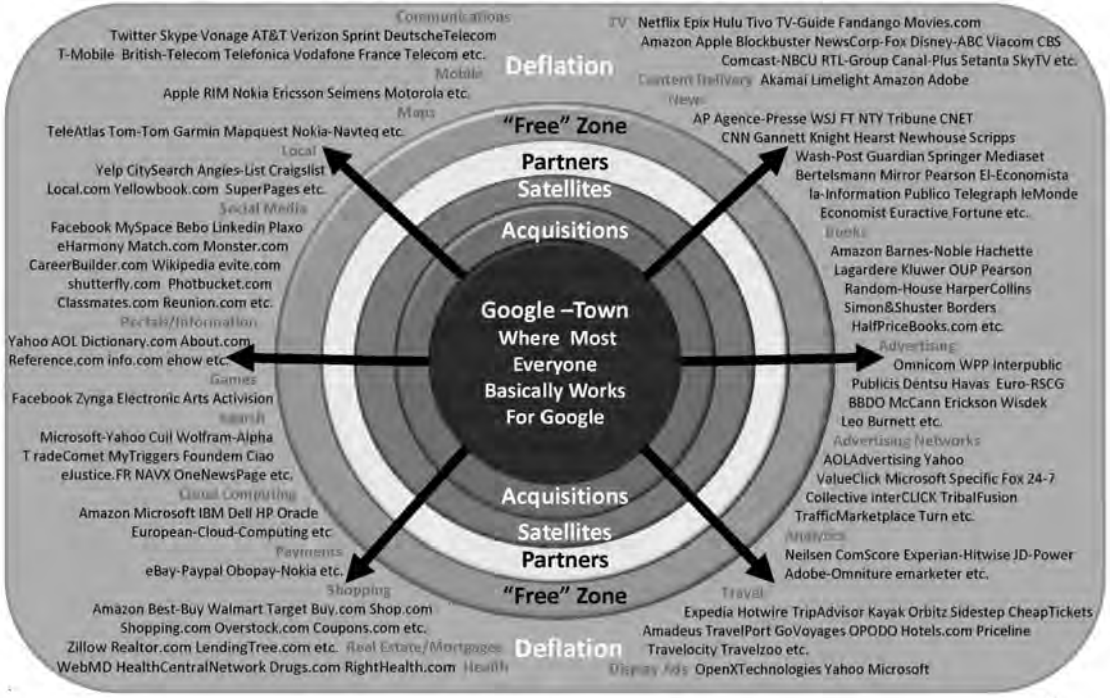
"The brutal economic answer is that the Internet does in fact change other people's businesses because of this massive distribution..." "We should just acknowledge that and not hide from it." Google CEO Schmidt 6-21-09

- **There's no net economic growth, job creation or property value creation in a "free" Internet sector model, only: a deflationary price spiral; net negative growth, property devaluation, job losses, and monopolization.**
- The *"Google Economic Effect:"*
  - *Deflates* the price for information, products and services to free -- so only targeted advertising can succeed;
  - *Eliminates* competition-driven: quality, diversity of choice, and innovation;
  - *Centralizes/concentrates* Internet distribution, which makes the economy highly vulnerable to *systemic* disruption.
  - *Reduces* employment because Google views people as inherently inefficient relative to Internet automation, and because Google views customer service personnel as unnecessary, and most sales and marketing personnel as redundant.
  - *Obsoletes* several hundreds of thousands of jobs rapidly -- much more quickly than the deflated Internet sector can absorb.
- Google is an unstable and unpredictable business platform for others to build businesses on.
  - While Google's ~$25b ad "auction" platform is efficient *for Google*, it is not a stable economic platform/foundation on which other companies can predictably grow and thrive.
  - Google's Internet economy is an opaque, unaccountable, intellectual-property/privacy-unfriendly, "black box" where the foundation of ranking quality scores and search/auction algorithms are constantly shifting sands.
  - Google's CEO went so far to tell a gathering of magazine publishers in October of 2009 that: *"We don't actually want you to be successful. The company's algorithms are trying to find the most relevant search results, after all, not the sites that best game the system."* In other words, Google views efforts by web publishers to compete and improve their search ranking as -- spam and manipulation – not normal competition! Simply, only Google is allowed to influence what information is ranked high.
- Google also has grossly overstated its economic impact publicly.
  - Google has double and triple counted its economic impact; it has not subtracted their consumption from their production to reach a net economic contribution figure; and it has completely ignored vast Google-generated negative externalities, including: the price deflation of free, job losses, and massive Google cost-shifting to individuals, suppliers and government.

What Are the Industries/Companies in Googleopoly's Deflationary Path?

>200 info-distribution companies are at risk of being annexed, controlled, subjugated or commoditized by Google

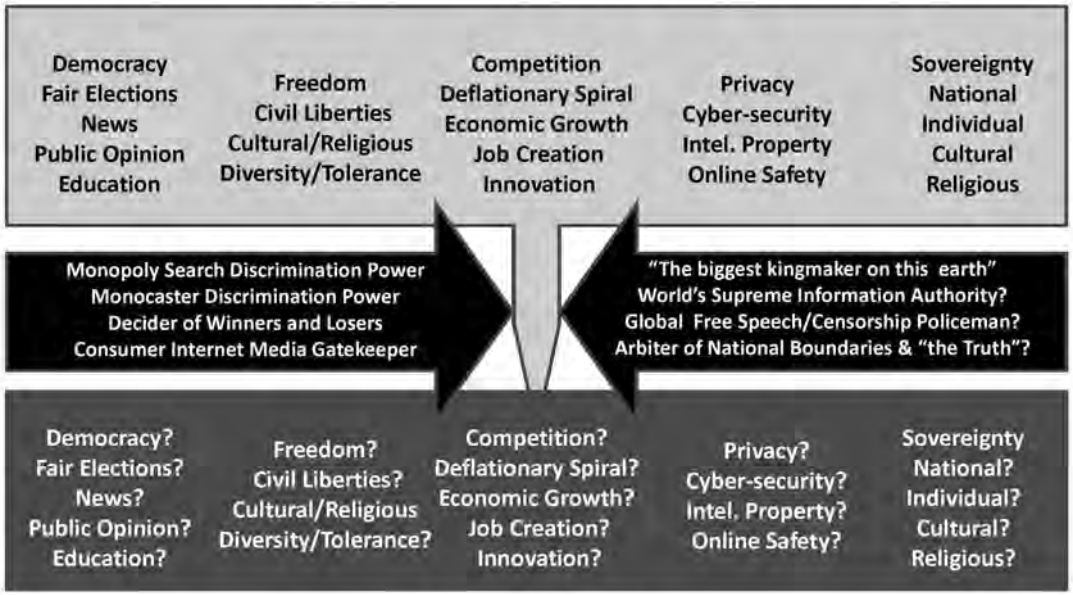
"Our model is just better. Based on that, we should have 100% share." Google CEO Schmidt 12-10-09



VI. CONCLUSIONS & RECOMMENDATION

Why Are the Stakes So High?

What's at risk from a global monopoly bottleneck over how most access, use and monetize the world's information?



How are Consumers Harmed by Innovation & Free Products/Services?

- **Google's core antitrust defense is: where is the harm to consumers from all Google's innovation and free products and services?**
  - Essentially Google argues that Google-led innovation and free subsidized products and services are superior to, and more consumer-beneficial than, all competitors' offerings and hence Google is better than a competitive market.
  - Unfortunately that is more an argument against competition and antitrust law than antitrust enforcement.
  - The fundamental premise of antitrust law and over a century of experience rejects this Google-is an-exception argument and maintains that competition serves consumers better over the long run than monopoly, because in the absence of competition the monopoly does not have any economic incentive to serve users interests.
  - This is especially true for Google's which does not work for users, but advertisers.
- **How is the consumer harmed from more Google innovation?**
  - The crux here is not whether any one else will be able to freely innovate or whether there will be Google "mono-vation," which is heavily skewed toward "innovation" that subscribes to Google's assumptions of: "*innovation without permission*," which assumes hostility to the property rights of publishers, privacy rights of users, and proprietary rights of competitors. Moreover, the business model must be advertising based not subscription or micropayment; and speed and efficiency trump privacy and security in design.
- **How is the consumer harmed from free Google products & services?**
  - The crux here is not whether consumers benefit from the free product or service being offered, but whether or not the system will remain competitive so that other products and services critical to a competitive ecosystem, like accountability measurement, remain competitive and hence independent.
  - Undercutting paid-for products or services with ones that are free (based on advertising or cross-subsidization) **can harm consumer by defunding consumer value and protection: i.e. responsive customer service, and privacy/security protections**.
  - Free, one-sided analytics products and services that are owned by Google and not independent mean that Google can rig the competitive game by being a player that owns the referee and scorekeeper, so that future products and services need not operate in the interests of users.
- **How is the consumer harmed by free Google information?**
  - While the consumer benefits from the availability of free information, the consumer does not benefit from a monopoly system that reduces the incentive and opportunity to reap a significant reward for the creation of valuable content and that reduces the quality and diversity of information being produced going forward.

Recommendation

DOJ Should File a Sherman Section 2 Monopolization Case
EU Should File Section 102 Statements of Objections

- Google is the dominant *platform* for Internet media and is monopolizing the consumer Internet media *ecosystem* and predatorily deflating prices sector-wide– so the antitrust problem is broad & systemic, not narrow & specific.
  - To try and address the Google antitrust problem narrowly and reactively via narrow issues like the Google Book Settlement or the ITA Software transaction would be a futile antitrust game of "whack-a-mole."
- Moreover, Google's antitrust defenses are macro and not specific: "*competition is but a click away*;" Google is innovative and antitrust enforcement would impede innovation; and free products and services can't harm consumers.
  - **A Sherman Section 1 & 2 monopolization case and/or an EU Section 102 Statement of Objections are necessary** to address and encompass the breadth and depth of the long term threat to Internet media and distribution competition, quality, diverse choice of information/distribution, and diverse and competition-driven innovation.

APPENDIX A: SCOTT CLELAND BIO
APPENDIX B: GOOGLEOPOLY RESEARCH

Appendix A: Bio: Scott Cleland, President, Precursor® LLC

- **Bio:** Scott Cleland is a precursor, a prescient analyst with a long track record of industry firsts. Cleland is President of Precursor® LLC, which consults for Fortune 500 clients; authors the "widely-read" PrecursorBlog.com; publishes GoogleMonitor.com & Googleopoly.net; and serves as Chairman of NetCompetition.org®, a pro-competition e-forum supported by broadband interests. Eight different Congressional subcommittees have sought Cleland's expert testimony on a wide range of complex emerging issues related to competition; and *Institutional Investor* twice ranked him as the top independent telecom analyst in the U.S. Cleland has been profiled in *Fortune, National Journal, Barrons, WSJ's Smart Money, Investors Business Daily,* and *Washington Business Journal.*
  - Cleland's Full Biography can be found at: http://www.precursor.com/bio_long.htm
- **Scott Cleland is Publisher of:**
  - www.PrecursorBlog.com
  - www.GoogleMonitor.com
  - www.Googleopoly.net
- **Scott Cleland's Congressional Testimony on Google:**
  - Before the Senate Judiciary Subcommittee on Antitrust on the Google-DoubleClick Merger, September 27, 2007. http://googleopoly.net/cleland_testimony_092707.pdf
  - Before the House Energy and Commerce Subcommittee on the Internet on Google Privacy issues, July 17, 2008. http://www.netcompetition.org/Written_Testimony_House_Privacy_071707.pdf
- **Presenting at the Federalist Society: Why Google is a Monopoly**
  - http://www.precursorblog.com/content/why-google-a-monopoly-presenting-case-federalist-society

Appendix B: www.Googleopoly.net Research

Googleopoly Research Series:

- Googleopoly I: The Google-DoubleClick Anti-competitive Case
  - http://googleopoly.net/merger.html
- Googleopoly II: Google's Predatory Playbook to Thwart Competition
  - http://googleopoly.net/googleopoly_2.pdf
- Googleopoly III: Dependency: The Crux of the Google-Yahoo Ad Agreement Problem
  - http://googleopoly.net/googleopoly_3_dependency.pdf
- Googleopoly IV: How Google Extends its Search Monopoly to Monopsony Control over Digital Information
  - http://googleopoly.net/Googleopoly_IV_The_Googleopsony_Case.pdf
  - Chart: Google's Digital Information Distribution Bottleneck
    - http://googleopoly.net/Googles_Digital_Information_Distribution_Bottleneck_Chart.pdf
- Googleopoly V: Why the FTC Should Block Google-AdMob
  - http://www.googleopoly.net/Why_The_FTC_Should_Block_Google.pdf
  - Chart: Google-AdMob Monopoly Bottleneck Chart http://googleopoly.net/merger_to_monopoly.pdf

Additional Googleopoly Related Research:

- Google: "We're the Biggest King Maker on This Earth"
  - http://precursorblog.com/content/google-were-biggest-kingmaker-earth-googleopoly-update
- What Private Information Google Collects
  - http://googlemonitor.com/wp-content/uploads/2010/05/Google%20Privacy%20Fact%20Sheet.pdf
- Why Privacy is an Antitrust Issue and Google is its Poster Child
  - http://precursorblog.com/content/why-privacy-is-antitrust-issue-why-google-its-poster-child
- Google's "Total Information Awareness Power" – A One-page Graphic on All the Information Google Has
  - http://www.precursorblog.com/content/googles-total-information-awareness-power-a-one-page-graphic-all-information-google-has
- Googleopolization Through Anti-competitive Search Discrimination Chart http://googleopoly.net/Google-opolization.pdf

Please visit www.GoogleMonitor.com for additional information.

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Mr. JOHNSON. Thank you for adding some passion into such a dry subject, if you will.

Professor Manne—Manne, I am sorry.

TESTIMONY OF GEOFFREY A. MANNE, EXECUTIVE DIRECTOR, INTERNATIONAL CENTER FOR LAW AND ECONOMICS, LEWIS AND CLARK LAW SCHOOL, PORTLAND, OR

Mr. MANNE. Thank you. And now for the dry academic viewpoint.

I want to thank you, Mr. Chairman and Ranking Member Coble and the rest of the Members of the Committee for——

It was. Is it? Yes.

My name is Geoffrey Manne. I am the founder and executive director Of the International Center for Law and Economics. I also teach at Lewis & Clark Law school in Portland, Oregon. I just want to clarify that the International Center for Law and Economics is not affiliated with the school, and while I do speak on behalf of the ICLE, I do not speak on behalf of my colleagues at Lewis & Clark Law School. I would say that is probably true unanimously of my colleagues at Lewis & Clark Law School.

I have written widely on the subject of competition policy and innovation and want to mention a forthcoming volume from the Cambridge University Press, for which I am a co-editor, on competition policy and intellectual property law under uncertainty regulating innovation. And I think it is the existence of uncertainty that animates my remarks today.

What I want to talk about is what we do with all of the information that we have, sort of a meta question, how do we make a decision about what to do in a world in which things, actions, business actions could be anticompetitive and could be pro-competitive.

It turns out that there is an enormous amount about the economic implications of business conduct that we still don't understand, and our antitrust laws nevertheless obligate us to soldier on, developing sound expectations about the anti-or pro-competitive implications of various forms of business conduct nonetheless. We would do well to recognize our ignorance.

In brief, the essential antitrust analysis that I would recommend tends to counsel against rather than for enforcement in many circumstances, and this is particularly true in nascent, evolving and technologically innovative markets where ignorance about market structure, competition, technology and consumer demand is absolutely legion.

As a result the appropriate approach to antitrust analysis is a cautious one that embraces the evidence-based approach to uncertainty, complexity and dynamic innovation contained within the well-established so-called error cost framework. The point is not that we know that any particular high-tech company's conduct is pro-competitive, but rather that the very uncertainty surrounding it counsels caution, not aggression.

The error cost framework is built on two premises—first, that false positives are more costly than false negatives, because self-correction mechanisms mitigate the latter, but not the former; and second, that errors of both types are inevitable because distinguishing pro-competitive conduct from anticompetitive conduct is an inherently difficult task, especially in the face of innovation.

Both product and business innovations involve novel practices, and it turns out that these practices generally result in monopoly

explanations from the economics profession followed by hostility from the courts, although sometimes the process is reversed.

In the words of Nobel economist Ronald Coase, if an economist finds something, a business practice of one sort or another that he does not understand, he looks for a monopoly explanation. As in this field we are rather ignorant, the number of un-understandable practices tends to be rather large, and the reliance on monopoly explanations frequent.

The fundamental truth of antitrust analysis, as I said, is that the very same conduct—aggressive competition—that could be anti-competitive could also be pro-competitive. There is no easy way to assess out the differences on the basis of simple or even complex legislative or judicial language, and there are lots of incentives tending economist, competitors, regulators and others to Dean too far the wrong way.

The cost of hasty intervention is the loss of the consumer benefits of aggressive competition both directly and, perhaps more importantly, by the deterrence of future actions that may likewise attract costly interventions and penalties.

Caution is the watchword in these markets, and while some have suggested that our antitrust enforcers are asleep at the switch, I would suggest that, if anything, they may be too aggressive. From the investigations of Google ITA, AdMob and DoubleClick mergers to Intel, Microsoft, Qualcomm, Rambus and many others, activity here is hardly moribund.

Mr. Coble mentioned the issue of privacy in this realm, and I think that the fact the agencies are thinking about and looking at and actively considering actions, antitrust actions, on the basis of privacy implications of mergers in particular is a particularly problematic development, because it turns out there is quite literally no antitrust relevant theory of privacy that would animate the determination that there is a privacy problem in these mergers.

Like Rich here, these folks are well-intentioned, smart and as knowledgeable as anyone on the topics in which they truck. Unfortunately, it is the inherent limitations of the tools at their disposal and the unfortunate fact that prime is not simultaneous that impede them. It is on this assessment most enthusiastically that I would disagree with our antitrust enforcers and some courts for that matter. We are stuck with the limitations of our knowledge.

[The prepared statement of Mr. Manne follows:]

PREPARED STATEMENT OF GEOFFREY A. MANNE

TESTIMONY OF
GEOFFREY A. MANNE
EXECUTIVE DIRECTOR, INTERNATIONAL CENTER FOR LAW & ECONOMICS
LECTURER IN LAW, LEWIS & CLARK LAW SCHOOL
CONTRIBUTOR, HOOVER INSTITUTION PROJECT ON COMMERCIALIZING INNOVATION

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Before the

Subcommittee on Courts and Competition Policy
Committee on the Judiciary
United States House of Representatives

Hearing on
Competition in the Evolving Digital Marketplace

September 16, 2010
10:00 am
Room 2141 Rayburn House Office Building

I would like to thank Chairman Conyers, Ranking Member Smith, Chairman Johnson and Ranking Member Coble for inviting me to testify. Members of the Committee: My name is Geoffrey A. Manne. I am the founder and executive director of the International Center for Law and Economics (or "ICLE")—a global think tank devoted to bringing academic rigor to policy debates in the areas of antitrust, intellectual property, and financial regulation. I also teach Law and Economics at Lewis and Clark Law School in Portland, Oregon, where I am a Lecturer. I've written widely on competition policy and innovation. I'm the co-editor of a forthcoming volume on the topic from Cambridge University Press, *Competition Policy and Intellectual Property Law Under Uncertainty: Regulating Innovation* (with Joshua D. Wright) and the co-author (also with Joshua Wright) of two articles on the limits of antitrust in the digital economy: *Innovation and the Limits of Antitrust* (published in the Journal of Competition Law and Economics) and *The Case Against the Case Against Google* (forthcoming in the Harvard Journal of Law and Public Policy). In the interest of transparency, Google, among several other companies, has in the past supported ICLE's work.

Economists have been studying antitrust since the very beginnings of the study of economics itself—Adam Smith even has a discussion on the subject in *The Wealth of Nations*. But economics—and by extension legal scholarship—has only come into its own and developed rigorous, sound and evidence-based analysis of the topic since about the 1970s. There is an enormous amount about the economic implications of business conduct that we still don't understand (and some that we do seem to have a handle on), but our antitrust laws nevertheless obligate us to soldier on, developing sound expectations about the anti- or pro-competitive implications of various forms of business conduct nonetheless.

And while antitrust is not unique in operating under conditions of fundamental uncertainty, antitrust may be unique in foisting the burden of this uncertainty onto essentially economic conclusions: The touchstone of antitrust enforcement is the speculative economic implications of scrutinized conduct rather than its adherence to specific rules or legal tenets. As a result, we are forced to assess possible antitrust interventions within a sometimes-unsatisfying "decision-theoretic" framework—weighing the likelihood and the costs of erroneous enforcement against the likelihood and costs of erroneous non-enforcement.

For reasons I will discuss briefly below, this essential analysis tends to counsel against, rather than for, enforcement in many circumstances, and this is particularly true in nascent, evolving and technologically-innovative markets where ignorance about market structure, competition, technology and consumer demand is legion. Following my general remarks, I will spend some time

discussing the implications of this reality for assessing the competitive implications of the pending Google/ITA merger. At the end of my prepared remarks I have a brief discussion of the role of privacy concerns in antitrust analysis.

The antitrust landscape has changed dramatically in the last decade. Within the last two years alone, the United States Department of Justice has held hearings on the appropriate scope of Section 2, issued a comprehensive Report, and then repudiated it; and the European Commission has risen as an aggressive leader in single firm conduct enforcement by bringing abuse of dominance actions and assessing heavy fines against firms including Qualcomm, Intel, and Microsoft. In the United States, two of the most significant characteristics of the "new" antitrust approach have been a more intense focus on innovative companies in high-tech industries and a weakening of longstanding concerns that erroneous antitrust interventions will hinder economic growth. But this focus is dangerous, and these concerns should not be dismissed so lightly.

Today's high-tech bête noir is Google. Close scrutiny of the complex economics of Google's technology, market and business practices reveals a range of real but subtle, pro-competitive explanations for features that have been held out instead as anticompetitive. Application of the relevant case law then reveals a set of concerns where economic complexity and ambiguity, coupled with an insufficiently-deferential approach to innovative technology and pricing practiced in the most relevant precedent (the D.C. Circuit's decision in *Microsoft*), portend a potentially erroneous—and costly—result. A better analysis, by contrast, would embrace the cautious and evidence-based approach to uncertainty, complexity and dynamic innovation contained within the well-established "error cost framework." And while there is an abundance of error-cost concern in the relevant Supreme Court precedent, there is a real risk that the current, aggressive approach to antitrust error, coupled with the uncertain economics of Google's innovative conduct, will nevertheless yield costly interventions. The point is not that we *know* that Google—or any other high-tech company's—conduct is *pro-competitive*, but rather that the very uncertainty surrounding it counsels caution, not aggression.

The error-cost framework in antitrust originates with Judge Frank Easterbrook's analysis in his seminal paper, *The Limits of Antitrust*, itself built on twin premises: first, that false positives are more costly than false negatives because self-correction mechanisms mitigate the latter but not the former, and second, that errors of both types are inevitable because distinguishing pro-competitive conduct from anti-competitive conduct is an inherently difficult task, especially in a single-firm context.

While economists have applied this framework fruitfully to several business practices that have attracted antitrust scrutiny, its application to antitrust intervention in markets where innovation is a critical part of the competitive landscape is less-well-developed. While much has been said about the relationship between innovation and antitrust, often in the way of broad pronouncements that innovation either renders antitrust essential to economic growth or entirely unnecessary, the error-cost framework allows for greater precision in policy prescriptions and a more nuanced approach. Some of the implications are well understood in the current body of literature and others have been frequently ignored or remain entirely unrecognized.

In brief, given the link between innovation and economic growth, the stakes of "getting it right" are high. Caution and humility are warranted in light of both the historical hostility towards innovative business practices by competition policy as well as the large gaps of empirically-validated theory in the economic literature on competition and innovation. The traditional problem of identifying and distinguishing pro-competitive from anticompetitive conduct faced by enforcers and courts in all antitrust cases is a difficult one. But those difficulties are exacerbated in innovative industries.

Both product and business innovations involve novel practices, and such practices generally result in monopoly explanations from the economics profession followed by hostility from the courts (though sometimes in reverse order) and then a subsequent, more nuanced economic understanding of the business practice usually recognizing its pro-competitive virtues. This sequence and outcome is exactly what one might expect in a world where economists' career incentives skew in favor of generating models that demonstrate inefficiencies and debunk the economics status quo, while defendants engaged in business practices that have evolved over time through trial and error have a difficult time articulating a justification that fits one of a court's checklist of acceptable answers. In the words of Nobel economist Ronald Coase,

> [i]f an economist finds something—a business practice of one sort or another—that he does not understand, he looks for a monopoly explanation. And as in this field we are rather ignorant, the number of un-understandable practices tends to be rather large, and the reliance on monopoly explanations frequent."[1]

From an error-cost perspective, the critical point is that antitrust scrutiny of innovation and innovative business practices is likely to be biased in the direction of assigning higher likelihood that a given practice is anticompetitive

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[1] Ronald Coase, *Industrial Organization: A Proposal for Research*, in 3 POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION 59, 67 (Victor Fuchs ed. 1972).

than the subsequent literature and evidence will ultimately suggest is reasonable or accurate.

Thus while many business practices are criticized by competitors and others as anticompetitive—and sometimes they are, of course—I believe it would be prudent to consider and give greater weight to the pro-competitive explanations as well as the anti-competitive ones. The fundamental truth of antitrust analysis is that the very same conduct (aggressive competition) that could be anticompetitive could also be pro-competitive; there is no easy way to suss out the difference on the basis of simple (or even complex) legislative or judicial language. The cost of hasty intervention is the loss to consumers of the benefits of that aggressive competition, both directly and, perhaps more importantly, by deterring future actions that may likewise attract costly interventions and penalties. Intervention tends to be final, stopping (and deterring) potentially-valuable conduct in its tracks. On the other hand, non-intervention under uncertainty permits the possible pro-competitive bounty to materialize and allows both the competitive marketplace as well as future enforcers to mitigate anticompetitive outcomes that may arise.

Google's acquisition of ITA

Several concerns have been raised about Google's proposed acquisition of ITA. In the interests of time I will not describe the details of the acquisition here but will instead note a few thoughts about the implications of the deal.

The primary concern that has been expressed is that the acquisition would "leverage" Google's dominance into another market—the online travel search market—and permit Google to foreclose access to ITA's important analysis of flights and fares by its competitors.

I would hasten to point out that ITA does not provide nor own the underlying data (this comes from the airlines themselves) but only its proprietary analysis and processing of the raw data. Thus, it would be impossible for Google to foreclose access to the underlying data (even if it wanted to) and its merger could only affect access to ITA's proprietary processing of that data—processing that other companies can and do undertake.

I believe that Google has made it clear—and its own comparative advantage and its entire history supports—that it has no interest in selling airline tickets or making airline reservations. Instead, its interest is in providing access to airline flight and pricing data through its various properties, and permitting online travel agencies to bid on the sale of tickets to Google users looking to buy (much as Microsoft already does with its Bing search engine). If ITA's data analysis and processing service competes with other products offered by Google,

then it represents a small fraction of a much larger market and this transaction is competitively insignificant. If it is a different market, on the other hand, then critics need to make clear how Google's dominance in the "PC-based search advertising market" actually affects the prospects for competition in this one. Merely using the words "leverage" and "dominance" to describe the transaction is hardly sufficient. To the extent that this is just a breathless way of saying that Google wants to build its business in a growing market that offers economies of scope with its existing business, it is identifying a feature and not a bug. If instead it is meant to refer to some sort of anticompetitive tying or market foreclosure the claim is speculative and unsupported, as best I can tell.

One big problem here is that the claims of anticompetitive foreclosure do not turn on Google's owning ITA—rather, if it would be profitable for Google to incur the costs of both buying ITA as well as engaging in foreclosure in order to dominate the online travel search market, it would likely have been profitable for ITA to do it itself (or else negotiate away Google's expected gain in the sale price). Otherwise we're left with an argument that Google can do it more efficiently (in which case the claim cuts *against* challenging the merger), or else a claim that Google could be a more effective monopolist than ITA in online travel search—but this is just hand-waving and we still haven't heard why it would be true.

Critics of the deal wave off claims that the DOJ should be reluctant to regulate such a dynamic and innovative industry. But waiving off this concern is, while common these days, inappropriate and dangerous. It is precisely in this sort of dynamic, innovative and not-yet-understood market where the risk and cost of deterring beneficial business models and strategies (to say nothing of technological progress) are highest. To claim that the industry's newness and dynamism are not a reason to forebear from intervention is ill-considered, unsupportable, and backward. Rather, as the technology, usage and market structure, cost, and software for online search generally and travel search in particular change, so do the strategy and profitability of the various business models that build up around them. Whatever Google tries to do at this early stage of market evolution, it will face challenges from competing business models not yet conceived of, changes in underlying software, and demographic/usage/consumer preference changes that will make any market power it might enjoy both fleeting and important in catalyzing the very competitive evolution that will undermine it. Far from being irrelevant to the propriety of a merger challenge, the newness and dynamism of the market is essential to this determination.

Perhaps nowhere is this more evident than in the neck-breaking evolution of the mobile phone advertising market. As is well known, the FTC threatened to challenge Google's acquisition of mobile advertising provider AdMob until

Apple announced its own mobile advertising platform in direct competition with AdMob. No doubt this was viewed by Google as an enormous competitive challenge to its plans in this area—one that was unanticipated both by Google and the regulators at the FTC scrutinizing the merger. As if to underscore the point, shortly after it announced its foray into the mobile advertising space, Apple also implemented rules that precluded Google's AdMob from operating on the iPhone. These rules were recently rescinded, but the fact of vigorous, unanticipated competition between these two technology behemoths remains and has unfolded at a furious pace—like Schumpeterian competition on steroids. Had Apple's announcement come, say, one month later than it did, the FTC may well have blundered into itself foreclosing this competition and paving the way for a far less-consumer-friendly mobile advertising market.

Google's acquisition of ITA is a straightforward vertical merger, where one company has decided to purchase an input into its business outright rather than simply contract with it. The economic literature is overflowing with explanations for this sort of conduct (and at least two Nobel Prizes—those to Ronald Coase and Oliver Williamson—have been awarded for research in the field). Few areas of economic research are as well-supported empirically and as unanimous in their conclusions—in this case, that there are sound and well-supported institutional justifications for vertical integration rooted in the avoidance of the costs of contracting *between* companies rather than within the same entity.

In this case a number of those possible explanations are present. Most notably Google gets to exercise direct control over ITA's talented engineers if it owns ITA—influence that it may otherwise be able to wield only tangentially, if at all, through contracts with ITA. If Google thinks either that it can better manage ITA's human (and possibly also intellectual) capital better than ITA's current management, and/or if it has the foresight, financial wherewithal, intellectual and human capital, or innovative spark to better make use of ITA's resources, then integration is both sensible for the companies and valuable for consumers. I have no doubt that Google has novel ideas about how to process airline data that diverge from ITA's current processes and intends to develop new ways to work with the data within its search environment. Absent integration (or else extremely costly and maybe prohibitively-costly contracts), Google is stuck with the forms of data processing that ITA develops on its own and Google, its shareholders, its many users and its customers (to say nothing of ITA and its investors) would be harmed—as would technological progress and economic growth.

Privacy

A final, quick word about privacy.

No one has put forth an antitrust-relevant theory to support claims that, in cases like the Google/ITA deal and, more relevantly, cases like the Google/AdMob deal, the agencies should pay closer attention to the privacy interests implicated by scrutinized conduct. The data in question in these cases currently exists. The claim is that the same amount of data in the hands of one firm instead of two presents a problem, and that any such combination must be accompanied by "safeguards to protect consumers' privacy." There is no indication why privacy is more in danger when the two databases are combined. These claims contain no clear definition of "privacy," for that matter. Is the fear that my data is more likely to be unintentionally released into the public domain? I don't see why this is any more likely if Google controls two databases than if they are controlled separately by two separate firms. Is the fear that my data is more likely to be used in Google's decision-making when combined than when separate? First, I see no reason why this would be so, and second, this offers huge potential benefits, if true. How does it help me to "safeguard" my privacy by making the products I use otherwise less valuable to me? Privacy's optimum is certainly not the maximum, and the optimum differs for every person. How is this to be incorporated into an antitrust analysis?

Related to this, the implication of this kind of approach is that any efficiency that might be realized from a single firm having access to a larger or more robust database of information is not cognizable, but is, in fact, a bug and not a feature. This would threaten to condemn some efficiency-enhancing conduct by disregarding a potentially-important source of efficiency by labeling it a "privacy degradation" instead of an efficiency. Finally, where concentration of data entails the pooling of many people's data, why is this of any concern to me or any other individual? Is my privacy any more at risk if Google has access to another 10 million people's data? If anything the opposite would seem to be true.

Until proponents of incorporating privacy analysis into antitrust review–especially merger review–put forward anything resembling an antitrust-relevant theory of how mergers (or other conduct) could harm privacy instead of just parroting what amounts to an unsupported conduct-structure-performance assertion, the FTC should *not* "pay close attention to the privacy interests implicated by these transactions."

The basic argument in favor of incorporating privacy into antitrust analysis under *appropriate* circumstances is not too controversial:

- Antitrust exists to protect against the exercise of market power that reduces consumer welfare
- Reductions in non-price competition can reduce consumer welfare
- Privacy can be a form of non-price competition in some markets

- Ergo, antitrust analysis ought to be concerned with privacy concerns

The first three bullet points are easy to understand. I agree that to the extent that privacy amenities can be an important dimension of non-price competition, antitrust analysis must be flexible enough to incorporate those concerns.

What seems to me to be missing in this discussion is a theory of how a particular merger will change the incentives of the firm to provide privacy amenities as a form of non-price competition. Modern merger analysis focuses on the question of how the pricing incentives of the post-merger firm change after the merger. There is a substantial economics literature that has increased our understanding of how mergers might impact pricing incentives. It is generally no longer sufficient in merger cases to point to an increase in concentration by itself as support for the assertion that consumer welfare will be harmed (this is the old, discredited conduct-structure-performance framework I mention above). An agency challenging a merger must present a compelling competitive effects story. Here, the competitive effects are going to be privacy-related. It seems to me that to move forward from "privacy should count in antitrust analysis because it is a form of non-price competition" to "this merger will reduce privacy and harm consumers" one must have a theory that explains: (1) why the specific merger *changes the firms incentives* to provide (or degrade) privacy amenities above and beyond a showing that the merger increases concentration, and (2) if the merger creates market power, why the firm will exercise that power in the form of reducing privacy rather than increasing the price. To my knowledge we do not yet have a theory that accomplishes this aim.

Mr. JOHNSON. Thank you, sir. I think we could probably hold a 3- or 4-hour discussion with just you and Mr. Cleland. [Laughter.]

And perhaps we shall do that one day.

Now, Dr. Cooper?

TESTIMONY OF MARK N. COOPER, Ph.D., CONSUMER FEDERATION OF AMERICA, WASHINGTON, DC

Mr. COOPER. Thank you, Mr. Chairman.

The Consumer Federation of America has long believed that digital industries would be an extremely consumer friendly and citizen friendly place, if allowed to develop to their full potential. Over the past two decades, it has become clear, however, that ensuring digital markets remain vigorously competitive and open is difficult, because these sectors have a tendency to be dominated by a very small number of platforms.

The small numbers problem arises from supply-side demand and demand-side economies of scale that push these platforms toward something known as winner-take-most outcome. Once these markets tip, they tend not to flip.

But experience shows that winners are not satisfied to allow the underlying economic fundamentals that created their advantage be the sole source of their continuing dominance. They immediately engage in conscious anticompetitive practice to reinforce and extend their market power.

Their ability to do so in digital markets is greater than in traditional industries as a result of the strong technological complementarities between the platforms and the applications and services that ride on them. Because the dominant platform owner controls the functionalities on which complementary applications and services rely, they can easily foreclose or degrade the quality of the product that competes with the applications and services they provide.

Dominant firms create barriers to entry through exclusive deals, price discrimination and rebating, manipulation of standards, refusal to deal with, withdrawal of support from, retaliation for dealing with complements and competitors.

Demand for competing products can be reduced through lock-in contracts for core products or complements, including long terms and minimum commitment, pre-announcement of features to freeze consumers and artificial bundling of products. Bundling can undermine competition, inducing exit, creating barriers to entry, relaxing price competition, distorting investment, retarding innovation, and expanding market power into new markets.

I give three appendices that document these practices in three important digital industries.

These anticompetitive practices preserve the dominant firm's market power by undermining potential entrants and increasing the applications barrier to entry. They slow and distort innovation by driving it toward applications, goods and services that fit into the business model of the incumbent platform. They provide for the platform owner with the ability and tools to extract surplus from consumers with price discrimination and bundling.

One of the most powerful effects and benefits of the explosion of digital technologies is digital disintermediation. Digital tech-

nologies reduce, even eliminate the need for intermediaries, lowering transaction costs and allowing producers to sell directly to consumers or consumers to sell to each other, turning them into producers.

The reduction in costs is a result of economic efficiency, and it triggers a battle royal over the rents that have existed in physical markets. Incumbent middlemen try to defend their brand, while dominant platform owners seek to capture the savings as excess profit. But the reduction in costs in a competitive market would and should be passed to the consumers.

A number of recommendations flow from this analysis. Because the numbers are so small in these platforms, we must make sure that we get the maximum number of competitors possible, the maximum number that the minimum efficient scale will support.

Antitrust and competition authorities must act swiftly against artificial barriers to entry. Make no mistake about it. These markets tend toward compatibility and interoperability, and it is only by building artificial barriers to interoperability that these markets can be segmented.

We should value the potential of intermodal and potential competition. But we cannot assume that competition across modes will be effective. It has to be demonstrated. We certainly should not allow intermodal competitors to be gobbled up by intermodal incumbents. We should scrutinize the abuse of vertical leverage and focus on the key chokepoint in these industries where the flow of innovation, applications, goods and services can be controlled.

Claims of technological innovation should be scrutinized. We should maximize consumer sovereignty and welfare again. We should act swiftly against artificial switching costs and support policies to lower switching costs. We should recognize the anti-competitive and anti-consumer arms of bundling.

We should resist calls from disintermediated incumbents to save their antiquated oligopoly business model. We should promote transparency, but recognize that the extremely complex nature of digital technologies creates a severe problem of information asymmetry.

Digital markets will be a powerful and consumer friendly space if we adhere to the principles of vigorous competition and openness that has been the cornerstone for antitrust and competition policy in this Nation for well over a century. Thank you.

[The prepared statement of Mr. Cooper follows:]

PREPARED STATEMENT OF MARK N. COOPER

Consumer Federation of America

Testimony of Dr. Mark Cooper

Director of Research

On

Competition in the Evolving Digital Marketplace

Subcommittee on Courts and Competition Policy
Committee on the Judiciary
U.S. House of Representatives

September 16, 2010

Mr. Chairman and Members of the Committee,

My name is Dr. Mark Cooper. I am Director of Research of the Consumer Federation of America (CFA). I appreciate the opportunity to appear before you today to share our views on "Competition in the Evolving Digital Marketplace." CFA has long recognized the importance of digital industries to consumers and the economy. We began analyzing the digital industries in the late 1980s, before most analysts were paying much attention, and we concluded that, allowed to develop to their full potential, they would be an extremely consumer-friendly and citizen-friendly place.[1] Informed by that analysis, we have fought hard to preserve the competitiveness and openness of this space.[2]

Over the past two decades it has become clear that the challenge of ensuring that high technology markets, particularly digital technology-based sectors, remain vigorously competitive is one of the most important and difficult tasks facing antitrust and competition authorities;

- important because these sectors are vital to the future economic wellbeing of the U.S.,
- difficult because these sectors have a tendency to be dominated by a very small number of platforms.

I mention both antitrust and competition authorities because U.S. policy has long recognized the need for both. It is only a slight simplification to say that antitrust policy keeps markets competitive and competition policy keeps network open. The Interstate commerce Act (ICA) was passed in 1887; the Sherman Act in 1890; and the Mann Elkins Act, which pulled telecommunications and telegraphy industries under the ICA, was passed in 1910. Thus, for a century the two primary transportation and communications network industries of the industrial age were subject to both antirust and regulatory oversight over interconnection and carriage. The vital importance of the means of communications and transportation networks to the flow of commerce and the inherent tendency of these industries to exhibit market power justified the dual oversight. In fact, the importance of nondiscriminatory access to the means of

[1] Mark Cooper, *Expanding the Information Age for the 1990s: A Pragmatic Consumer Analysis* (Consumer Federation of America, January 11, 1990.

[2] Mark Cooper, "The Importance of Open Networks in Sustaining the Digital Revolution," in Thomas M. Lenard and Randolph J. May (Eds.) *Net Neutrality or Net Neutering* (New York, Springer, 2006);."Accessing the Knowledge Commons in the Digital Information Age," *Consumer Policy Review*, May/June 2006; "Open Communications Platforms: The Physical Infrastructure as the Bedrock of Innovation and Democratic Discourse in the Internet Age," *Journal of Telecommunications and High Technology Law*, 2:1, 2005; *Open Architecture as Communications Policy* (Stanford Law School, Center for Internet and Society: 2004); *Cable Mergers and Monopolies: Market Power In Digital Media and Communications Networks* (Washington, D.C.: Economic Policy Institute, 2002); "Antitrust As Consumer Protection In The New Economy: Lessons From The Microsoft Case, *Hastings Law Journal*, 52: 4, April 2001; Open Access To The Broadband Internet: Technical and Economic Discrimination In Closed, Proprietary Networks," *University of Colorado Law Review*, Vol. 69, Fall 2000; *Keeping the Information Superhighway Open for the 21st Century* (Consumer Federation of America, December 1999); *Creating Open Access to the Broadband Internet: Overcoming Technical and Economic Discrimination in Closed, Proprietary Network* (Consumer Federation of America, December 1999); *The Consumer Harm Caused By The Microsoft Monopoly: The Facts Speak For Themselves And They Call For A Stern Remedy* (Consumer Federation of America, November 1999); *Transforming the Information Superhighway into a Private Toll Road: MCI, Cable and Baby Bell Efforts to Control the High-Speed Internet* (Consumer Federation of America, October 1999); *Economic Evidence in the Antitrust Trial: The Microsoft Defense Stumbles Over the Facts* (Consumer Federation of America, March 18, 1999); *The Consumer Cost of the Microsoft Monopoly: $10 Billion of Overcharges and Counting* (Consumer Federation of America, Media Access Project and U.S. PIRG, January 1999); *The Consumer Case Against Microsoft* (Consumer Federation of America, October 1998); *The Meaning of the Word Infrastructure* (Consumer Federation of America, June 30, 1994) ; *Protecting the Public Interest in the Transition to Competition in Network Industries,*, June 14, 1994; *Developing the Information Age in the 1990s: A Pragmatic Consumer View* (Consumer Federation of America, June 8, 1992)

communications and commerce is deeply embedded in the DNA of capitalism, stretching back half a millennium in common law to the earliest days of capitalist enterprise. Mobility of people, goods and ideas was recognized as indispensible to economic activity and democracy.

The importance of these principles was demonstrated quickly for the telephone network. A mere decade after the first patent for the telephone was granted, it had already demonstrated it vital nature to the public interest. As an Indiana Court argued in 1886:

> The telephone has become as much a matter of public convenience and of public necessity as were the stagecoach and sailing vessel a hundred years ago, or the steamboat, the railroad, and the telegraph have become in later years. It has already become an important instrument of commerce. No other known device can supply the extraordinary facilities which it affords. It may therefore be regarded, when relatively considered, as an indispensable instrument of commerce. The relations which it has assumed towards the public make it a common carriers of news – a common carrier in the sense in which the telegraph is a common carrier – and impose upon it certain well-defined obligations of a public character. All the instruments and appliances used by the telephone company in the prosecution of its business are, consequently, in legal contemplation, devoted to a public use.[3]

With the convergence of communications and commerce on the digital broadband network and the continuous reminder that the threat of the abuse of market power has not diminished, the need to ensure that digital industries remain open and competitive is greater than ever.

The Market Power Problem in Digital Industries

The small numbers problem in the digital industries arises from supply-side and demand side economies of scale that push these platform industries toward "winner-take-most" outcomes Once these markets tip, they tend not to flip, with the dominant firm protected by economies of scale and switching costs that lock in the incumbent.

The "natural" economic processes that produce these outcomes do not mean that these markets are immune to the abuse of market power. On the contrary, the market power that inevitably results from dominant position of the platform is just as likely, perhaps even more likely, to be abused than market power in traditional industries. Experience shows winners are not satisfied to allow the underlying economic fundamentals that created their advantage to be the sole source of their dominance; they immediately engage in conscious, anticompetitive tactics to reinforce and extend their market power and their ability to do so is greater than in traditional industries. The exercise of market power undermines the benign economic processes that gave rise to their victories. The notion of a "benign monopolist" in the economy is just as bogus as the idea of a "benevolent despot" in the polity.

[3] Hokcett v. Indiana, 1886, cited in James B. Speta, "The Vertical Dimension of Cable Open Access," *Colorado Law Review*, 71 (2000), 975.

Thus, although the defenders of the "winner-take-most" point of view have a positive story to tell,[4] antitrust and competition authorities are continually confronted with the severe, negative consequences of the abuse of market power in "winner-take-most" markets. That is what I focus on in my testimony today.

The problem of market power that I describe in my testimony is not a hypothetical or merely theoretical concern; it is the reality of these markets. In the Appendix, I provide consumer-oriented analyses of recent examples of abuse of market power in high technology industries from three products that have huge impacts on consumer pocketbooks – telecommunications, PC operating systems, and video markets.

Interfaces as Choke Points

Market power centered in a dominant platform is a constant threat, not only to undermine competition between platforms, but also to distort competition for applications and services. The exercise of vertical leverage magnifies the problem of market power in these industries because of the strong technological complementarities between the platform and the applications and services that ride on the platforms. The ability to distort and undermine competition is particularly great in these industries because the dominant platform owner controls the functionalities on which complementary applications and service rely. They can easily foreclose or degrade the quality of products that compete with the applications and services the platform owner offers or wants to dominate and control.

- Telecommunications carriers can stifle competition by denying or degrading access to their networks.
- Microsoft can make using Navigator a "jolting experience;"
- Comcast can undermine the quality of video content distributed with peer-to-peer technologies and choke off the growth in Internet TV.

Incompatibilities, refusals to interconnect, or discrimination in access to the platform are essentially toll booths placed at key interfaces in the network, at which and behind which rents are collected. These toll booths, controlled by platform sponsors, diminish the shared value of the network in an effort to increase the returns of the sponsor at the expense of consumers, rivals and competition. At these choke points, platform owners control and distort the flow of innovation.

[4] The "winner-take-most" story goes as follows. High technology industries exhibit positive feedback loops that sustain change and productivity growth that are orders of magnitude larger than typified the industrial age. Advances in technology support more advances in technology. Standardized and pre-installed bundles of embedded knowledge (software) appear to have allowed the rapidly expanding capabilities of hardware to become accessible and useful to consumers with little expertise in computing. As more and more people use the product, the value to each increases in these network industries where people communicate with one another. Even where there is no direct communications, there can be network effects. There may be indirect benefits in virtual networks in which two consumers never actually come face-to-face or computer-to-computer. Support services, maintenance and repair, as well as libraries of applications become more readily available. Larger numbers of users seeking specialized applications create a larger library of applications that become available to other users, and secondary markets may be created. By increasing the number of units sold, the cost per unit falls dramatically. Cost savings apply not only to initial production costs, but also to service and maintenance costs. As the installed base of hardware and software deployed grows, learning and training in the dominant technology is more valuable since it can be applied to more users and uses.

These toll booths are artificial in two respects. First, as a matter of technology, these industries tend toward compatibility, interconnection and the free flow of commerce. Because these industries are knowledge-based and dynamic and there is immense value in access to the broadest network possible, they tend to solve problems of incompatibility and interconnection very quickly, unless platform sponsors prevent them from doing so. Without artificial barriers created by platform sponsors, platforms will be opened quickly by innovation. Second, these toll booths are an effort to shift cost recovery from the platform that lies behind the interface to the complementary applications, goods and services that ride atop it. Rather than charge a fair price for the basic functionality that the platform provides, they want to tax the value that the complements create.

Entrepreneurial Conduct

Conduct and its intent should remain a central concern of antitrust authorities in digital industries, notwithstanding the claim that "winner-take-most" competition justifies all tactics to eliminate the competition. The entrepreneur is not passive in the positive or negative aspects of the lock-in process. Diffusion agents or technology sponsors can use a wide range of actions to advance their technology. Precisely because certain characteristics of the process lend themselves to intervention by "sponsors," there is ample room for self-interested action that furthers the private sponsor's interest at the expense of the public interest. Thus, a critical step is to look at actual firm behavior.

One of the most important observations about the origins of a positive feedback process is its openness in the early stages of development. In order to stimulate the complementary assets and supporting services, and to attract the necessary critical mass of customers, the technology must be open to adoption and development by both consumers and suppliers. This openness captures the critical fact that demand and consumers are interrelated. If the activities of firms begin to promote closed technologies, this is a clear sign that motivation may have shifted. While it is clear in the literature that the installed base is important, it is not clear that an installed base must be so large that a single firm can dominate the market. As long as platforms are open, the installed base can be fragmented and still be large. A standard is not synonymous with a proprietary standard. Open platforms and compatible products provide a basis for network effects that is at least as dynamic as closed, proprietary platforms and much less prone to anti-competitive conduct. The market outcome that most vigorously challenges the proprietary "winner-take-most" model is a model that centers on open standards.

Firms seek to capture network effects and economies of scale and accomplish technological "lock-in." After capturing the first generation of customers and building a customer and applications base tied to a dominant platform, it becomes difficult, if not impossible, for later technologies to overcome this advantage. Having gained a controlling position, firms may seek to implement isolating mechanisms.

Sponsors have a variety of tools to create economic and entry barriers that are counterproductive. What was once the establishment of an installed base now becomes defense of market dominance that reduces competition and reinforces the "lock-out" of competing technologies. A dominant firm may create barriers to entry through exclusive deals, refusal to deal with complements or competitors, retaliation for dealing with competitors, withdrawal of

platform support for complements or competitors, price discrimination and rebating, manipulation of standards, lock-in contracts for core products or complements, including long terms and minimum commitments, "preannouncement" of features to freeze customers, and the exercise of property rights through restrictive licensing patents and copyrights.

Traditional marketing practices that tie products and predatory pricing remain a concern. Bundling, which may play a key role in creating the critical mass for positive externalities during the early period of adoption of a technology that provides the benefit of convenience for consumers throughout the product life cycle, can also play a role in exploiting customers. Over the past two decades, the anticompetitive potential of bundling has been explored and documented in detail. Firms can use bundling to defend or extend their market power, leading to further inefficiencies in the market. Under a wide range of assumptions, the dynamic ability of bundling to undermine competition has been demonstrated through a number of mechanisms including inducing exit, creating barriers to entry, relaxing price competition, distorting investment, retarding innovation, and extending market power into new markets.

The Harm of Abuse of Market Power

Once the economic inevitability and superiority of a "winner-take-most" model is questioned, we confront the motivation to monopolize. In spite of theoretical claims that monopolists have little motivation to engage in such activities, there is ample evidence that these anti-competitive behaviors may be attractive to a new economy monopolist for a variety of reasons. The projection of market power from the base platforms that are less competitive up through the market for complements harms the public in a number of ways. First, it tends to preserve market power by undermining potential entrants and increasing the applications barrier to entry. Second, the platform sponsor slows and distorts innovation by driving it toward applications, goods and services that fit into the business model of the incumbent platform operator. Third, vertical market power provides the platform owner with better tools to extract surplus from consumers with price discrimination and bundling.

Technological "lock-in" may short-circuit the innovation process. With the reinforcement of network effects, small advantages gained early in the process turn into substantial leads in the marketplace. The feedback process can lock in the wrong technology, esepecially when helped along by the anticompetitive tactics of the platform sponsor. Once an inferior technology is "locked-in," superior technologies may be "locked-out."

Market power in the core product can be preserved by conquering neighboring markets, raising cross-platform incompatibilities, raising rivals' costs, or preventing rivals from achieving economies of scale. Profits may be increased in the core product by enhanced abilities to price discriminate. By driving competitors out of neighboring markets, new monopolies may be created or the ability to preserve market power across generations may be enhanced by diminishing the pool of potential competitors.

The reward for successful anti-competitive activity is the ability to impose pricing patterns on the public that exploit market power and allow the dominant firm to control the direction and pace of innovation to protect its interest. The introduction of, and the reliance upon, price discrimination after the initial round of positive growth is a crucial factor. Price

discrimination allows firms to manage the cannibalization process. That is, introducing later versions of a product does not eliminate the ability to extract consumer surplus, as long as price discrimination occurs. Given the threat of lock-in and the advantages of being a dominant firm, the second generation of discrimination may rely on much subtler forms of discrimination. This second generation of discrimination is difficult to detect and root out.

Advertising and distribution will shift in nature from an open and expansive focus to a proprietary emphasis, while control over the product cycle can impose immense costs through forced upgrades. Indirect costs through greater and accelerated demands on hardware may actually be several times larger than the direct costs of hardware and software. In high tech industries, compulsory and coercive upgrading policies are a concern, as they exploit switching costs to extract consumer surplus.

The Consumer Benefit of Digital Disintermediation[5]

One of the most powerful effects and benefits of the explosion of digital technologies is "digital disintermediation." Digital technologies reduce, even eliminate, the need for intermediaries. Transaction costs are reduced by the elimination of the need for brick and mortar and the ability of producers to deal directly with consumers. The most revolutionary effect is to enable consumers to deal with consumers and become producers.[6] Digital disintermediation lowers the cost of products that can be fully digitized by 50% to 75%. Even where products cannot be digitized, the transaction cost savings are substantial and the efficiency gains of matching consumer needs to industry output are huge.

The reduction in transaction and production costs is the result of economic efficiency and it triggers a battle royal over costs and rents that are eliminated.[7] Incumbent middlemen will try to defend their rents. Platform owners that provide the tools for digital disintermediation will seek to capture the savings as excess profits, but in competitive markets the bulk of these costs savings should be passed through to consumers. The elimination of the "middleman" should put the cost savings into consumers' pockets.

Policy Implications

Five broad areas of policy conclusions flow from this analysis of the pervasive problem of abuse of market power in digital industries, yielding clear advice for those responsible for competition and consumer protection.

- Vigorous enforcement of antitrust and competition policies that ensures nondiscriminatory access to critical networks remains central to economic progress and fairness.
    - ❖ Because the numbers are so small, public policy must make sure we get the maximum number of competitors possible.

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[5] Mark Cooper, "Structured Viral Communications the Political Economy and Social Organization of Digital Disintermediation," forthcoming in *Journal on Telecommunications and High Technology Law;*

[6] Mark Cooper, "From Wifi to Wikis and Open Source: The Political Economy of Collaborative Production in the Digital Information Age" *Journal on Telecommunications and High Technology Law*, 5:1, 2006; "The Economics of Collaborative Production in the Spectrum Commons," *IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks*, November 2005

[7] Mark Cooper, "Round #1 in the Digital Intellectual Property Wars: Economic Fundamentals, Not Piracy, Explain How Consumers and Artists Won in the Music Sector," *Telecommunications Policy Research Conference*, September 2008.

- ❖ Test the limits of minimum efficient scale and
- ❖ Act swiftly against artificial barriers to entry and support policies to lower real barriers to entry.

- Value potential and intermodal competition highly, but don't assume they are effective until that is demonstrated.
  - ❖ Don't let intermodal competitors be gobbled up by intramodal incumbents.
  - ❖ Make sure intermodal competition is working before it is allowed to justify a reduction in the number intramodal competitors.

- Vertical leverage is a critically important concern for antitrust and competition authorities.
  - ❖ Scrutiny of abuse of vertical leverage should focus on the vital interfaces that control the flow of applications, goods and services in digital networks.
  - ❖ Claims of technological integration should be scrutinized carefully.

- Maximize consumer sovereignty and welfare gains.
  - ❖ Act swiftly against artificial switching costs.
  - ❖ Support policies to lower switching costs.
  - ❖ Recognize the anticompetitive and anti-consumer harms of bundling.
  - ❖ Resist the call of disintermediated incumbents to "save" their antiquated, oligopoly business models.
  - ❖ Promote transparency, but recognize that the extremely complex nature of digital technologies creates a severe problem of information asymmetry.

- Demand empirical evidence; do not rely on economic theories.
  - ❖ Define markets narrowly, recognizing that geography still matters in many of these industries which are still place-based. Reject unsupported theories and require real world proof of demand elasticity and cross-product substitutability.
  - ❖ Carefully scrutinize claims of efficiency when they are invoked to excuse potentially anticompetitive practices or mergers. They should not be a magic wand that blesses every merger or suspect business practice.
  - ❖ The presumption should be in favor of competition, allowing commerce and communications to flow while complaints are investigated.

Excerpt from

"Anticompetitive Problems of Closed Communications Facilities,"

in Mark Cooper (Ed.), *Open Architecture as Communications Policy*
(Center For Internet and Society, Stanford Law School, 2004)

BROADER IMPLICATIONS OF VERTICAL LEVERAGE IN COMMUNICATIONS NETWORKS

One of the most interesting ways to appreciate the harm that abuse of vertical leverage can do is to listen to what the big firms say when they find themselves on the wrong side of the lever. The analysis in this section relies on a variety of analyses and complaints from participants in the sector including AT&T as a long distance carrier, before it became a cable owner,[8] AOL as an ISP, before it became a cable owner,[9] analyses prepared by experts for local[10] and long distance telephone companies,[11] when they were not effectuating mergers of their own, Wall Street analyses of the business models of dominant, vertically integrated cable firms,[12] and observations offered by independent ISPs[13] and small cable operators.[14]

Current theoretical literature provides an ample basis for concerns that the physical layer of the communications platform will not perform efficiently or in a competitive manner without a check on market power. In this layer, barriers to entry are substantial, and go far beyond simple entrepreneurial skills that need to be rewarded.[15] At the structural level, new entry into these physical markets is difficult. AOL argued that the small number of communications facilities in the physical layer could create a transmission bottleneck that would lead

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[8] AT&T in Canada before it became the nation's largest cable company. See AT&T Canada Long Distance Services, *Comments of AT&T Canada Long Distance Services Company*, REGULATION OF CERTAIN TELECOMMUNICATIONS SERVICE OFFERED BY BROADCAST CARRIERS, the Canadian Radio-television and Telecommunications Commission, Telecom Public Notice CRTC 96-36: (1997). The AT&T policy on open access after it became a cable company was first offered in a Letter from David N. Baker, Vice President, Legal & Regulatory Affairs, Mindspring Enterprises, Inc., James W. Cicconi, General Council and Executive Vice President, AT&T Corp., and Kenneth S. Fellman, Esq., Chairman, FCC Local & State Government Advisory Committee, to William E. Kennard, Chairman of FCC (Dec. 6, 1999), *available at* http://www.fcc.gov/mb/attmindspringletter.txt. Virtually no commercial activity took place as a result of the letter, which was roundly criticized. Subsequently their activities were described in Peter S. Goodman, *AT&T Puts Open Access to a Test: Competitors Take Issue with Firm's Coveted First-Screen Presence*, WASH. POST, Nov. 23, 2000, at E1. AT&T in the U.S. in situations where it does not possess an advantage of owning wires, *see AT&T Corp., Reply Comments*, DEPLOYMENT OF WIRELINE SERVS. OFFERING ADVANCED TELECOMMS. CAPABILITY CC Docket No. 98-147 (1998); *see AT&T Corp., Reply comments*, OPPOSITION TO SOUTHWESTERN BELL TEL. CO. SECTION 271 APPLICATION FOR TEX., APPLICATION OF SBC COMMUNICATIONS INC., SOUTHWESTERN BELL TEL. CO., & SOUTHWESTERN BELL COMMUNICATIONS SERVS., INC. D/B/A SOUTHWESTERN BELL LONG DISTANCE FOR PROVISION OF IN-REGION INTERLATA SERVICES, IN TEXAS (2000), *at* http://gullfoss2.fcc.gov/ prod/ecfs/comsrch_v2.cgi;

[9] *America Online, Inc., Comments*, TRANSFER OF CONTROL OF FCC LICENSES OF MEDIAONE GROUP INC., TO AT&T CORP., CS Docket 99-251 (filed Aug. 23, 1999) (providing, at the federal level, AOL's most explicit analysis of the need for open access); America Online Inc., *Open Access Comments of America Online, Inc.*, before the DEPARTMENT OF TELECOMMUNICATIONS AND INFORMATION SERVICES, SAN FRANCISCO, October 27, 1999 (on file with author).

[10] Jerry A. Hausman, et al., *Residential Demand for Broadband Telecommunications and Consumer Access to Unaffiliated Internet Content Providers*, 18 YALE J. ON REG. (2001);

[11] John B. Hayes, Jith Jayaratne, and Michael L. Katz, *An Empirical Analysis of the Footprint Effects of Mergers Between Large ILECS*, citing "Declaration of Michael L. Katz and Steven C. Salop," submitted as an attachment to PETITION TO DENY OF SPRING COMMUNICATIONS COMPANY L.P, IN AMERITECH CORP. & SBC COMMUNICATIONS, INC., FOR CONSENT TO TRANSFER OF CONTROL, CC Dkt. No. 98-141 (filed Oct. 15, 1998) and PETITION TO DENY OF SPRING COMMUNICATIONS COMPANY L.P, IN GTE CORPORATION AND BELL ATLANTIC CORP. FOR CONSENT TO TRANSFER OF CONTROL, CC Docket. No. 98-184 (filed Nov. 23, 1998) (on file with author).

[12] Sanford C. Bernstein and McKinsey and Company, *Broadband!*, January, 2000 (on file with author); Merrill Lynch, AOL *Time Warner*, February 23, 2000; Paine Webber, *AOL Time Warner: Among the World's Most Valuable Brands*, March 1, 2000; Goldman Sachs, *America Online/Time Warner: Perfect Time-ing*, March 10, 2000 (on file with author).

[13] Earthlink, the first ISP to enter into negotiations with cable owners for access, has essentially given up and is vigorously seeking an open access obligation. *See* Notice of Ex Parte, Presentation Regarding the Applications of America Online, Inc. & Time Warner Inc. for Transfers of Control CS Docket No 00-30 (filed Oct. 18, 2000), *available at* http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi; NorthNet, Inc., An Open Access Business Model For Cable Systems: Promoting Competition & Preserving Internet Innovation On A Shared, Broadband Communications Network, Ex Parte, *Application of America Online Inc. & Time Warner, Inc. for Transfers of Control*, F.C.C., CS-Docket No. 0030, October 16, 2000

[14] *See American Cable Association, Comments*, In Re Implementation of the Cable Television Consumer Protection & Competition Act of 1992, Development of Competition in Video Programming Distribution: Section 628(c)(5) of the Communications Act: Sunset of Exclusive Contract Prohibition, CS Docket No. 01-290 (filed Dec. 3, 2001) *available at* http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi.

[15] *See* Legal Rights Satellite Org., *Communications Convergence of Broadcasting and Telecommunications Services* (arguing that there were barriers to entry into physical facilities), at http://www.legal-rights.org/Laws/convergence.html (last visited Jan. 17, 2003);

directly to the problem of vertical leverage or market power. "[A] vertically integrated broadband provider such as AT&T will have a strong incentive and opportunity to discriminate against unaffiliated broadband content providers."[16]

Problems caused by vertical integration are particularly troubling in communications markets because a communications provider with control over essential physical facilities can exploit its power in more than one market. Whether we call them essential facilities,[17] choke points[18] or anchor points,[19] the key leverage point of a communications network is controlling access to facilities.

The key, after all, is the ability to use "first mile" pipeline control to deny consumers direct access to, and thus a real choice among, the content and services offered by independent providers. Open access would provide a targeted and narrow fix to this problem. AT&T simply would not be allowed to control consumer's ability to choose service providers other than those AT&T itself has chosen for them. This would create an environment where independent, competitive service providers will have access to the broadband "first mile" controlled by AT&T – the pipe into consumers' homes – in order to provide a full, expanding range of voice, video, and data services requested by consumers. The ability to stifle Internet-based video competition and to restrict access to providers of broadband content, commerce and other new applications thus would be directly diminished.[20]

Experts for the local telephone companies, in opposing the merger of AT&T and MediaOne, made this point arguing that "the relevant geographic market is local because one can purchase broadband Internet access only from a local residence"[21] and that "a dominant market share is not a necessary condition for discrimination to be effective."[22] "[A] hypothetical monopoly supplier of broadband Internet access in a given geographic market could exercise market power without controlling the provision of broadband access in neighboring geographic markets."[23]

The essential nature of the physical communication platform was the paramount concern for AT&T long distance in determining interconnection policy for cable networks in Canada.[24] AT&T attacked the claim made by cable companies that their lack of market share indicates that they lack market power, arguing that small market share does not preclude the existence of market power because of the essential function of the access input to the production of service.[25] AT&T further argued that open access "obligations are not dependent on whether the provider is dominant. Rather they are necessary in order to prevent the abuse of market power that can be exercised over bottleneck functions of the broadband access service."[26]

AT&T maintained that the presence of a number of vertically integrated facilities owners does not solve the fundamental problem of access that nonintegrated content providers face, pointing out that since independent content providers will always outnumber integrated providers, competition could be undermined by vertical

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[16] Hausman, et al., *Residential Demand for* Broadband, at 129, 134.

[17] Langlois, *Technology Standards*, at 195.

[18] Mark Cooper, *Open Access to the Broadband Internet: Technical and Economic Discrimination in Closed, Proprietary Networks*, 71 U. COLO. L. REV. 1013 (2000).

[19] Bernstein, *Broadband!*, at 18, 21. [T]he current set of alternatives for reaching customers with broadband connections is inadequate. At least for the time being, cable is closed, meaning that much of the value is, in effect, ceded to the platform rather than captured by the content/applications providers…[B]roadband access platforms are the anchor points for much of the value at stake and vehicles for accessing new revenue streams. Furthermore, access is currently a bottleneck, and access winners have the potential to leverage their privilege positioned to ensure long-term value creation.

[20] That is exactly what AOL said about AT&T, when AOL was a nonaffiliated ISP. *See AOL, Transfer of Control*, at 13.

[21] Hausman, et al., *Residential Demand for Broadband*, at 135.

[22] *Id.* at 156.

[23] *Id.* at 135.

[24] AT&T Canada Long Distance Services, *Comments of AT&T Canada Long Distance Services Company*, REGULATION OF CERTAIN TELECOMMUNICATIONS SERVICES OFFERED BY BROADCAST CARRIERS, the Canadian Radio-television and Telecommunications Commission, Telecom Public Notice CRTC 96-36: (1997), at 12 .Each of these pronouncements made by regulators, policy makers and individual members of the industry reflects the strongly held view that access to the underlying facilities is not only necessary because of the bottleneck nature of the facilities in question, but also because it is critical for the development of competition in the provision of broadband services. AT&T Canada LDS shares this view and considers the control exercised by broadcast carriers over these essential inputs is an important factor contributing to the dominance of broadcast carriers in the market for access services.

[25] Id. at 8-9. By contrast, the telephone companies have just begun to establish a presence in the broadband access market and it will likely take a number of years before they have extensive networks in place. This lack of significant market share, however, is overshadowed by their monopoly position in the provision of local telephony services. [I]n any event, even if it could be argued that the telephone companies are not dominant in the market for broadband access services because they only occupy a small share of the market, there are a number of compelling reasons to suggest that measures of market share are not overly helpful when assessing the dominance of telecommunications carriers in the access market….Id. at 9 (emphasis in original).

[26] Id. at 24.

integration. In order to avoid this outcome, even multiple facilities owners must be required to provide non-discriminatory access.[27] This also applies in the ISP arena. AOL also believed that the presence of alternative facilities did not eliminate the need for open access.[28]

Two or three vertically integrated facilities in the broadband arena will not be enough to ensure vigorous competition. It is also important to note the consensus that cable is the dominant and preferred technology.[29] Cable's advantages are substantial, and DSL is not likely to be able to close the gap.[30]

Content discrimination has been the focal point of concern in relation to high-speed Internet services. Content discrimination involves an integrated provider "insulating its own affiliated content from competition by blocking or degrading the quality of outside content."[31] It benefits the vertically integrated entity "by enhancing the position of its affiliated content providers in the national market by denying unaffiliated content providers critical operating scale and insulating affiliated content providers from competition."[32]

AT&T identified four forms of anticompetitive leveraging—bundling, price squeeze, service quality discrimination, and first mover advantage.[33] It describes the classic vertical leveraging tools of price squeezes and quality discrimination as content discrimination. The experts for the local telephone companies identified a similar series of tactics that a vertically integrated broadband provider could use to disadvantage competing unaffiliated content providers.

First, it can give preference to an affiliated content provider by caching its content locally. Such preferential treatment ensures that affiliated content can be delivered at faster speeds than unaffiliated content.

Second, a vertically integrated broadband provider can limit the duration of streaming videos of broadcast quality to such an extent that they can never compete against cable programming . . .

Third, a vertically integrated firm such as AT&T or AOL-Time Warner could impose proprietary standards that would render unaffiliated content useless. . .Once the AT&T standard has been established, AT&T will be able to exercise market power over customers and those companies trying to reach its customers.[34]

Even after AT&T became the largest cable TV company in the U.S., its long distance division criticized local telephone companies for abusing their monopoly control over their telephone wires. AT&T complained about bottleneck facilities, vertical integration, anticompetitive bundling of services, and the distortion of competition when it opposed the entry of SBC into the long distance market in Texas.[35] These are the very same complaints AOL made about AT&T as a cable company at about the same time.[36] AOL expressed related concerns about the

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[27] *Id.* at 12. Because there are and will be many more providers of content in the broadband market than there are providers of carriage, there always will be more service providers than access providers in the market. Indeed, even if all of the access providers in the market integrated themselves vertically with as many service providers as practically feasible, there would still be a number of service providers remaining which will require access to the underlying broadband facilities of broadcast carriers.

[28] AOL, *Comments, Transfer of Control*, at 14.[A]n open access requirement] would allow ISPs to choose between the first-mile facilities of telephone and cable operators based on their relative price, performance, and features. This would spur the loop-to-loop, facilities-based competition contemplated by the Telecommunications Act of 1996, thereby offering consumers more widespread availability of Internet access; increasing affordability due to downward pressures on prices; and a menu of service options varying in price, speed, reliability, content and customer service. Another indication that the availability of alternative facilities does not eliminate the need for open access policy can be found in AOL's conclusion that the policy should apply to both business and residential customers. If ever there was a segment in which the presence of two facilities competing might alleviate the need for open access requirement, the business segment is it. AOL rejected the idea. *Id.* at 1-2.

[29] Mark Cooper, "Breaking the Rules," attached to Petition to Deny of Consumers Union, Consumer Federation of America and Media Access Project, Applications for Consent to Transfer of Control of Licenses, MediaOne Group, Inc. Transferor to AT&T Corp., Transferee, CS 99-251 (filed August 23, 1999) (on file with author).

[30] Bernstein, *Broadband!*, at 30, 33, 50-51.

[31] Hausman et al., *Residential Demand for Broadband*, at 158.

[32] *Id.* at 159.

[33] *AT&T Canada, Comments of AT&T Canada*, *supra* note 50.

[34] Hausman et al., *Residential Demand for Broadband*, *supra* note 52, at 160-62.

[35] *AT&T Corp., Reply comments*, Opposition to Southwestern Bell Tel. Co. Section 271 Application for Tex., Application of SBC Communications Inc., Southwestern Bell Tel. Co., & Southwestern Bell Communications Servs., Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region InterLATA Services. in Texas (2000), *at* http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi .

[36] AT&T Canada, Comments of AT&T Canada, at 15-16.

The dominant and vertically integrated position of cable broadcast carriers requires a number of safeguards to protect against anticompetitive behaviour. These carriers have considerable advantages in the market, particularly with respect to their ability to make use of their underlying network facilities for the delivery of new services. To grant these carriers unconditional forbearance would provide them with the opportunity to leverage their existing networks to the detriment of other potential service providers. In particular, unconditional forbearance

manipulation of technology and interfaces, complaining about "allowing a single entity to abuse its control over the development of technical solutions – particularly when it may have interests inconsistent with the successful implementation of open access… It is therefore vital to ensure that unaffiliated ISPs can gain access comparable to that the cable operators choose to afford to its cable-affiliated ISP.[37]

Long distance companies and competitive local exchange carriers have similar concerns about the merging local exchange carriers. Their experts argued in the proposed SBC-Ameritech and Bell Atlantic-GTE mergers that large size gave network owners an incentive to discriminate. "The economic logic of competitive spillovers implies that the increase in [incumbent local exchange carrier (ILEC)] footprints resulting from these proposed mergers would increase the ILECs' incentive to disadvantage rivals by degrading access services they need to compete, thereby harming competition and consumers."[38]

Wall Street analysts point out that the key to controlling the supply side is controlling essential functions through proprietary standards.[39] Independent ISPs point out that cable operators like AOL use control over functionalities to control the services available on the network.[40] Cable operators have continued to insist on quality of service restrictions by unaffiliated ISPs, which places the ISPs at a competitive disadvantage.[41] Cable operators must approve new functionalities whether or not they place any demands on the network.

Price squeeze and extraction of rents are apparent in the implementation of closed platforms. Thomas Hazlett and George Bittlingmayer cite Excite@Home executive Milo Medin describing the terms on which cable operators would allow carriage of broadband Internet to AOL (before it owned a wire) as follows:

> I was sitting next to [AOL CEO] Steve Case in Congress during the open access debates. He was saying that all AOL wanted was to be treated like Excite [@]Home. If he wants to be treated like us, I'm sure he could cut a deal with [the cable networks], but they'll take their pound of flesh. We only had to give them a 75 percent equity stake in the company and board control. The cable guys aren't morons.[42]

In the high speed Internet area, conduit discrimination has received less attention than content discrimination. This is opposite to the considerable attention it receives in the cable TV video service area. Nevertheless, there are examples of conduit discrimination in the high speed Internet market.

In implementing conduit discrimination, the vertically integrated company would refuse to distribute its affiliated content over competing transmission media. In so doing, it seeks to drive consumers to its transmission media and weaken its rival. This is profitable as long as the revenue gained by attracting new subscribers exceeds the revenue lost by not making the content available to the rival. Market size is important here, to ensure adequate profits are earned on the distribution of service over the favored conduit. Although some argue that "the traditional models of discrimination do not depend on the vertically integrated firm obtaining some critical level of downstream

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of the broadband access services provided by cable broadcast carriers would create both the incentive and opportunity for these carriers to lessen competition and choice in the provision of broadband service that could be made available to the end customer . . .The telephone companies also have sources of market power that warrant maintaining safeguards against anticompetitive behaviour. For example, telephone companies are still overwhelmingly dominant in the local telephony market and, until this dominance is diminished, it would not be appropriate to forebear unconditionally from rate regulation of broadband access services.

[37] America Online Inc., *Open Access Comments of America Online, Inc.*, before the DEPARTMENT OF TELECOMMUNICATIONS AND INFORMATION SERVICES, SAN FRANCISCO, October 27, 1999 (on file with author, at 8.

[38] Hayes, et al., *Empirical Analysis*, at 1.

[39] *See* Bernstein, *Broadband!*, at 57. Thus, the real game in standards is to reach critical mass for your platform without giving up too much control. This requires a careful balance between openness (to attract others to your platform) and control over standards development (to ensure an advantaged value-capture position). Of course, the lessons of Microsoft, Cisco, and others are not lost on market participants, and these days no player will willingly cede a major standards-based advantage to a competitor. Therefore, in emerging sectors such as broadband, creating a standards-based edge will likely require an ongoing structural advantage, whether via regulatory discontinuities, incumbent status, or the ability to influence customer behavior.

[40] Bernstein, *Broadband!*, at 57.

[41] Hausman et al.,*Residential Demand for Broadband*, at 133.

[42] Thomas W. Hazlett & George Bittlingmayer, *The Political Economy of Cable "Open Access,* (AEI-Brookings Joint Center for Regulatory Studies, Working Paper No. 01-06, 2001), *available at* http://www.aei.brookings.org/publications/working/ working_01_06.pdf., at 17 n.47 (quoting Jason Krause & Elizabeth Wasserman, *Switching Teams on Open Access?,* THE INDUSTRY STANDARD, Jan. 24, 2000, *available at* http://www.thestandard.com/article/display/1,1153,8903,00.html).

market share,"[43] in reality, the size of the vertically integrated firm does matter since "a larger downstream market share enhances the vertically integrated firm's incentive to engage in discrimination."[44]

AT&T has been accused of conduit discrimination in the high speed Internet market.[230] The AOL-Time Warner merger has also raised similar concerns. The significance of AOL's switch to cable-based broadband should not be underestimated. This switch has a powerful effect on the hoped-for competition between cable modems and DSL.[45] Although telephone companies are reluctant to admit that their technology will have trouble competing, their experts have identified the advantages that cable enjoys.[232] Fearing that once AOL became a cable owner it would abandon the DSL distribution channel, the FTC required AOL to continue to make its service available over the DSL conduit.

The focal point of a leveraging strategy is bundling early in the adoption cycle to lock in customers. AOL has also described the threat of vertically integrated cable companies in the U.S.[46] Once AT&T became the largest vertically integrated cable company selling broadband access in the U.S., it set out to prevent potential competitors from offering bundles of services. Bundles could be broken up either by not allowing Internet service providers to have access to video customers, or by preventing companies with the ability to deliver telephony from having access to high-speed content. For the Wall Street analysts, bundling seems to be the central marketing strategy for broadband.[47]

AOL argued that requiring open access early in the process of market development would establish a much stronger structure for a pro-consumer, pro-competitive market.[48] Early intervention prevents the architecture of the market from blocking openness, and thus avoids the difficult task of having to reconstruct an open market at a later time.[49] AOL did not hesitate to point out the powerful anticompetitive effect that integrating video services in the communications bundle could have. AOL argued that, as a result of a vertical merger, AT&T would take an enormous next step toward its ability to deny consumers a choice among competing providers of integrated voice/video/data offerings – a communications marketplace that integrates, and transcends, an array of communications services and markets previously viewed as distinct.[50]

Wall Street saw the first mover advantage both in the general terms of the processes that affect network industries, and in the specific advantage that cable broadband services have in capturing the most attractive early adopting consumers.[51] First mover advantages have their greatest value where consumers have difficulty switching or substituting away from the dominant product.[52] Several characteristics of Broadband Internet access are conducive to the first mover advantage, or "lock-in."

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[43] Hausman et al., *Residential Demand for Broadband*, at 156 (footnote omitted). The ACA provides the calculation for cable operators.

[44] Hausman et al., *Residential Demand for Broadband*, at 156 (footnote omitted).

[45] Bernstein, *Broadband!*, at 12-14; Merrill Lynch, AOL *Time Warner*, at 33.

[46] AOL has argued: At every key link in the broadband distribution chain for video/voice/data services, AT&T would possess the ability and the incentive to limit consumer choice. Whether through its exclusive control of the EPG or browser that serve as consumers' interface; its integration of favored Microsoft operating systems in set-top boxes; its control of the cable broadband pipe itself; its exclusive dealing with its own proprietary cable ISPs; or the required use of its own "backbone" long distance facilities; AT&T could block or choke off consumers' ability to choose among the access, Internet services, and integrated services of their choice. Eliminating customer choice will diminish innovation, increase prices, and chill consumer demand, thereby slowing the roll-out of integrated service; AOL, *Comments, Transfer of Control*, at 11.

[47] Goldman Sachs, America Online/Time Warner, at 14, 17.AOL Time Warner is uniquely positioned against its competitors from both technology and media perspectives to make the interactive opportunity a reality. This multiplatform scale is particularly important from a pricing perspective, since it will permit the new company to offer more compelling and cost effective pricing bundles and options than its competitors. Furthermore, AOL Time Warner will benefit from a wider global footprint than its competitors" ". . .[W]e believe the real value by consumers en masse will be not in the "broadband connection" per se, but rather an attractively packaged, priced, and easy-to-use service that will bundle broadband content as an integral part of the service.

[48] AOL, *Comments, Transfer of Control*..

[49] Jonathan Krim, *FCC Rules Seek High-Speed Shift: Phone Firms Would Keep Cable Rights*, WASH. POST, Feb. 15, 2002, at E1 (on the higher cost of addressing problems *ex post*).

[50] AOL, Comments, Transfer of Control, at 9-10.

[51] Merrill Lynch, AOL *Time Warner*, at 38 ("If the technology market has a communications aspect to it, moreover, in which information must be shared [spreadsheets, instant messaging, enterprise software applications], the network effect is even more powerful."); Bernstein, *Broadband!*, *supra* note 54, at 26: "Thus, if the MSOs can execute as they begin to deploy cable modem services in upgraded areas, they have a significant opportunity to seize many of the most attractive customers in the coming broadband land grab. These customers are important both because they represent a disproportionate share of the value and because they are bell weathers for mass-market users."

[52] Merrill Lynch, AOL *Time Warner*, at 38 ("If the technology market has a communications aspect to it, moreover, in which information must be shared [spreadsheets, instant messaging, enterprise software applications], the network effect is even more powerful."); Bernstein, *Broadband!*, *supra* note 54, at 26: "Thus, if the MSOs can execute as they begin to deploy cable modem services in upgraded areas, they

The local telephone companies have outlined a series of concerns about lock in.[53] High-speed access is a unique product.[51] The Department of Justice determined that the broadband Internet market is a separate and distinct market from the narrowband Internet market.[55] There are switching costs that hinder competition, including equipment (modems) purchases, learning costs, and the inability to port names and addresses. Combining a head start with significant switching costs raises the fear among the independent ISPs that consumers will be locked in. In Canada, AT&T argued that the presence of switching costs could impede the ability of consumers to change technologies, thereby impeding competition.[56]

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have a significant opportunity to seize many of the most attractive customers in the coming broadband land grab. These customers are important both because they represent a disproportionate share of the value and because they are bell weathers for mass-market users."

[53] Hausman, et al., *Residential Demand for Broadband*, at 164. "Due to the nature of network industries in general, the early leader in any broadband Internet access may enjoy a "lock-in" of customers and content providers – that is, given the high switching costs for consumers associated with changing broadband provider (for example, the cost of a DSL modem and installation costs), an existing customer would be less sensitive to an increase in price than would a prospective customer."

[54] Hausman, et al., *Residential Demand for Broadband*, at 136-48; Bernstein, *Broadband!*, 54, at 8; *AT&T Canada*, at 12. "AT&T Canada notes that narrowband access facilities are not an adequate service substitute for broadband access facilities. The low bandwidth associated with these facilities can substantially degrade the quality of service that is provided to the end customer to the point where transmission reception of services is no longer possible."

[55] Amended Complaint of the Dep't of Justice at 6, U.S. v. AT&T Corp., 2000 WL 1752108 (D.C. Cir. 2000) (No. 1:00CV01176), *available at* http://www.usdoj.gov/atr/ cases/indx4468.htm.

[56] AT&T Canada, Comments of AT&T Canada, at 12. The cost of switching suppliers is another important factor which is used to assess demand conditions in the relevant market. In the case of the broadband access market, the cost of switching suppliers could be significant, particularly if there is a need to adopt different technical interfaces or to purchase new terminal equipment for the home or office. Given the fact that many of the technologies involved in the provision of broadband access services are still in the early stages of development, it is unlikely that we will see customer switching seamlessly form one service provider to another in the near-term.

Excerpt from
"Antitrust as Consumer Protection in the New Economy:
Lessons from the Microsoft Case"
***Hastings Law Journal*, 52: 4, April 2001**

Contrary to the claims of a headline in the *New York Times* Book Review, Microsoft did not lose this case "by defending too much too often."[57] It did not lose because of a remarkably inept defense,[58] or because of allegations that crucial pieces of evidence were rigged,[59] or because of an irrational or biased judge.[60] It lost because its acts were simply indefensible. The intent and effect of its behavior was so blatantly anti-competitive and the economic assumptions necessary to excuse it so narrow and unrealistic, that not even a conservative judge—Ronald Reagan's first judicial appointee[61]—could do anything but find Microsoft guilty by a reasonable interpretation of the antitrust rules (see Exhibit I-1). In fact, numerous conservative antitrust thinkers have recognized that a knee jerk defense of Microsoft is wrong, because it risks destroying all reasonable rules of a productively competitive marketplace,[62] and warned allowing such behavior will undermine the fundamental competitive dynamic that drives progress in our capitalist economy.[63]

EXHIBIT I-1

THE CASE AGAINST THE MICROSOFT MONOPOLY

	FACT(Paragraph No.)	**LAW** (Page No.)
MARKET STRUCUTURE		
MONOPOLY POSITION	18-21,33-35	4,5
BARRIERS TO ENTRY		
Hardware	19,20,22-27,54-55	4,6
Software	30,36-43,141,166	4,5,6
CONDUCT		
UNDER THE TABLE		
Abrogation Of Contracts	390,394	18
Intimidation	106,129,236,355	6,10
Market Division	88,105	10,22
Patent Infringement	390,394	
Reverse Bounty	139,260,2951	6,20
Predation	107,137-139,147	6,10,16,21,22
CONTRACT PROVISIONS		
Exclusive Deals	143,147,230-234, 247,259-260	10,15,37,38

57.Adam Liptak, *Microsoft Lost Its Antitrust Case by Defending Too Much Too Often*, NY TIMES ON THE WEB, Feb. 4, 2001, *at* http://www.nytimes.com.

58.*See* Rajiv Chandrasekaran, *U.S., 19 States Discuss Possible Sanctions Plan for Microsoft*, WASH. POST, Feb. 15, 1999, at A1 (using the word "stumbling" to describe the presentation of Microsoft's defense); *see also* James V. Grimaldi, *Some Observers Say Microsoft Has Blown Its Case with Blunders*, SEATTLE TIMES, Feb. 9, 1999, *available at* http://archives.seattletimes.nwsource.com.

59.The most striking example of tainted evidence was the presentation of a videotape which purported to show that the browser could not be removed without impairing the function of the operating system. The witness presenting the video could not account for discontinuities on the tape. JOHN HEILEMANN, PRIDE BEFORE THE FALL 181-86 (2001). Microsoft never did sort out what had occurred, so it is unclear whether this was an honest mistake or deception. Another incident, having to do with a survey that Microsoft had commissioned to support its case, presented the court with a direct effort to mislead. Microsoft appears to have developed a survey of browser users which was purposefully intended to provide an after the fact defense of its behavior. *Microsoft Rigged Survey?*, CNNFN, (Jan. 14, 1999), *at* http://cnnfn.cnn.com/1999/01/14/technology/microsoft/. When one of Microsoft's outside witnesses relied on this data in court, rather than the actual data on which Microsoft's executives relied, the Judge was quite blunt in his rebuke. *See Microsoft*, 84 F. Supp. 2d at 101.

60.Interviews granted during the trial and public statements since have resulted in the appeals court asking parties to comment on the judge's behavior.

61.KEN AULETTA, WORLD WAR 3.0, at 42 (2001).

62.Robert Bork, *The Most Misunderstood Antitrust Case*, WALL ST. J., May 22, 1998, at A16; Dan Oliver, *Necessary Gateskeeping*, NAT'L REV., May 4, 1998, at 43.

63.Kenneth Starr, Progress and Freedom Foundation and the Brookings Institution, Remarks, *in Microsoft Antitrust Case and Computer Industry Competition*, (C-SPAN television broadcast, Feb. 22, 2001).

Microsoft attacked the fundamentals of antitrust, hiring the Dean of the Massachusetts Institute of Technology business school and a bevy of consultants[61] to present a theory that asked the court to abandon its traditional view of competition and accept the proposition that markets will inevitably be dominated by very few, very large companies. They claimed that competition does not take place within markets; the struggle is for the entire market. Market domination is benign because firms enjoy the benefits of network effects and virtuous circles of increasing productivity, while the fear of being replaced as the industry leader drives even the dominant firm to innovate and treat consumers just as well as traditional competition for market share in old economy industries.[65] Consequently, Microsoft did not violate the antitrust laws, it was simply the winner-take-all nature of the industry that made it act this way and gave it market dominance. By this definition virtually no act could violate the antitrust laws in this industry.[66]

Evidence at trial revealed that precisely the opposite was true. Because the nature of the industry was not sufficient to entrench its monopoly, Microsoft resorted to repeated, well-documented and protracted campaigns of anti-competitive behaviors to squash its competition. If network externalities would have been sufficient to entrench Microsoft, the immense amount of managerial time and effort and the hundreds of millions, if not billions, of dollars it burned up foreclosing the market to competing products was wasted. It should not have needed to use all these business strategies; it could have relied on just delivering a better product in a networked industry.[67]

The trial also showed that Microsoft's claims to pursuing consumer friendly business tactics that serve the public were contradicted by its actions. If expanding demand for Windows by promoting a complementary product was Microsoft's concern, it did not have to spend hundreds of millions of dollars making sure the dominant browser was Explorer, not Navigator. Since innovation would be the key to any such "system" effects, Microsoft should never have slowed its own products or prevented other products from getting to market, since all innovation stimulates demand for Windows. Microsoft should not have cared which brand was used. It should certainly not have spent so much effort on forcing Navigator out of the Mac market.

If bundling were important to expanding demand by creating convenience and lowering costs, Microsoft should not have cared which complements were bundled, since the better they all worked, the greater the demand, but it repeatedly sought to prevent any product, other than its own, from being bundled on new PCs. If improved functionality and ease of use through integration of complement products were critical to stimulating demand, Microsoft should never have threatened to or actually withheld access to interfaces or jolted non-Microsoft products since they needed to function well to expand demand.

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64. In the courtroom, Richard Schmalensee analyzed the market structure of the software industry. *See* Report of Direct Testimony of Richard Schmalensee, United States v. Microsoft Corp., 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233) (relying on the empirical work of Bernard J. Reddy et al., *Why Does Microsoft Charge So Little for Windows?*, NAT'L ECON. RESEARCH ASSOCS., Oct. 8, 1998. David S. Evans et al., *The Rise and Fall of Leaders in Personal Computer Software*, NAT'L ECON. RESEARCH ASSOCS., Jan. 7, 1999, and Kenneth G. Elzinga & David E. Mills, *PC Software* (Sept. 1998) (all prepared with support from Microsoft)).

65. STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS & MICROSOFT: COMPETITION AND ANTITRUST IN HIGH TECHNOLOGY 154-57 (1999) [hereinafter LIEBOWITZ & MARGOLIS, LOSERS].

66. As Schmalensee wrote in the *American Economic Review*, the month after the trial ended: Economists tend to define predatory acts as, roughly, acts that are rational only if they chasten or eliminate competitors. Courts, aware of the cost of discouraging competition, tend to require more, including short-term losses from the acts at issue and plausible expectation of future recoupment of those losses. Clear evidence of intent may help a court decide whether a particular act was predatory. In Schumpeterian industries, however, with "winner take most" markets, neither the basic definition above nor evidence of intent is economically useful. If there can be only one healthy survivor, the incumbent market leader must exclude its competition or die. Any strategy that does not exclude competition will not result in survival. There is no useful non-exclusion baseline, which the traditional test for predation requires. Moreover, if near-monopoly is inevitable, welfare is not generally increased by restraining the ferocity of competition for that position, particularly if competition is channeled in directions that benefit consumers, such as innovation or low prices. As to intent, in a struggle for survival that will have only one winner, any firm must exclude rivals to survive. The intent to exclude is the intent to survive. In a "winner take most" market, evidence that A intends to kill B merely confirms A's desire to survive.Richard Schmalensee, *Antitrust Issues in Schumpeterian Industries*, 90 Am. Econ. Rev. 192, 193-94 (2000).

67. As the *Economist* pointed out, the picture of a new form of beneficial monopoly, relying on network effects to dominate in a positive way, could not hide the reality of plain vanilla monopoly power. If network effects did in fact assure monopoly power, the Microsoft monopoly in the operating-systems market would not have been illegal. Under the Sherman Act, monopoly is lawful. It is actions to defend or extend monopoly that break the law. On the view that bad standards are strongly self-reinforcing, no such monopoly-defending action would have been needed. . . . New paradigm or old, the law has no quarrel with "natural monopolies." It is precisely because network effects were not enough to entrench Microsoft's monopoly—deliberate steps to stifle competition were required too—that the company may face draconian penalties.*Antitrust on Trial*, ECONOMIST, Nov. 13, 1999, at 84. A liberal, journalistic version of the same conclusion can be found in Robert Kuttner, *Bill Gates, Robber Baron*, BUS. WK., Jan. 19, 1998, at 20.

If Microsoft were seeking to increase revenues by steering customers through its browser to its portal, it should never have given AOL equal standing with MSN on the boot screen at no charge or allowed OEMs to direct customers to their portals, as long as they used Explorer, not Navigator.

If a pleasing consumer experience is important to expanding demand, Microsoft would have heeded the entreaties of OEMs to simplify and modify boot sequences, when they faced the wrath of dissatisfied consumers, instead of paying them to put up with consumer hassles. It would not have compromised the stability of the operating system with excessive integration.

Microsoft illegally eliminated competition to defend and extend its monopoly and imposed a heavy price on the public. Consequently, application of traditional antitrust rules will achieve exactly the reverse of what Microsoft claimed it would—it will promote innovation by allowing potential competitors, who would otherwise be quickly eliminated by the giant's anti-competitive behaviors, to have a fair chance to enter the market and eventually discipline the price and the quality of Microsoft's products.

Market Dominance

Microsoft has dominated the operating system category for sixteen years and still does. No other firm has come close to replicating either Microsoft's market share or its period of dominance. Five generations of Intel-based PCs have seen no change in the dominant firm.

Microsoft is the only firm to achieve a market share exceeding 90%, first in the operating system and then in the office suite. It is the only firm to achieve the generally accepted monopoly level of 65-70% in more than one software market.

Microsoft is the only firm to dominate more than one category on the list. It dominates four of the five simultaneously and has never relinquished domination once it conquers a market.

Microsoft is the only firm on the list that purchased, rather than created, the basic programs in virtually every category it dominated.

In the one area where Microsoft has not achieved dominance, personal finance programs, it attempted to buy the industry leader but was rebuffed by the Department of Justice. The reason it has failed to dominate this area is also revealing. Schmalensee recognized that personal finance software is not as heavily subject to network externalities.[68] Microsoft is less able to leverage its market power over the operating system to conquer this market, perhaps that is why it failed.

When Schmalensee analyzed the installed base of users, he gave a similarly distorted view.[69] He simply left out Microsoft's base. He identified approximately twenty-three million non-Microsoft users, split roughly equally between Mac and others.[70] The suggestion is that the non-Microsoft market is large enough to provide a base for competition. This approach is misleading, since the Microsoft installed base is at least twelve times as large as the combined competition, and could be as much as twenty times as large depending on what one assumes about the life-span of computers (see Exhibit III-2). It is approximately twenty-five times as large as the next largest competitor. It is over thirty times as large as the next largest PC-based competitor. Given the huge advantage in economies of scale attendant on such a base, it is extremely difficult for entrants to build a business on the basis of the non-Microsoft installed base.[71] A realistic analysis of industry leadership contradicts the Microsoft view. There is no "serial" in Microsoft's monopoly.

(2) Barriers to Entry

As unconvincing as the market structure analysis was, the second prong of the Microsoft argument was even weaker. Microsoft's defenders claimed that its dominant market position and extremely high market share do not

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68.*Id.* at 39.

68.*Id.* at 39.

69. *Id.* at 50-55.

70. *Id.* at 54.

71. The discussion of the number of available programs is similarly distorted. Schmalensee/NERA identify thousands of programs available for competing operating systems. Mac is identified with about 12,000 programs in 1998. *See* Report of Direct Testimony of Richard Schmalensee.at 5e . Windows had twice as many programs available five years ago. *See* Declaration of David Sibley at 14, United States v. Microsoft Corp., 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233) (citing a figure of 25,000 for 1993).

constitute a basis for the exercise of market power because entry and exit in the software industry are extremely easy. Switching costs, compatibility problems and network effects are not substantial entry barriers.[72]

Microsoft executives knew full well that each of the problems that Schmalensee/NERA dismissed is actually a "*huge*" barrier. Through their words and deeds Microsoft's senior executives demonstrated that they believed the opposite of what the experts said and acted in exactly the opposite manner in the market. Microsoft's witnesses asked the court to disregard their words and deeds and believe that Microsoft executives did not understand their own market.

In a December 1997 memorandum, the Senior VP responsible for pricing to Microsoft's most important customers—computer manufacturers (original equipment manufacturers or OEMs)—concluded that Microsoft's high prices were protected by a variety of barriers to entry.[73] Although computer manufacturers had an incentive to compete in operating systems because of Microsoft's high prices, they faced problems of consumer switching costs.[74] Software vendors were stymied by compatibility problems.[75] Even Intel could not compete in operating systems,[76] since Microsoft could respond to such a threat by using its deep pockets to buy a chip manufacturer and bolt its operating system onto the CPU, leveraging control of compatibility to defend and extend its monopoly.[77] So much for the claim that a brilliant computer science major in his garage can displace Microsoft;[78] not even the combination of Intel, Compaq, Sun and Netscape can overcome these barriers to entry.[79]

Corporate Conduct

Microsoft's defense of its conduct relies on a claim that it just competes very hard in every product market it enters.[80] Its experts place a great deal of emphasis on product quality. Microsoft's domination of product lines is attributed to the fact that, while it starts behind in most products, it develops equal quality and then wins the market.[81] The whole market tips to Microsoft, once their product is superior.[82] In particular, *Losers* claims that by 1996 Internet Explorer had pulled equal with Netscape Navigator.[83]

As with the evidence on market structure, the direct evidence on conduct refutes the claims of Microsoft experts with great specificity. Contradicting the theory, this was the very moment at which Microsoft executives

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72. Report of Direct Testimony of Richard Schmalensee, at 55-63.
7.. Government Exhibit #365: Memorandum from Joachim Kempin to Bill Gates, dated Dec. 16, 1997, United States v. Microsoft, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233); *see also* Mary Jo Foley, *Who is Microsoft's Secret Power Broker?*, ZDNET, Feb. 1, 1998 (describing Joachim Kempin by saying "he has the final sign-off on all Microsoft licensing contracts with all hardware makers . . . and he is the Microsoft official around whom swirls most of the current Microsoft vs. DOJ fireworks").
8. Government Exhibit #365: Memorandum from Joachim Kempin to Bill Gates, dated Dec. 16, 1997, United States v. Microsoft, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233). Our high price could get a single OEM or a coalition to fund a competing effort. While this possibility exists I consider it doubtful even if they could get a product out that they can market it successfully, leapfrog us and would not deviate them from their own standard. Could they convince customers to change their computing platform is the real question. The existing investments in training, infrastructure and applications in windows computing are huge and will create a lot of inertia.
75. *Id* SUN and its coalition with Java. For the next 2-3 years the barriers are huge. . . In addition there is the compatibility barrier. . . [Netscape] may come from the browser side, but I consider them too weak to succeed alone so they are only dangerous if they team up with SUN. Again compatibility and yet another platform are the biggest inhibitors.
76. *Id* This could be an INTEL led and funded coalition—say with Compaq and Netscape. I am convinced they have been thinking about this for some time. They could buy SUN SOFT or start a skunk work project on their own. If they decide to sell the Operating System for $1 and the CPU for $200 they will get the OEMs on their side. The customer inertia argument remains and that will prevent them to build momentum easily.
77. *Id* Our reaction could be to buy National semiconductor or AMD or both and own the CPU and the SW business—while both stocks are taking a dive. We would sell SW at $100 and CPU at cost +1. How sure are we of our partnership and how fast could we react if needed? We could bring compatibility to another platform better than anybody else and we would have the money to fund the fabrication capacity.
78. Report of Direct Testimony of Richard Schmalensee, *supra* note, at 47.
79. In this regard, the fact that Microsoft has successfully prevented Intel from developing its NSP software as disclosed in the trial is a very important element of the overall case. Intel could not, over Microsoft's objection, even bring a new piece of software to market in a field that Microsoft did not dominate. The chances it could bring a competing system to market are even smaller. *See Microsoft*, 84 F. Supp. 2d at 94-103.
80. Report of Direct Testimony of Richard Schmalensee, at 127.
81. *Id.*
82. See LIEBOWITZ & MARGOLIS, LOSERS, at 165-1733.
83. *Id* at 217-23.

were redoubling their efforts to use their "other factor" leverage to drive Netscape from the market.[84] Competing on quality was not at all what Microsoft had in mind. Foreclosing the market was. Microsoft went to great lengths to bring that result about.

The evidence at trial focuses on Microsoft's battle to prevent Netscape/Java from becoming a threat to the Microsoft monopoly through insertion into the middle of the market,[85] although the evidence indicates that the abusive business model affected many markets over the course of at least a decade.[86] The CEO of the company made it clear that the browser was a competitive threat to Microsoft's dominant position.

> A new competitor "born" on the Internet is Netscape. Their browser is dominant, with 70% usage share, allowing them to determine which network extensions will catch on. They are pursuing a multi-platform strategy, where they move the key API into the client to commoditize the underlying operating system.[87]

As Microsoft saw it, Netscape/JAVA could weaken its hold on the market because they were able to insert themselves between the Windows operating system and the applications that ran on top of it. They are "middleware." They offer independent software vendors (ISVs) the possibility of writing applications that can work with many operating systems. They do this by making available to programmers the applications programming interfaces (APIs). When APIs are exposed, programmers can "call" them to develop new applications.

Because they hope to be compatible with numerous operating systems and hope to support many applications, these "middleware" programs make consumers indifferent to which operating system is used. This threatens to weaken Microsoft's hold on the market. In its terms, it "commoditizes" its core product. If a competitor can create a stock of compatible applications, he can advertise that the new operating system can run all the existing programs, undermining the economic leverage of Windows. If the installed base of platforms and browsers are out there, the Windows operating system could be bypassed. By capturing the browser market, Microsoft precluded that possibility. The campaign against Netscape simultaneously extended the monopoly into the browser market and defended the monopoly in the operating system market by preserving the barrier to entry.

Microsoft's first response to the growth of the Internet and the development of the browser as a threat to its operating monopoly appears to have been to attempt to divide the market or gain a mutual non-aggression agreement.[88] That is, it sought to convince a competitor to go in one direction, while it went in another. There are at least four examples in the evidence in which Microsoft sought to divide the market. Microsoft attacked Intel's contemplation of developing software applications, denying consumers functionalities for years.[89] Apple software efforts were also the object of Microsoft efforts to divide markets.[90] IBM was a particular target for Microsoft efforts to seal off its market.[91]

If the market division proposal was turned down, Microsoft threatened to go into the competitors' line of business more vigorously. While the attack on Netscape was the central focus of the case, other instances also involved major players in the industry.[92] Using the operating system as the core of its market power,[93] Microsoft erects barriers to entry. It freezes out competitors with incompatibilities,[94] builds in features to impede or disable

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84. *See Microsoft*, 84 F. Supp. 2d at 51 (quoting messages from James Allchin to Paul Maritz).I don't understand how IE [Internet Explorer] is going to win. The current path is simply to copy everything that Netscape does packaging and product wise. . . . We are not leveraging Windows from a marketing perspective and we are trying to copy Netscape and make IE into a platform. We do not use our strength which is that we have an installed base of Windows and we have a strong OEM shipment channel for Windows. I am convinced we have to use Windows this is the one thing they don't have . . . We have to be competitive with features, but we need something more—Windows integration.
85. *See id.* at 28-29.
86. *See generally* JENNIFER EDSTROM & MARLIN ELLER, BARBARIANS LED BY BILL GATES (1998); WENDY GOLDMAN ROHM, THE MICROSOFT FILE (1998); RANDALL E. STROSS, THE MICROSOFT WAY (1997); JOHN WALLACE & JIM ERICKSON, HARD DRIVE (1992).
87. Government Exhibit #20: Memorandum from Bill Gates, The Internet Tidal Wave, dated May 26, 1995, United States v. Microsoft, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233) [hereinafter *Internet Tidal Wave*].
88. *Microsoft*, 84 F. Supp. 2d at 30-31.
89. *Id.* at 34.
90. *Id.* at 36.
91. *Id.* at 28-43.
92. *Id.* at 34-44.
93. EDSTROM & ELLER, *supra* note 86, at 207.
94. *The World According to Microsoft*, PC WK. ONLINE, June 8, 1998.

competing programs,[95] withdraws support for competitor programs,[96] and locks customers in with constant imitation of competing products[97] or promises to imitate them.[98] These practices make it difficult for competitors to design products that operate well as the operating system is manipulated and changed.[99] There also have been charges of back room campaigns of intimidation,[100] abrogation of contracts,[101] patent infringement,[102] and predatory pricing, in which the profits from the monopoly over the operating system are used to drive competitors out of other software lines.[103]

As was its practice, when Microsoft's overture to divide the market with Netscape was rebuffed, it set out to market a browser of its own using its well-tested strategy of tying applications to its operating system product.[104] There is no evidence that Microsoft's Internet browser was superior in any way to its competitors. The preservation of its operating system monopoly was the driving force in Microsoft's entry into the browser market. This is the core of the case against Microsoft.[105] Being an innovative leader was not how this battle was to be won,[106] leverage and tying were the key,[107] including efforts to undermine the quality of the competing product.[108]

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95. The practices span at least three generations of operating systems. It began with the "scare message" in Windows 3.1 to makes DR-DOS users "feel uncomfortable and when he has bugs, suspect the problem is DR-DOS and then go out and buy MS-DOS or decide not to take the risk for the other machines he has to buy for his office." ROHM, *supra* note 86, at 89. Windows 95 and Windows 98 have apparently disabled competitors' programs rather than warn about possible incompatibilities. *See* James Gleick, *Making Microsoft Safe for Capitalism*, 1996 ANTITRUST L. & ECON. REV. 71, 81; *Windows 98 Disables Microsoft Competitors' Software*, CNET, July 4, 1998l.

96. ROHM, *supra* note 86, at 69, 70; *Mine All Mine*, TIME, June 5, 1995.

97. *See* Willow A. Sheremata, *Barriers to Innovation: A Monopoly, Network Externalities, and the Speed of Innovation*, 42 ANTITRUST BULL. 937, 941, 964, 967 (1997) [hereinafter Sheremata, *Barriers to Innovation*].

98. The preannouncement issue received considerable attention during the first federal action against Microsoft. ELLER & EDSTROM, *supra* note 86, at 42-43; WALLACE & ERICKSON, *supra* note 63, at 240-48.

99. EDSTROM & ELLER, *supra* note 86, at 117. ROHM, *supra* note 63, at 187 recounts the complaints about the desktop applications. Gleick, *supra* note 72, at 87 notes a similar phenomenon with respect to the Internet.

100. ROHM, *supra* note 86, at 148, 237, 270.

101. The line between imitation and abrogation of contracts or patent infringement has never been very clear in Microsoft's business model and has resulted in repeated disputes including court cases involving Stac Electronics, ROHM, *supra* note 86, at 147-151, as well as settlements of similar claims including CPM, see JOHN WALLACE, OVERDRIVE 41 (1997) and ROHM, *supra* note 86, at 41, and others such as pen-based systems, see ROHM, *supra* note 86, at 93-101, and hardware, see WALLACE & ERICKSON, *supra* note 63, at 390.

102. *See* ROHM, *supra* note 86, at 93-101, 147-51; Alan Akin, *Microsoft and 3D Graphics: A Case Study in Suppressing Innovation and Competition*, July 16, 1997 (posted on Boycott Microsoft *available at* http://www.vcnet.com/bms/features/); Microsoft's strategy, also known as "embrace and extend," is not new. Gates first mentioned it publicly in *Mine All Mine*, TIME, June 5, 1998.

103. WALLACE, *supra* note 101, at 162-65.

104. United States v. Microsoft Corp., 84 F. Supp. 2d 9, 43 (D.D.C. 1999).

105. United States v. Microsoft Corp., 87 F. Supp. 2d 30, 52-57 (D.D.C. 2000).Microsoft paid vast sums of money, and renounced many millions more in lost revenue every year, in order to induce firms to take actions that would help enhance Internet Explorer's share of browser usage at Navigator's expense. . . . In fact, Microsoft has expended wealth and foresworn opportunities to realize more in a manner and to an extent that can only represent a rational investment if its purpose was to perpetuate the applications barrier to entry. Because Microsoft's business practices "would not be considered profit maximizing except for the expectation that . . . the entry of potential rivals" into the market for Intel-compatible PC operating systems will be "blocked or delayed," Microsoft's campaign must be termed predatory.

106. *Id.* at 160.First we need to offer a decent client (O'Hare) that exploits Windows 95 shortcuts. However, that alone won't get people to switch away from Netscape. We need to figure how to integrate Blackbird, and help browsing into our Internet client. . . . We need to move all of our Internet value added from the Plus pack into Windows 95 itself as soon as we possibly can with a major goal to get OEMs shipping our browser preinstalled.

107. *Id.* . at 166.If you agree that Windows is a huge asset, then it follows quickly that we are not investing sufficiently in finding ways to tie IE and Windows together. . . most importantly it must be killer on OEM shipments so that Netscape never gets a chance on these systems.*d*

108. *Id.*at 160, Microsoft's executives believed that the incentives that its contractual restrictions placed on OEMs would not be sufficient in themselves to reverse the direction of Navigator's usage share. Microsoft set out to bind Internet Explorer more tightly to Windows 95 as a technical matter. The intent was to make it more difficult for anyone, including systems administrators and users, to remove Internet Explorer from Windows 95 and to simultaneously complicate the experience of using Navigator with Windows 95. As Brad Chase, Vice President for developers and windows marketing, wrote to his superiors near the end of 1995, "We will bind the shell to the Internet Explorer, so that running any other browser is a jolting experience."

Id. at 160.

Integration was a business strategy[109] to foreclose a competitor, including a delay in the release of Windows 98 until Internet Explorer 4.0 was ready to be included with that product, even though it hurt Microsoft's most important customers, the OEMs.[110]

The trial fully documented a campaign to cut off a potential competitor's air supply by making it difficult to sell, find, or use his products, by shutting down distribution channels, denying advertising and promotion channels, undermining its functionality, denying it resources and causing it to expend resources. Microsoft carried out its war against this and other middleware threats by attempting to ensure that no PC industry participants would in any way support or assist Netscape/JAVA.[111]

At the heart of Microsoft's anti-competitive practices are four categories of abuses. First, Microsoft took steps to prevent competitors from getting the same access to users of computers or services who had entered into an agreement with Microsoft. If OEMs, ISPs, or ICPs were inclined to install other browsers, Microsoft sought to ensure that no browser would have equal placement.[112] Second, it sought to foreclose distribution channels to other browsers altogether. Contracting parties were required to ship IE, and dissuaded from shipping competing browsers.[113] Third, it took actions which were intended to ensure IE's quality was superior to browsers operating on Windows machines. Contracts required use of software that gave Microsoft a superior presentation, while the underlying software also disabled competitors.[114] Finally, there were conditions to prevent competitors from garnering resources.[115]

The quality analysis presented by Microsoft defenders is undercut by the trial evidence. It shows that Microsoft may have "won" the trade press reviews not so much because it built a better mouse trap but because it impaired the ability of its competitors to build one.[116] At exactly the time that the trade press reviews of Microsoft's browser were catching the reviews of Netscape's browser, Microsoft had launched a campaign to undermine the quality of its competition. Not only did Microsoft manipulate the operating system to give its product an advantage, it denied or slowed access to its operating system to prevent Netscape from improving and delivering its product.[117]

In addition, the court makes the point that under the weight of the anti-competitive onslaught, Microsoft's competitors were forced to give up. Squeezed out of the market and drained of resources, they could no longer afford to devote resources to the product.[118]

109.*Id.* at 167.

110.*Id.*Maritz recognized that the delay would disappoint OEMs. First, while OEMs were eager to sell new hardware technologies to Windows users, they could not do this until Microsoft released Windows 98, which included software support for the new technologies. Second, OEMs wanted Windows 98 to be released in time to drive sales of PC systems during the back-to-school and holiday selling seasons. Nevertheless, Maritz agreed with Allchin's point that synchronizing the release of Windows 98 with Internet Explorer was "the only thing that makes sense even if OEMs suffer."

111.*Id.* at 58-85.

112.*Id.* at 59-67.

113.*Id.* at 67-69.

114.*Id.* at 49-53.

115.*Id.* at 51.

116.*Id.* at 111-12.

117.*Id.* at 33-34.Although Netscape declined the special relationship with Microsoft, its executives continued over the weeks following the June 21 meeting to plead for the RNA API. Despite Netscape's persistence, Microsoft did not release the API to Netscape until late October, *i.e.*, as Allard had warned, more than three months later. The delay in turn forced Netscape to postpone the release of its Windows 95 browser until substantially after the release of Windows 95 (and Internet Explorer) in August 1995. As a result, Netscape was excluded from most of the holiday selling season.

Microsoft similarly withheld a scripting tool that Netscape needed to make its browser compatible with certain dial-up ISPs. Microsoft had licensed the tool freely to ISPs that wanted it, and in fact had cooperated with Netscape in drafting a license agreement that, by mid-July 1996, needed only to be signed by an authorized Microsoft executive to go into effect. There the process halted, however. In mid-August, a Microsoft representative informed Netscape that senior executives at Microsoft had decided to link the grant of the license to the resolution of all open issues between the companies. Netscape never received a license to the scripting tool, and as a result, was unable to do business with certain ISPs for a time.

118.*Id.* at 103-04. Not only did Microsoft prevent Navigator from undermining the applications barrier to entry, it inflicted considerable harm on Netscape's business in the process. By ensuring that the firms comprising the channels that lead most efficiently to browser usage distributed and promoted Internet Explorer to the virtual exclusion of Navigator, Microsoft relegated Netscape to more costly and less effective methods of distributing and promoting its browsing software. After Microsoft started licensing Internet Explorer at no charge, not only to OEMs and consumers, but also to IAPs, ISVs, ICPs, and even Apple, Netscape was forced to follow suit. Despite the fact that it did not charge for Internet Explorer, Microsoft could still defray the massive costs it was undertaking to

It is impossible to argue that quality won the day in the browser market. There is no way to know what would have happened in a marketplace where fair competition was taking place, although Microsoft's executives clearly believed that if they did not leverage their market power in the operating system, they would lose the browser war.[119]

D. Business Case Evidence Before the Court on Monopoly Power and the Benefits of Competition

The second pricing memorandum also provides insight into nature of monopoly rents being collected and the powerful effect that breaking a monopoly can have (see Exhibit IV-5).[120] The memorandum claims that Intel's CPU price increased over the 1990-1996 period. On a percentage basis, it did not increase as much as Microsoft's, but the increases were substantial, just over 100%. If competition were to break out, prices would tumble for both CPU and OS...

Microsoft contemplates competition breaking out in one of two ways. Intel could bolt OS onto its CPU, squeezing out the rents from OS, but preserving its rents on CPU. Since Intel's costs were put in the $170 to $180 range, the implicit cost of a start-up operating system is in the range of $20 to $30. This is quite consistent with our conclusion that the cost of Microsoft's ongoing operating system is in the range of $15 to $25. If Intel were to take this strategy, it would squeeze out Microsoft's rents and lower the price of CPU+OS by $70 to $100.

Alternatively, Microsoft could bundle CPU with its OS, squeezing out CPU rents, but protecting its OS rents. Assuming the startup costs about $70 to $75, as previously estimated by Microsoft, it could bring the bundle to market at $170. This strategy would lower the cost of CPU + OS by $100 to $125.

Competition is "ugly" to Microsoft, but if full component competition were to break out across both the products, consumers would achieve savings of almost $200. The resulting squeeze would push the profits of both companies down to reasonable levels. Implicitly, in this analysis, Microsoft's margins are about twice as large as Intel's. If these rents were squeezed out, each of the firms would see its profit margins reduced to just slightly over the average for the rest of the computer industry.

E. Indirect Consumer Harm

There are a series of additional interrelated effects of the Microsoft monopoly that must be considered in assessing the harm it imposes on the public—severe negative effects on innovation in the industry and indirect costs imposed on consumers.

Stifling Innovation by Chilling Investment in Products That Might Compete with Microsoft's Core Products: The court noted that the repeated pattern of anti-competitive actions has a chilling effect on the companies that would enter the Intel-based PC market.

Delaying and Preventing the Development of Products: The court noted at least six instances in which Microsoft sought to delay the development of competing products. It noted several instances in which it delayed the delivery of its own products to accomplish an anti-competitive outcome.

Denying Consumers Alternatives That Would Better Suit Their Needs: Microsoft imposed strict discipline on companies shipping Windows to prevent them from altering the configuration of Windows and related icons. The court was struck by the extent to which Microsoft was willing to inconvenience consumers to preserve its hold on the market and the inconvenience created by Microsoft's steadfast control of the boot screen. The court took special note of the fact that the OEMs were the ones who actually dealt with the public and they perceived a significant problem in Microsoft's refusal to allow modification of the boot screen. The costs they perceived were substantial.

Denying or Delaying the Introduction of Non-Microsoft Products: By denying or delaying the introduction of non-Microsoft products, Microsoft restricts consumer choice. These tactics were not restricted to the browser. There was a broad range of products that Microsoft slowed or prevented from getting to market.

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maximize usage share with the vast profits earned licensing Windows. Because Netscape did not have that luxury, it could ill afford the dramatic drop in revenues from Navigator, much less to pay for the inefficient modes of distribution to which Microsoft had consigned it. The financial constraints also deterred Netscape from undertaking technical innovations that it might otherwise have implemented in Navigator. Microsoft was not altogether surprised, then, when it learned in November 1998 that Netscape had surrendered itself to acquisition by another company.

119. *See id.* at 51.

120. *Id.*

Forcing Consumers to Buy Non-Microsoft Products in Inconvenient Ways: By foreclosing the primary channels of distribution with exclusive contracts and other deals, Microsoft forces consumers of non-Microsoft products to acquire them in time-consuming and inconvenient ways.

Undermining Compatibility: There were also several instances in which Microsoft undermined the ability of software applications or middleware to function properly with the operating system.

Impairing the Functionality of Microsoft Products to Defend Its Own Monopoly: Microsoft was quite willing to undermine the quality of its own and of competing products to preserve its market dominance.

Forced Upgrades and Additional Support Costs: With no competition, Microsoft upgrades, which are sold to the public, become extremely high margin products.[121] Microsoft is able to sell excessive functionality.[122] Consumers pay for more functionalities bundled into packages of software than they should and they are forced to buy bigger machines.[123] Because Microsoft does not face competition, it is does not face pressures to provide high quality products and the public is forced to purchase systems that are much buggier than they should be.

Microsoft drives a rapid product cycle[124] with inefficient software that requires bloated hardware.[125] Furgeson sums up linking the lack of innovation with the distortion of the competitive process to consumer harm.[126]

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121. Steve Lohr, *Where Microsoft Wants to Go Today*, N.Y. TIMES, June 5, 1998, at D-1 ("David Rearderman, an analyst at Nationsbanc Montgomery Securities, estimates that operating system revenues in 1997 were $4.6 billion and produced gross profit margins of 90 percent."); *see also* Denise Caruso, *Nimbly, Microsoft Has Taken Advantage of Ignorance to Reshape the World*, N.Y. TIMES, Dec. 1, 1997, at D-4 ("In contrast to product-development cycles in old-style manufacturing businesses, like automaking, extensive changes to an operating system—and the subsequent upgrades they force throughout the chain—require no costly retooling of assembly lines and no new raw materials. The main cost is human capital—some months of programmers' time.").

122. *See* Caruso, *supra* note 121. And Microsoft has taken brilliant advantage of that ignorance. Many people, for example, do not understand how Microsoft's business works or how it has come to dominate the software industry. The key to Microsoft's success is its strategy of linking its Windows operating systems—the foundation of a PC's operations—to its productivity applications, to the Internet, to its consumer products, to its programming tools and to hardware manufactures in a tight, interdependent chain. Whenever it makes a significant modification to Windows as it did in the step from Windows 3.1 to Windows 95, for example everything in the chain has to change, too. . . .Customers are caught in the competitive spiral, being constantly pressured to upgrade "obsolete" software though the definition of obsolescence is debatable.

123. Gleick, *supra* note 95, at 83.Anecdotally, it is clear that millions of high-end users have bought the upgrade but that millions of corporate customers have chosen to delay the inevitable heartache, particularly when most existing hardware lacks the speed and memory to run it well. It does not matter. In the long run virtually every desktop computer will run Windows 95 and its successors. New computers shipping now have Windows 95 preinstalled by default. Applications developers have either stopped developing for DOS and Windows 3.1 or soon will.

124. FERGUSON, at 309-10. Microsoft also uses another technique, the forced upgrade cycling of its installed base, which increases its revenues but imposes huge costs on consumers by forcing them to replace their hardware more frequently than necessary. Clearly, the rapid progress of computer hardware technology helps ease the pain of the high rate of obsolescence Microsoft creates, but there is considerable pain nonetheless. The pace of updates and sheer number of new features results in the often bug-ridden bloatware that consumers and businesses are forced into accepting. With each new round of updates, Microsoft generally discontinues or at least deemphasizes sales and support for older versions. . . . The introduction of backward incompatible new features, even if each feature is used by only a small percentage of users, will quickly result in a high fraction of new documents being unreadable by older versions of the application. The whole user base is therefore forced into a kind of perpetual motion machine of rapid version updating. . . .This forced version cycle imposes enormous costs on users that are probably beginning to approach, or even exceed, the size of the benefits discussed earlier.First, users must buy new hardware more frequently. Even larger, however, are the increased installation, service and maintenance costs imposed by this regime.

125. *Id.* at 310. Since there is rapid technological progress in semiconductors, plus genuine competition in the hardware sector, PC costs have been flat to falling. Recently, direct and Internet retailing have further reduced manufacturing and distribution costs to extraordinarily low levels. As a result Microsoft has been able to pursue its strategy without causing unacceptable increases in hardware prices. Nonetheless, even $599 PCs are probably $100 more expansive than they would be if Microsoft wrote products more carefully and without artificial feature increases. More important, people would not need to replace their computers as frequently or spend as much money servicing them. These costs affect everyone, but they probably affect poor people and the developing world more than the average business user.

126. *Id.* Furthermore, too much Microsoft software is just *bad*. With some justice, Microsoft can argue that it faces unique challenges a huge number of users running a very large number of slightly different hardware platforms in an industry with an unusually high rate of technical change. But Cisco routers have most of those characteristics, and they work much better. It is also noteworthy how often freeware outperforms Microsoft's commercial products. . . .Microsoft's position as the monopolist purveyor of mediocre software is another source of large, and unnecessary, social costs. Training and recovery from software errors and crashes are, along with rapid version cycling, major contributors to service costs. . . . Conservative estimates are that the cost of maintaining a desktop is several times higher than the cost of purchasing it. Cleaner, simpler, better-designed software could reduce these overhead costs, thereby freeing large numbers of technologists to do useful work. The

Precise estimates of indirect costs such as these are always difficult to make. Ferguson's discussion suggests that hundreds of billions of dollars of consumer savings would result from a restoration of competitive processes in the industry.

generally accepted rule of thumb is that corporations spend three to five times their hardware costs on service. New hardware and software products must be installed, debugged and then serviced; employees must be taught how to use them. These costs increase greatly with the novelty and heterogeneity of systems in use; hence the more upgrade cycling, the higher these costs. Finally, there is Microsoft's effect upon potential and actual innovation. It is abundantly clear that any new entrant who creates a large market or a threat to Microsoft's monopoly platform position will be the object of a brutally effective, often predatory retaliation in which Microsoft will use every unfair advantage it possesses

Excerpt from
The 21st Century Video Market Which Past is Prologue, Consumer-Friendly Digital Disintermediation or Cable Dominated Vertical Integration?
(McGannon Center for Communications Research, Fordham University, 2010)

A. DIGITAL DISTRIBUTION

Wall Street analysts who have been examining the growing competition between Internet video and traditional video distribution[127] frequently begin by discussing the impact of digital distribution on the music labels and the determination of video content producers to avoid that fate.[128] Or as Comcast puts it, outside its Application,[129] they need to make "sure that we get ahead of the steamroller that is the Internet."[130] The time frame in which this steamroller is projected to arrive is relatively short and the extent of the potential competition is pervasive.[131] The music labels have suffered a major reduction in the revenues and margins as a result of digital distribution and the concern of the Wall Street analysts is the ability of the video content producers to maintain their rate of profit. This paramount Wall Street concern is only part of a proper economic analysis. Rather, the following key elements (which are given short shrift in these analyses) must also be considered:

- **Consumer Welfare**: In the Wall Street analyses, the question of how consumers have fared is at best given cursory treatment. While the convenience of digital distribution is frequently noted, the direct impact on the consumer pocketbook, consumer surplus in economic terms, receives little attention.
- **Super-Profit Protectionism**: The possibility that the profit margins the music labels were trying to defend with their war against digital distribution were excessive never enters the analysis.
- **Efficiency Gains to Industry**: The efficiency gains in the industry also do not receive the attention they deserve.

Since it is the job of Wall Street analysts to advise investors about the prospect for (preferably supra-normal) profits, these blind spots in their analysis are understandable, but policy makers must have a broader and more complete view. The consumer and public interest impact of technological change, market structure, and alternative business models must be taken into account by policy makers. The investor view must be balanced against the consumer view to ensure a market structure that is efficient, stable and equitable.

1. Avoiding the Nightmare on Elm Street

The juxtaposition of the music and video industry approaches to digital distribution provides the launching point for one recent study entitled *Internet Video: Field of Dreams or Nightmare on Elm Street?* Needless to say, the

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[127] Piper Jaffray, *Internet Video: Field of Dreams or Nightmare on Elm Street?*, November, 2009, p. 5.

[128] For example, the opening section of the Piper Jaffray analysis is entitled "Music v. Video: Why These Markets are Traveling Down Different Paths." Similarly, the Title page of Bernstein's *Web Video: Friend or Foe, and to Whom* (October 7, 2009), starts with an observation about the difference between music and video and links that difference to the proactive behavior of Comcast. *See also* Tim Arango, "Cable TV's Big Worry: Taming the Web," *New York Times*, June 23, 2009 ("What is at stake is perhaps the last remaining pillar of the old media business that has not been severely affected by the Internet: cable television. Aware of how print, music and broadcast television have suffered severe business erosion, the chief executives of the major media conglomerates...have made protecting cable TV from the ravages of the Internet perhaps their top priority.") ("Arango, Taming the Web")

[129] The Application claims "[c]urrently, online video content does not compete directly with MVPD service.... Indeed, online video distribution is presently incremental and complementary to Comcast's cable business" (at 99). Yet earlier in the Application, online video is referenced as an alternate choice for consumers (at 4). Comcast's recent SEC 10-K, filed after the Application, lists "online services that Internet video streaming, downloading and distribution" as a competitor. *See* Comcast Corp., SEC 10-K, p. 6, Feb. 23, 2010. Similar revelations were offered in a previous SEC filing: Comcast Corp. SEC 8-K, p. 16, Dec. 22, 2009. NBC is no different, telling the Commission in 2009 that "The Internet as a distributor of high-quality video programming has reached the tipping point." Reply Comments of NBC Universal, Inc In the Matter of *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 07-269, p. 2 (Aug. 28, 2009).

[130] Jeff Baumgartner, "Comcast Nears 'TV Everywhere' Launch," *Light Reading*, Sept. 9, 2009.

[131] UBS Investment Research, *Can Pay TV Benefit from Online Video?*, p. 9. NBC recently stated that "[t]he Internet as a distributor of high-quality video programming has reached the tipping point." Reply Comments of NBC Universal, In the Matter of *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, MB Docket No. 07-269, Aug. 28, 2009.

music sector is seen as the nightmare on Elm Street. The music industry fate is depicted as follows.[132] Faced with a consumer rebellion, the music labels tried to lock down content and slow alternative distribution. Finally realizing that they needed a digital distribution model, they ended up the captives of a high tech company (Apple), whose primary interest was in selling hardware and other peripherals. Pricing content to promote penetration, a strategy well known and effective in the Internet space, meant usage charges were kept low and the margins for the record labels were squeezed. An industry that was focused on high margins driven by the "value" of the product had difficulty viewing the world through a low margin, penetration-promoting lens.

The analysts' buzzwords for what must be avoided by the incumbents in the video industry structure are *arbitrage*, *cannibalization*, and *disintermediation*.[133] As used in this context, each of the terms indicates a shifting in the flow of commerce through a distribution channel that yields high profits to the incumbent to a channel that yields a lower rate of profit, or the removal of the flow of commerce from the incumbent's channel entirely. Each of the players who have leverage in the current supply chain is at risk of having their control over distribution diminished. This is particularly true for the two sectors involved in the Comcast-NBC Universal merger, video content production and multichannel video distribution. For the content owners, the risk is "leakage" of their content into channels that command lower revenues.[134] For distributors, it is the potential loss of subscribers, who "cut the cord," reduce their payments for premium content, or resist price increases because they have alternative distributors available to them.[135]

Another motivating factor in reacting to the potential for digital distribution is the potential for piracy of content. Wall Street analysts are divided on the question of piracy. Some see avoiding piracy of content as a primary motivator for developing business models that allow consumers convenient access to content.[136] Others think the piracy concern is overblown.[137]

When Wall Street analysts are contemplating the array of concerns for the participants in the video product space, they see diversity among the players in the traditional MVPD product space, content firms whose interests are defined by primarily ad-supported (over-the-air) networks versus content firms whose interests are primarily defined by fee supported (cable) networks,[138] incumbent cable operators versus new entrants,[139] and cable MSO/broadband ISPs versus content companies,[140] as well as several other sets of players who have little role in the traditional

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[132] Piper Jaffray, *Internet Video*, p. 4. *See also* Ronald Grover, Tom Lowry and Cliff Edwards, "Revenge of the Cable Guys," *BusinessWeek*, March 11, 2010 ("Jeff Bewkes and Brian Roberts, the CEOs of Time Warner and Comcast…took a lesson from the music labels, which looked up one day to find that Steve Jobs and Apple had taken control of their inventory.") ("Grover, Revenge").

[133] Bernstein, *Web TV*, p. 15. UBS Investment Research, *Can Pay TV*, p. 3, 10. Dawn C. Chmielewski and Meg James, "Hulu's tug of war with TV," *Los Angeles Times*, May 11, 2009 ("We have to be mindful of the fact that we have a good business that works for all the players," said Andrew Heller, domestic distribution president for Turner Broadcasting. "We have to find ways to advance the business rather than cannibalize it.") ("Chmielewski, tug of war"); Deborah Yao, "Cable companies want a way to win with online TV," *Associated Press*, Feb. 24, 2009 ("There's pressure on all of us," [Jeff Gaspin, President of NBC's Universal Television Group] said, referring to TV networks. "We get paid quite a bit of money from cable operators…It's important we find ways to do business that protects that business model.")

[134] UBS, Investment Research, *Can Pay TV* p. 15. Arango, Taming the Web ("Unlike broadcast television, which relies solely on advertising, cable networks have another revenue stream: fees paid by cable operators… "That stream is so important to every entertainment company that everybody is looking at that and saying, if we are not careful we could start to harm that model," Mr. Burke [President of Comcast Cable] said.)

[135] UBS Investment Research, *Can Pay TV*, p. 4. Chmielewski, tug of war ("The appetite for full-length TV shows online was larger than anyone thought or expected," said Bobby Tulsiani, Forrester Research media analyst. "And now people are starting to wonder, do we even need the cable connections?") Deborah Yao, "Cable Companies See Customers Cutting Back: 'The Beginning Of Cord Cutting,' " Associated Press, Feb. 8, 2009. (Time Warner Cable CEO Glenn Britt stated in 2009 "We are starting to see the beginning of cord cutting,")

[136] Piper Jaffray, *Internet Video*, p. 12. Chmielewski, tug of war ("Hulu was launched in March 2008 as a way of keeping TV programming safely in the hands of its creators and distributors. And by making it free, it could short-circuit piracy.")

[137] Bernstein, *Web TV*, p. 12.

[138] Bernstein, *Web TV*, pp. 9-10. Arango, Taming the Web ("Unlike broadcast television, which relies solely on advertising, cable networks have another revenue stream: fees paid by cable operators").

[139] UBS Investment Research, *Can Pay TV*, p. 15. George Szalai, "Opinion: Online Video's Impact Remains Unclear," *AdWeek*, July 3, 2009 ("'This is a way to stem concern about cable infrastructure being bypassed by free online viewing,' Collins Stewart analyst Thomas Eagan says.") Grover, Revenge ("The new attack from Silicon Valley was the most serious yet, because it threatened to permanently cut the coaxial connecting the cable companies and their subscribers. "We wake up every day and there is some new competitor out there—a Roku or a Boxee," says Melinda Witmer, Time Warner Cable's programming chief."). Daniel Roth, "Netflix Everywhere: Sorry Cable, You're History," *Wired*, Sept. 21, 2009 ("Our goal is to have everyone cancel their cable subscription.' Roku's Wood says.")

[140] UBS Investment Research, *Can Pay TV*, p. 28. Arango, Taming ("Last month, Comcast agreed to pay Disney a monthly fee to offer its Internet subscribers ESPN 360, the sports network's online channel. One analyst, Richard Greenfield of Pali Research, has called that deal "a watershed event for content owners in a broadband world, albeit that event occurred with little to no fanfare."). *See also* Comments of the American Cable Association, In the Matter of *A National Broadband Plan for Our Future*, GN Docket No. 09-51, pp. 5-6 (June 8, 2009).

MVPD market.[141] The different attitudes toward Internet TV among the various players and the likely longer-term strategies is evident in the availability of content online –

> Complete episodes of about 90% of prime-time network television shows and roughly 20% of cable shows are now available online... The online selection of live sports games is spotty as well. This season for example, the National Football League will make Sunday night games available live on the Net, but those amount to only 7% of all regular-season NFL match-ups. Cable and broadcast news shows typically aren't streamed live on the Internet, unless there's breaking news even like Hurricane Katrina.[142]

Each of the parties is likely to leverage its strategic assets to defend its current share of revenues and rents in video distribution, as well as try to capture part of the efficiency gains flowing from digital distribution. Accordingly, the compromise is to replicate the traditional relations in the new product space. Note the distinction between broadcasters, who are more likely to make content available than cable, with the exception of sports and news content, which are marquee must-have categories that provide leverage to attract audiences.

The potential efficiency gains from digital distribution deserve attention because a new technological approach to distribution has a powerful effect on a business in which distribution has been a substantial part of the cost. There are supply-side and demand-side gains.[143] Advertising can become more efficient.[144] Physical costs are reduced as redundancy of devices[145] is eliminated and economies of scale and scope combine with technological progress to dramatically lower costs.[146]

2. Organizing to Prevent Disintermediation

The plight of the music labels plays another ironic role in the Wall Street analysts that highlight one of the key aspects of antitrust analysis. Music labels certainly had an economic interest in preventing the disintermediation that eroded their rents. They reacted slowly and lacked the market power to prevent it. In the video business, content owners and cable operators are reacting more quickly. Content producers can leverage their libraries and "must have" content in a sector that is highly concentrated,[147] a situation that is not unlike the one that existed in the music sector in the late 1990s. However, the real difference is in the market power of the cable operators, who are also the dominant broadband Internet access providers. This is the fundamental difference between the music and video industries. The owners of the dominant distribution network have a direct interest in preventing the disintermediation, and have powerful tools to prevent it.

Indeed, one analyst argues that cable's market power is so much greater in the broadband Internet access business that it should abandon the traditional cable video business altogether and leverage its market power over broadband to the maximum extent possible.[148] It can shed all of the costs of video service, but preserve its share of the rents of video distribution by increasing the price of broadband access service.[149] This economic analysis can be summarized as follows:

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[141] Most notably the technology sector and device vendors, where massive amounts of storage open up prospects for a new form of distribution of content. UBS Investment Research, *Can Pay TV*, p. 10; Piper Jaffray, *Internet TV*, p. 24.

[142] Nick Wingfield, "Turn On, Tune Out, Click Here," *Wall Street Journal*, October 3, 2008.

[143] Various efficiency gains are mentioned primarily from the point of view of increasing profit. Piper Jaffray, *Internet Video*, p. 12, identifies two classical opportunities – expanding supply in the long-tail and increasing demand through greater convenience.

[144] UBS Investment Research, *Can Pay TV Benefit from Online Video?*, p. 10. *See e.g.* Mike Shields, "MTVN, Quantcast to Laser-Target Web Video Ads, " *Mediaweek*, Feb. 16, 2010.

[145] Bernstein, *Web TV*, p. 17. Declining technology costs run the gamut from bandwidth and multicasting to caching and routers, optical systems and storage.

[146] *Ibid. See e.g.* Saul Hansell, " The Cost of Downloading All Those Videos," *New York Times Bits Blog*, April 20, 2009. ("The Comcast presentation said that the effect of this is that Docsis 3 will reduce the cost of the C.M.T.S. hardware, which had been about $20 per home passed, by 70 percent, for customers at current speeds. And it will allow 100-Mbps service at a lower hardware cost than the company had been paying for its then current 6-Mbps service.")

[147] Piper Jaffray, *Internet Video*, p. 10, 31. Bernstein, *Web TV*, p. 12.See also Jason Kilar, "Doing Hard Things," Hulu Blog, Feb. 18, 2009; Jim O'Neill, "Hillcrest confirms Hulu blocking Kyle Web TV browser from its online video content," *Fierce Online Video*, March 22, 2010.

[148] Bernstein, *Web TV*, p. 14. JP Morgan Analyst, Jonathan Chaplin, "The broadband market is a duopoly"
"Providers Face Slowing Growth For Broadband," *Investor's Business Daily*, Feb. 20, 2008,

[149] Bernstein, p. 15. *See also* Saul Hansell, "The Problem With Cable Is Television," *New York Times*, May 1, 2009.

> Think of a Comcast that no longer allocates billions to manufacture set-top boxes. Bernstein Research took this thought a step further and actually crunched numbers. Turns out a dumb-pipe Comcast would do just fine competing only in broadband.
>
> That is because the real advantage of cable isn't video, where in each market it competes against two satellite broadcasters and often a telco. It is broadband, where in some markets it has a monopoly and in others a telco competitor. The price a cabler could charge for "raw connectivity" in such a duopoly is determined by the operator with the higher costs. And in this case, it's the telco. Bernstein Research puts the "telco minimum" at $85 per month, which compares with Comcast's projected 2013 average revenue per user, or ARPU of $133 per month.
>
> Matching the telco minimum in a dump-pipe scenario would lower Comcast's Arpu by 36%. This, in turn, would boost subscription counts by a conservatively estimated 20%. Costs would drop faster than revenue, however, widening margins and reducing the EBITDA [Earnings before Interest, Tax, Depreciation and Amortization] falloff caused by the abandonment of video.
>
> Meanwhile, once out of the set-top-box and video-on-demand business, Comcast could cut the $5.2 billion it budgeted for capital expenditures in 2008 by at least half. "Given the reduced capital spending," Bernstein Research concludes, "free cash flow -- the ultimate litmus test of value creation -- would soar. By our estimates, free cash flow would rise by 30% in a dumb pipe scenario.[150]

The key to the astronomical rate of profit is the market power of the cable operators, who face little competition. The $85 per month "dumb pipe-only" price for broadband is substantially more than Comcast charges for broadband today and the increase is twice what it charges for set-top boxes. The increase in the cable margins means that cable operators would capture all of the efficiency gains from the digital disintermediation (if the costs that cable shed are not incurred and recovered by the sellers of video products) or the cost to the consumer would rise substantially (if those costs are recovered from the consumer).[151]

This Wall Street analysis does not expect the cable operators to actually go down this path. For one, it is too radical,[152] and involves an exercise of market power that would attract a great deal of attention.[153] However, the analysts do expect cable operators to leverage their market power in other ways.[154] Cable operators are expected to stay in both businesses, but capture a significant part of the efficiency gains that make larger rents available by increasing prices for Internet access and reducing the opportunity for Internet TV to undermine traditional MVPD market power,[155] with tools such as

*usage based pricing[156]

*tying traditional video to Internet video,[157]

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[150] Richard Morgan, Why Hulu Matters," *The Deal Magazine*, December 11, 2009.

[151] Comcast's latest rate card for the Washington DC area reveals non-promotional monthly rates for standard level services as follows – a double play bundle at $128.35 per month, stand alone cable rate $56.95 per month and high speed internet at $39.95. If Comcast's dumb pipe broadband service is priced at $85 per month, then even if the set top box costs disappear (or are transferred directly to consumers), it is unlikely that the margins of the video content sellers would not be squeezed, putting severe upward pressure on video monthly fees.

[152] Another analyst points out that video is the primary source of revenue between the two businesses (UBS Investment Research, *Can Pay TV*, p. 10 ("Video revenues per user (ARPU) are far higher for many platforms than voice or data revenues and that gap is growing.") Nonetheless, profit margins are far lower on video services. *See e.g.* Michelle Ow, "Time Warner Cable Q1 margins led by broadband," SNL Kagan, May 6, 2010 ("Time Warner Cable Inc. continued to reap the benefits of its strong broadband performance in the first quarter as the historically high-margin broadband business ended the period with an estimated 62.8% margin, outpacing phone and video margins by more than twofold.")

[153] The dramatic increase in the cable operators' rate of profit would attract attention, as would dramatically increasing the price of data only service, which in the case of Comcast is already $59.95 per month.

[154] Bernstein, *Web TV*, p. 15: "Cable operators won't just stand by and watch they'll take actions that affect this evolution." Andrew Hampp, "MSOs Fight to Keep TV on the TV, Not the Net," *Ad Age*, June 16, 2008. ("Alexander Dudley, a spokesperson for Time Warner Cable, told Ad Age the company is prepared to go as far as withholding some of the subscriber revenue upon which networks like Comedy Central have built the bulk of their business model.") ("Hampp, Fight")

[155] Ironically, Apple, which is the central player in digital disintermediation in the music space, sees the stranglehold on the set-top box as a barrier to entry, Will Richmond, "Why Apple Still Doesn't Have a TV Strategy," *VideoNuze*, June 7, 2010.

[156] Bernstein, *Web TV*, p. 15. Wachovia Analysts Marci Ryvicker stated "We view usage-based billing, or bandwidth consumption caps, as a significant impediment to not only ZillionTV but also to true over-the-top video providers" Comm Daily, April 15, 2009. Dave Burstein, DSL Prime, Jan. 21, 2008 ("I believe Time Warner's interest in bandwidth caps has little to do with its own costs and a lot to do with the emergence of movie downloads and streaming television programs over the Internet. The smart people at Time Warner are scared of people watching TV directly over the Internet.")

*locking down content.[158]

Estimates of how fast the competitive threat will grow vary from a few years to more than a decade,[159] as do estimates of the magnitude of the threat, which reach as high as one in eight subscribers cutting the cord within a year.[160] However, there is unanimity on one proposition: that the cable operators will actively resist and seek to undermine that competition.

Of course, if they didn't create obstacles to this sort of disintermediation, cablers wouldn't be cablers. Some easy ways to forestall IP video's ascendancy include charging consumers for their Hulu use and increasing the number of commercials embedded in each Hulu episode. Only by taking control of NBCU can Comcast influence such decisions. Comcast's embracing "TV Everywhere." which allows paying subscribers to receive IP video as well as cable video, can be seen as another means to impede the same inexorable end. So, too, is the concept of usage-based pricing -- the objective of which would be to price broadband consumption for downloading IP video in ways that make both the cable company and its customers indifferent to disintermediation.[161]

If cable/broadband access providers have market power and are not inclined to abandon the video business in exchange for a dump pipe, strategies to deal with the tensions are needed. The strategy that emerges to prevent the dissipation of rents through disintermediation is to discipline the sector. This requires complex collaboration and "leadership"[162] during a crucial moment for action.[163] The largest cable/broadband operator acquiring one of the leading video content suppliers is an obvious candidate to exercise that leadership. The Wall Street analysts identify the combination of the Comcast-NBC Universal merger and Comcast's Fancast Xfinity-branded "TV Everywhere" initiative as perfect examples of the key strategies.[164] Vertical integration becomes pivotal to block the effects of digital disintermediation, and the emergence of a large firm straddling the production and distribution stages is a critical step in achieving the necessary spirit of collaboration.

> With Comcast and Time-Warner moving forward with video paywalls, are the cable companies doing what Hollywood and the music industry couldn't do? That reality is coming sooner than you think… This ain't the music business, apparently… there's still life in old dinosaur methods of content delivery when it comes to movies and teevee shows, and the conglomerates and CEO's that control them aren't too keen on giving up their domination of content delivery just yet… It's simply a browser bound way of locking you out of live streamed or stored content based on a verification ID… namely your cable account's user name and password… It is almost impossible to stop the Comcast juggernaut from taking over NBC and removing content from Hulu and other currently free broadband streaming services or aggregators. TV Everywhere, which has been tested for over a year, can be seen as simply a way for cable companies to continue with the old model of doing business.[165]

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[157] Bernstein, *Web TV*, p. 15. *See also* Grover, Revenge; George Szalai, "Opinion: Online Video's Impact Remains Unclear," *Adweek*, July 3, 2009. ("The lack of focus on such offers proves that TV Everywhere is mainly defensive for now. "This is a way to stem concern about cable infrastructure being bypassed by free online viewing," Collins Stewart analyst Thomas Eagan says.").

[158] Bernstein, *Web TV*, p. 12. *See also* Hampp, Fight, Chmielewski, tug of war.

[159] Contrast Piper Jaffray, *Internet Video*, p. 4, and Richard Morgan, "Why Hulu Matters," *The Deal Magazine*, December 11, 2009 ("Morgan, Why Hulu").

[160] Contrast *Yankee Group Says 1 in 8 Consumes will Ax Their Coax this Year*, April 27, 2010, and Convergence Consulting, *The Battle for the North America (US/Canada) Couch Potato: New Challenges and Opportunities in the Content Market* , April 2010, which puts the number at one in 30 by year-end 2011. *See also* Mike Robuck, "Report: OTT eating into video market share pie," *CedMagazine.com*, Oct. 9, 2009 ("SNL Kagan's latest report forecasts that over-the-top providers, such as Hulu, will account for 7.1 million homes by 2013, and for more than twice that number in 10 years."). For his part, Comcast's Stephen Burke, President of Comcast cable, states "We don't think that it's a problem now, but we do feel a sense of urgency," Arango, Taming.

[161] Morgan, Why Hulu.

[162] UBS Investment Research, *Can Pay TV*, p. 7.

[163] UBS Investment Research, *Can Pay TV*, p. 24. *See also* Grover, Revenge; Arango, Taming.

[164] Bernstein, *Web* Video, p. 9. Yinka Adegoke, "Web TV could come with a price tag after Comcast-NBC," *Reuters*, Oct. 4, 2009. (""We suspect Comcast believes it needs content to protect its landline distribution platform," Richard Greenfield, analyst at Pali Research, wrote in a note to investors on Friday. "It wants to mitigate the risk of becoming that scary 'dumb' pipe…Hulu was started by NBC and Fox so they could compete with Comcast. So this is a defensive move to some extent by Comcast," said Kaufman Bros. analyst Todd Mitchell. "Hulu will just become another choice of Comcast's pay-TV buffet."). *See also* Comments of Netflix, Inc, In the Matter of *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Jan 14, 2010. ("the recent announcement of the proposed merger of Comcast and NBC Universal serves to exacerbate the growing concern that MVPDs will use their control over programming networks to stifle competition, including the growing competition from online video providers like Netflix").

[165] Christian Hokenson, "TV Everywhere Leave VOD Nowhere," *HD Report*, March 18, 2010.

The most direct and obvious way to prevent disintermediation is maintain the flow of content in channels that can be controlled, which is the obvious intent of TV Everywhere: "While a lot is happening on the convergence front (e.g. Google TV, Roku, etc.), with the advent of TV Everywhere, the likelihood that cable programs will not leak out onto the open Internet is lower than ever."[166]

B. THE THREAT TO INTERNET TV

The threat that this merger poses to potential competition from Internet delivered video deserves special attention in the merger review for several reasons.

First, the incipient growth of competition on the Internet holds the greatest promise for breaking the stranglehold of traditional MVPD service providers on the video market that has presented itself in decades.[167] Over the past quarter century there have been a few moments when a technology comes along that holds the possibility of breaking the chokehold that cable has on the multi-channel video programming market, but on each occasion policy mistakes were made that allowed the cable industry to strangle competition. This is the first big policy moment for determining whether the Internet will function as an alternative platform to compete with cable. If policymakers allow this merger to go forward without fundamental reform of the underlying industry structure, the prospects for a more competition-friendly, consumer-friendly multi-channel video marketplace will be dealt a severe setback.

It is only by taking the approach we have outlined that Federal authorities can do more than just preserve the current industry structure, which is riddled with anticompetitive and anti-consumer institutions and practices. Instead, they can improve the terrain of the American video marketplace. This merger is an opportunity to jump-start the industry reform process.

Second, control over broadband Internet access is the cornerstone of the anticompetitive response to the growth of Internet competition and it is the market in which cable operators have the greatest market power. While the technology is new, the tactics being used to prevent it from breaking the market power of a tight oligopoly that control the choke point of distribution are well-known and recognized – concentration, conglomeration, vertical integration. The linking and leveraging of broadband access replicates past moments when policymakers were forced to grapple with how to promote competition, localism and diversity in the video product space.

Third, the anticompetitive harm that the merger could do to the Internet as a competitive platform for MVPD service is a perfect example of the use of vertical leverage that has horizontal effects. Starting here is the perfect antidote to the erroneous claim that because the merger is largely a vertical merger there are no merger related competition issues to be analyzed. The rehabilitation of vertical analysis in antitrust, which has long been overdue, can start in the review of this merger.

The Browser Wars as a Model for the Battle over IMVPD

An easy way to understand the threat to the Internet platform for multi-channel video programming distribution (IMVPD) posed by the Comcast-NBC merger is to recall the Department of Justice case against Microsoft.[168] The case grew out of what was known as the "browser wars" between Microsoft's Internet Explorer and Netscape's Navigator. Navigator had entered the new market for web access and grown rapidly as the leading browser, with a commitment to "write once, work anywhere." Bill Gates, Microsoft CEO, declared that " a threat is born on the Internet." The threat was the possibility that browsers could provide a platform for accessing the Internet that would work with any operating system, thereby rendering Microsoft's near monopoly over operating systems much less important. "A new competitor "born" on the Internet is Netscape... They are pursing a multi-platform strategy… to commoditize the underlying operating system."[169]

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[166] Will Richmond, "Yankee Group Cord-Cutting Research Download Available," *VideoNuze*, May 27, 2010.

[167] The Commission has recognized the Internet as an emerging competitor to traditional MVPDs on numerous occasions. *See e.g. Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 614 (2009); Dissenting Statement of Commissioner Robert M. McDowell, In the Matter of *The Commission's Cable Horizontal and Vertical Ownership Limits et al.*, Fourth Report and Order and Further Notice of Proposed Rulemaking, MM Docket No. 92-264, 23 FCC Rcd 2134 (2008); Remarks by Omnibus Broadband Initiative Executive Director Blair Levin, "Owning the Inevitable," American Cable Association's 17th Summit, April 20, 2010. ("Over-the-Top Video will eventually emerge as a challenge to the current model of multi-channel distribution of large and increasingly expensive bundles of linear programming.")

[168] United States v. Microsoft Corp., 84 F.Supp. 2d 9 (D.D.C. 1999).

[169] Government Exhibit #20.

The strategy Microsoft used to undercut this threat was described with the colorful phrase "we will cut of their air supply."[170] Microsoft set out to saturate the market with its own browsers by bundling them with the operating system software and giving them away for free. It took steps to undermine the quality of the competing browser and reinforced this strategy by offering a number of inducements to computer manufacturers (known as original equipment manufacturers or OEMs), who decide which software to put onto the computer, to pre-load only Internet Explorer.

With access to low cost distribution through the OEM channel secured for Internet Explorer and free distribution, Navigator would be denied revenues and forced to use more expensive ways to try to distribute its product. Starved of cash, Navigator would shrivel. "Microsoft could still defray the massive costs it was undertaking to maximize usage share with the vast profits earned by licensing Windows. Because Netscape did not have that luxury, it could ill afford the dramatic drop in revenues from Navigator, much less to pay for the inefficient modes of distribution to which Microsoft consigned it. The financial constraints also deterred Netscape from undertaking technical innovations that it might otherwise have implemented in Navigator."[171] Free browsers might seem like a good deal for consumers in the short run, but in the long run this strategy of eliminating competition has a heavy cost.[172] It preserves and extends the Microsoft monopoly in the operating system market and undermines innovation and development in browsers or other products that might compete with Microsoft's core products, keeping the cost of Microsoft's core product far higher than it should be. It denies consumers alternatives that better suit their needs, and forces consumers to buy products in inconvenient ways, there by imposing high costs on consumers.

2. Internet Multi-channel Video Program Distribution

Comcast's current strategy is to cut off the air supply of the Internet as a platform for competing with Comcast's core franchise business, multi-channel video programming distribution (see Exhibit IV-5). It which will

Exhibit IV-5: Strategies to Undermine Nascent Competition on the Internet

Browser Wars Strategy	Attack Internet MVPD Platform
Bundle IE browser and operating system	Bundle online video with physical space video by requiring physical subscription to get access to online video
Raise entry costs through incompatibility	Keep set top box closed, forcing IMVPD to find non-Comcast hardware
Incent OEMs to preload IE not Navigator	Pressure incumbent MVPDs to participate in TV Everywhere, shrinking the market of competing platforms
Degrade the quality of Navigator	Withhold valuable marquee content to undermine the quality or raise the cost of content available on the Internet platform. Pressure content providers to not make their products available on the Internet by offering favorable conditions for physical space distribution to those who deny Internet access to content
Make using Nav. a "jolting experience"	Use the ability to block or degrade the quality of service of specific application and Internet Service Providers, forcing IMVPD to rely on non-Comcast broadband ISP

[170] Rajiv Chandrasekaran, "Microsoft Attacks Credibility of Intel Exec," *Washington Post*, Friday, November 13, 1998; Page B1, "The Microsoft antitrust trial turned into a tense sparring match over the credibility of a witness from Intel Corp. yesterday, with a lawyer for Microsoft accusing the executive of concocting some of his most colorful testimony and the government producing several documents to support the witness's claims. On the witness stand was Steven McGeady, an Intel vice president called by the government. He testified earlier this week that Microsoft Corp. had threatened to withhold crucial technical support from Intel if the chipmaker did not stop developing software that would compete with Microsoft's products. He also made the dramatic allegation that a senior executive at Microsoft told him of an intent to "extinguish" rival Netscape Communications Corp. and to "cut off Netscape's air supply...With McGeady's credibility hanging in the balance, Justice Department lawyer David Boies set out to rehabilitate his image in the afternoon. On a large screen in the courtroom, he played several segments of a videotaped deposition by McGeady's boss, Ron Whittier. On the tape, Whittier said that he recalled the term "smother" being used to describe Microsoft's strategy at the meeting in question."

[171] United v. Microsoft Corp., 84 F Supp. 2d 9 (D.D.C. 1999)

[172] Mark Cooper, "Antitrust as Consumer Protection in the New Economy: Lessons from the Microsoft Case," *Hastings Law Journal*, 52:4) April 2001.

impose the similar costs on consumers, allowing Comcast to continue to raise cable prices and retarding the ability of the Internet to support alternative distribution models.

Comcast is proposing to bundle online video with physical space video by requiring physical subscription to get access to online video.

Comcast-NBC will have a much more valuable set of marquee content to raise the cost of and squeeze the profits of content available on the Internet platform.

Comcast has demonstrated the ability to degrade the quality of service of specific application and Internet Service Providers. This could make it far more difficult for an alternative IMVPD to enter the market, as it would have to build its audience on broadband subscribers who are not Comcast subscribers.

The combination of these five strategies, pursued by the largest broadband Internet access provider and the largest cable provider, will suck the air out of the space available for the Internet multi-channel video program distribution.

Just as in the Microsoft case, we should view the 'the separate categories of conduct... viewed, as a single, well-coordinated course of action" to see the does "the full extent of the violence that would be done to the competitive process itself.'[173] Just as in the Microsoft case, the nascent character of that competition does not render it less of a cause for concern. Indeed, in the case of cable market power, which has persisted for so many years, nascent or potential competition should be carefully husbanded by antitrust authorities.

Some of the elements of this anticompetitive strategy are already being applied by Comcast to the Internet; all have been used by the company in various forms in the past. Moreover, merger review requires the Department of Justice to make reasonable projections about the potential and likely abuse of market power. Unlike a monopolization case, which must prove past bad behavior and seek to remedy it, merger review is prophylactic, seeking to prevent future abuse.

Digital technology plays two key roles in these strategies to undermine competition that call for heightened scrutiny by antitrust officials. Digital technology gives the dominant incumbent two key assets to undermine competition.

It is pressing content providers to not make their product available on the Internet by offering favorable conditions for physical space distribution to those who deny Internet access to content.

The acquisition of NBC will give it a new set of immensely powerful weapons to strengthen the attack on the Internet.

Comcast-NBC will have a much more valuable set of marquee content to undermine the quality or raise the cost of content available on the Internet platform.

The ability to achieve low cost mass distribution of a critical technology platform (by preloading the operating system in the case of Microsoft, putting up a web site in the case of Internet TV).

Immense power to control network functionality by controlling the critical choke point (controlling the APIs in the case of the browser; controlling access to the consumer in the case of Internet TV).

[173] United States v. Microsoft Corp., 87 F.Supp. 2d 9 (D.D.C. 1999).

Mr. JOHNSON. Thank you, Dr. Cooper.

Now we will begin with questions. Wired magazine reported this summer in an article entitled "The Web is Dead: Long Live the Internet." Two decades after its birth, the World Wide Web is in decline as simpler, sleeker services—think apps—are less about the searching and more about the getting.

You wake up and you check your e-mail at your bedside with your iPad. That is one app. During breakfast you browse Facebook, Twitter and the New York Times—three more apps. On the way to the office you listen to a podcast on your smartphone—another app. At work you scroll through RSS feeds in a reader and have Skype and IM conversations—more apps.

At the end of the day you come home, make dinner while listening to Pandora. You play some games on X-box Live and watch a movie on Netflix streaming video service. You spent the day on the Internet, but not on the Web.

Mr. Feinstein, how do you antitrust regulators stay up to speed on the brisk pace of innovation when the consumers do not even realize that they are not actually on the Web most of the day. How do you rise to that technological challenge?

Mr. FEINSTEIN. You have correctly characterized it, of course, as a challenge. You know, the dynamism of these markets is often operating to the benefit of consumers, and it is the basis, I think, for us to try to find the right balance between appropriately aggressive antitrust enforcement and while remaining mindful of the benefits of innovation.

And frankly, corporate antitrust enforcement is entirely consistent, I think, with vigorous innovation. And we try to take—we try to take all of that into account.

One of the advantages, I suppose, to us of the explosion of the information economy, information-based marketplace that we are talking about, the technological, all the different ways of sending and receiving information, is that businesses and consumers who have concerns and who feel like they may be aggrieved or that they may be foreclosed from the market or their ability to compete may in some way be impaired, also are able to reach us in real time.

So it is a constant challenge between wanting to find that balance between, frankly, astounding progress on the one hand, promoting innovation and ensuring that competition continues to serve the interests of consumers by promoting innovation and by promoting competition on the merits.

Our case against Intel, for example, which I mentioned in my opening remarks, I think in some ways illustrates many of those principles, because our real concern there was a dominant firm—as we, at least as we alleged it, it was a dominant firm—that had had tremendous success and had been very innovative, but had also gotten to a point where it, in our view, was not necessarily confining itself to competition on the merits.

And the consent order that is now being considered to be made final by the commission is intended to find the balance between prohibiting past conduct that we believe constituted something other than competition on the merits, while at the same time fostering innovation and full competitive conduct going forward.

And interestingly, I mean, the very fact of the settlement of that case 6 or 7 months after it was voted out by the commission I think is a good illustration of our ability to be effective in real time, or at least what may constitute real time for antitrust enforcement.

When the settlement was being discussed, you know, one of the issues was we could litigate this matter for 3 or 4 more years. By the time it had gone through Courts of Appeals, et cetera, it could

easily have been 3 years before we had a final decision, and we might have one, but it also might have been the case that the market had in some sense moved on, and relief that was obtained 3 years from now when a final judgment might be an interesting legal precedent, but might not necessarily have had immediate impact in the markets.

By settling the case when we did, I think we achieved the goals of obtaining relief in real time and promoting competition and innovation in a dynamic market. That is just an example.

Mr. JOHNSON. Thank you.

It is my understanding that one of the reasons that makes it so tough to challenge vertical mergers is the difficulty in predicting future harms. Does that leave the FTC and DOJ one step behind in preventing harmful monopolistic behavior? And this is a question for the panel, so anyone, feel free to——

Mr. CLELAND. The real reason vertical merger enforcement is difficult is there is no court case precedent that anybody can point to that says, okay, we have got the authority to do here, and we can win. So it is the absence of that. And so prosecutors are going, boy, you know, we don't have a precedent, so it tends to want them to settle.

However, you know, what we have seen with, you know, vertical mergers is what is different about Google than Microsoft? The Department of Justice stopped the Intuit merger. They didn't allow them to get into finance, financial services. And then they sued Netscape when they tried to leverage into the Internet.

What is different about Google is not only do they have a horizontal monopoly, but they are moving vertically in so many sectors, we can just run through them, you know, in video, in books, in news and in maps, and just on down the line, and travel. They are very rapidly going into the rest of the digital economy.

And so what is different about Google on the vertical question is we have never seen anybody go from 0 to 60 into vertical from a horizontal monopoly. That is what is unique here and why it makes it so urgent for people to tune in and figure out the damage.

Mr. JOHNSON. And court decisions being a guide in this kind of rapidly evolving market is certainly problematic. But then I think it goes into this ignorance Professor—excuse me—Mr. Manne, that you spoke of. And when I say ignorance, and I am sure when you say it, it is not derogatory. It is just a basic lack of knowledge, particularly when we are talking about future technology.

Mr. MANNE. Right.

Mr. JOHNSON. Would you respond?

Mr. MANNE. Please—yes, thank you.

Right. Precisely. It is the central problem is the fact that that would look—that aggressive competition that could potentially be anticompetitive could also be pro-competitive. And the state of economic science is such that we actually don't have great tools for determining what the future speculative anti-or pro-competitive consequences of a particular business conduct are going to be.

And that is the reason why I focused in my original remarks on the decision-making process. Given that we have this dramatic amount of uncertainty, what we are forced to do is look at the potential cost of over enforcement multiplied by the likelihood of over

enforcement times the potential compared to the potential costs of under enforcement and the likelihood of under enforcement and figure out where the advantages and disadvantages lie.

And I think there is in fact a thumb on the scale in favor of what some would call under enforcement, because market competitive forces do have the mitigating effect on potentially anticompetitive outcome. I think when it comes to vertical integration in particular, we actually have an enormous——

I don't mean to imply that economics hasn't made any progress. In fact, we have a lot of economic knowledge. Scott mentioned the dearth of court cases that would support the kind of vertical case that he might like to bring.

The reason for that is because the economic literature is almost unanimous, and there are very few areas in economics that are set up as well settled—not to say completely settled, but is well settled—as the notion that vertical integration tends to be pro-competitive, and the anticompetitive complaints about vertical integration have tended not to materialize.

I don't see any reason why that would be different here than it has been since the beginning of the Sherman Antitrust Act. And simply pointing out that the sky is falling, that there is vertical integration run rampant, that there are network effects, chokepoints, privacy fears, exclusive deals, standards, artificial bundling, leveraging dominance, vertical leverage, switching costs, information asymmetry—these are all slogans.

Most of them have very little economic content that would support antitrust intervention on the basis of those concepts. That is unfortunately the state of our economic knowledge. Maybe we will find out in the future that these things really are as problematic as the people who throw those slogans around think they are. At the moment we don't have that knowledge.

Mr. COOPER. Obviously, I have a rather different view. And those slogans in the documents I provided were footnotes from antitrust cases that the Department of Justice won. So let us be clear.

The simple fact of the matter is that the Microsoft case was a slam dunk. They did all that stuff, and the courts could see it. The Intel case was a slam dunk. They did those things, and not only did the American antitrust authorities, but the Japanese and the Koreans and the Europeans found the same thing.

The notion that antitrust can't identify anticompetitive practices is bunk. The notion that false positives are more costly than false negatives is a little bit silly in the light of the financial market meltdown, the salmonella egg problems, the oil leak in the Gulf, the brownouts in California, and the tech bust after the WorldCom fraud.

The assumption that these corporations will behave themselves, and the admission of Alan Greenspan at the height of the financial crisis that his theory was flawed, simply reverses the assumption that we can trust the corporations to do the right thing, because their private interests are synonymous with the public interest.

So the point of the antitrust laws are—and they carry a heavy burden, but they have been able to show in a series of landmark cases that all those practices I mentioned are in fact used and abused in the digital marketplace. And when they put together a

good case, they win those cases. And they should not back off. They should use those principles and apply those principles to the digital industry just as vigorously as they have applied them to other sectors in the Industrial Age.

Mr. BLACK. Mr. Chairman, if I could weigh in on this a little bit, first of all, there was some discussion of the courts. And I think one of the problems in antitrust law is the last couple of decades the courts have not been terribly friendly to antitrust. And it has hampered the ability, I think, of enforcers to use some of the tools that might be available and, frankly, created the climate that has in some cases encouraged anticompetitive behavior by the private sector.

In terms of vertical and horizontal in the high-tech industry, however, I constantly am a little frustrated by the terminology, because the truth is if you look at the companies and the way they operate, it is not just horizontal and vertical, but the interconnections, the relationships, the dependencies they need to cooperate, collaborate, interoperate, it doesn't line up that simply at all.

And aside from the Google paranoia issues that seem to have crowded in here, in general we have a hugely competitive marketplace in the Internet space.

Now, I represent hardware, software, services, a lot of people in the high-tech world. The Internet space is the most competitive part. In some of the hardware areas, some of the software areas, you do have these chokepoints. You have locked-in situations. One of the key ingredients in whether market share is something you worry about in the context of monopoly has to do with how embedded it is, how real market power it has in antitrust terminology.

Market share is not the equivalent. I think my friend, Scott Cleland, talks about Google has 80 percent share in the video monopoly. Well, the data he cites, his comp score, using the same data, it shows that other competitors have 197 percent share. So the data in this world can be manipulated and misused, I think, inappropriately.

I make one other last reference over to, again, Scott because I read his testimony before I came here, and I went on to Google Search the other day on Tuesday afternoon, and I put in "mapping direction." And the results I got were one, number one, MapQuest; number two, Yahoo maps; and number three, Google. So if there is a biasing going on, it is hard to see it in that.

So a lot of what we talk about in the Internet space—remember, people are not exclusive users. So I can use a Blackberry and an iPhone. There is a lot of dynamic activity that is going on.

We have been involved in IBM, Intel, AT&T, Microsoft antitrust cases—on the side of stopping major company anticompetitive behavior. If Google or other people become a threat, anticompetitive threats to what I think is a tremendous industry, I am going to be there. It is not there.

I have had several presentations made to me when DoubleClick and AdMob, et cetera, and if you really get in and understand the nature of the industry and the ability of new entrants to come, the ability to click and get away from a Google or a Yahoo or a Microsoft or somebody else, it is not yet, and I am not sure it will be in a situation that you have a real stifling of any real competition.

The barriers to entry just aren't there. They are too easy to have one new, dynamic company. Facebook has just taken over the leadership of the number of people who visit it over Google. I mean, that happened within a period over a year or two. So the dynamic of our part of the industry is great.

But look for lock-in, look for chokepoint, look for people who undertake policies to try to prevent people from leaving the site, to block interoperability, to use intellectual property in an anticompetitive way. Those are the signposts, the signals that you have got a company who is thinking anticompetitively and probably will wind up acting that way.

Mr. JOHNSON. Thank you, sir.

Mr. Reed?

Mr. ISSA. Mr. Chairman, can I ask how long we are going to go on in one round of regular order? I appreciate everyone answering, but we have been almost 20 minutes on your time.

Mr. JOHNSON. Well, I am going to have no further questions. I did think it was important enough to hear from the panelists who wanted to respond. And I do know we have got votes coming up in about 10 or 15 minutes or so, too, so I was thinking we would recess for our votes and then come back and resume the questioning.

Mr. ISSA. Thank you, Mr. Chairman.

Mr. JOHNSON. And certainly, when I eat, I like everyone else to eat, too—even as much as I do—will.

Mr. CONYERS. Mr. Chairman, I would recommend that our friend, Darrell Issa, be allowed, if he chooses, as much time as you have had. [Laughter.]

Well, and then, Mr. Issa is usually quite economical with his time, being a great businessman. Actually, I am hoping that some of the questions, or the question that I have asked, will kind of narrow the field a little bit so that we won't have to have 20, 25 minutes of questions, but——

Mr. ISSA. Thank you both, Mr. Chairman.

Mr. JOHNSON. Thank you.

Mr. REED. I promise to keep my comments very short. It was a great discussion here between the academic and the practical and the rest, and I learned a lot about antitrust there. But one of the things that I thought was interesting about Mr. Black's comments about the ability to innovate on the Internet, and I go back to the line from "The President's Men"—follow the money.

So as we have this discussion about all the slogans that we heard from Professor Manne and Mark Cooper's testimony about what it all means, I think when you ask the question of is the Internet dynamic, it certainly is. But you ought to look at how it is getting paid. And then that brings us to the interesting question about the MapQuest point.

Mr. Black brought up the point that he searched for the words "mapping direction." Now, I don't know if those were words that the first results he saw were they paid for words or they were the words that came in Search. It doesn't matter. But most of us when we search, we actually search for the address we are going for. And the interesting about the ad word is that is what gets us into how do we pay for the Internet.

So I certainly don't have the expertise of the antitrust lawyers here at the table, but I do know that my members, the development community, we follow the money.

Mr. JOHNSON. Thank you.

Now I will turn to Mr. Coble for questions.

Mr. COBLE. Mr. Chairman, thank you again for your earlier courtesy to permit me to go to the dermatologist. When I got over there, I was sort of hoping you had declined my request, but it worked out okay.

Mr. JOHNSON. Well, I am hoping that my graciousness to you will inure to my benefit in the eyes of Mr. Issa as well. [Laughter.]

Mr. COBLE. Yes, I don't want to be in Mr. Issa's doghouse.

But it is good to have the panel of witnesses before us as well.

Mr. Feinstein, to what extent, if any, do the antitrust agencies take into account patents, trademarks and copyright claims into their antitrust analysis of transactions and conduct (a), and do privacy concerns ever factor into an antitrust analysis, or does the agency look at IP and privacy concerns as distinct issues separate and apart from their antitrust analysis?

Mr. FEINSTEIN. Let me address that in two parts, since the question was posed in two parts.

Mr. COBLE. Sure.

Mr. FEINSTEIN. Focusing first on patents and intellectual property, that portion of the question, we absolutely take that into account in our antitrust analysis, and it cuts across a great deal of what we do. It is obviously paramount in the pharmaceutical sector, and it is very important in this sector as well.

And as I mentioned in my earlier remarks, you know, we perceive—I perceive, and I am only speaking for myself here, I guess, but I perceive the goals of, you know, the patent laws and the goals of the antitrust laws to be fundamentally consistent, which is to stimulate innovation and to stimulate competition.

And one of the ways that the patent laws do that, of course, is to provide a period of exclusivity. That doesn't necessarily equate to a monopoly in antitrust terms, because there can be another patented product or process that competes. But there is also an endpoint to that exclusivity, and that in itself stimulates further innovation, if the system is working properly. But we definitely take those things into account.

Mr. COBLE. Okay, right.

Mr. FEINSTEIN. Now, with respect to privacy, I am going to focus on that really from the antitrust perspective rather than from the consumer protection perspective. That is a different bureau of our commission, and, you know, there are a lot of initiatives under way regarding the general question of privacy, particularly with respect to the Internet, but I am going to give a narrower response, which is the relationship between privacy and antitrust.

And candidly, I think it is a relatively limited relationship. It is certainly not—it is important, but if there were, for example, in a proposed merger between two firms that competed on a number of levels, and one of the levels in which they competed were their approaches to privacy—Firm A offered certain safeguards regarding consumer privacy; Firm B offered a different set of safeguards, and they were competing with each other not just in terms of price but

this sort of non-price competition regarding their approach to privacy—if they were merging, and that degree of competition were being eliminated, I think it would be relevant for us to consider that.

Mr. COBLE. Okay. Thank you, sir.

Mr. Manne, the pace of innovation is rapidly accelerating. Companies that invest in innovation succeed; those that do not often fall behind. Is it a disincentive to innovation if government legal systems, particularly in Europe, force companies that make often risky initial investments to hand over their innovations to competitors, who oftentimes choose not to invest?

Mr. MANNE. I think the short answer is yes. I think that the risk of compulsory licensing and other sorts of activities that might force companies that have innovated and invested enormous amounts in developing intellectual capital to share that intellectual capital with their competitors is—does an enormous disservice to innovation. I think we have seen that with respect to Microsoft and other companies in Europe, as you pointed out.

I think that this follows on your question to Rich—to Mr. Feinstein about the consideration of intellectual property in antitrust. Fundamentally, the area in which this problem arises is where there is intellectual property and as a remedy or through the course of some sort of enforcement action, the company is required to share its intellectual property with another company.

And I think that it is probably a core problem that intellectual property is an essential part of the incentivizing of innovation, and the forced sharing of that with competitors can only diminish that incentive.

Mr. COBLE. Thank you, sir.

Mr. Chairman, I see the red light, but I have one brief question additionally.

Mr. JOHNSON. Certainly.

Mr. COBLE. Mr. Reed, is ACT supportive of quality control measures in app stores like Apple's that can be used to eliminate applications that use pirated intellectual property?

Mr. REED. I think I got the last of it, but absolutely our membership has no problem with quality controls in application stores that help provide a better platform.

For those of you who have played with an iPhone or have seen the Droid or some of the new technologies, the user interface, how you interact with it is key. I mean, let us face it. It has got a huge cool factor. We have all seen it on the television ads. The way that they reach out to people is about saying, look, this is a product that you integrate into your life.

What you don't want to integrate into your life is something that loses its battery, breaks, crashes, won't make a phone call. So absolutely our membership understands that there is some benefit, some huge benefit for their ability to reach customers, if the customers have a sense of comfort that the machine will continue to provide great things you can integrate into your life, but also can make a phone call.

Mr. COBLE. I thank you.

Thank you, Mr. Chairman. I yield back.

Mr. JOHNSON. Thank you.

And I will now turn to the speaker—excuse me, the Chairman of the Committee, Mr. John Conyers.

Mr. CONYERS. Thank you.

Mr. Morgan Reed, you told us that there were several critical issues on the horizon and that you hope the Committee would attend to them. What are they?

Mr. REED. Well, as we talked, the big issue of the table, of course, is a question about what will happen with Google's purchase of ITA. There are some smaller companies that are involved—Kayak. Although it has some risk-taking backers, it is a small company based in Connecticut with about, I think, 90 employees. It is small. There is Mobissimo.

So there are several mobile apps makers, who are concerned about what the outcome of the ITA merger means for them. Kayak has been incredibly successful and growing fast, so obviously they have some concerns.

I think the other areas that we touched on a little bit with Mr. Coble is making sure that we have protection for intellectual property as we move forward. Even within the antitrust realm, IP is absolutely essential to small tech companies.

One of the best ways that IP is valuable to us is we get bought. I mean, in one sense I am happy for the ITA folks, because they have a chance to get money and buy themselves a sailboat. And unfortunately, most entrepreneurs don't retire. But on the other hand, that only floats from the patents and intellectual property that they have. So as we move forward, I think we need to remember that IP protection is critical. And so we are concerned about that.

And then last, but not least, we do worry a little bit about copyright in the sense that for our membership, especially those who do paid applications, copyright is their stock in trade—that plus trade secrets. But a lot of times we are writing applications for others, who create their own content—the New York Times, Washington Post or HufPo, Wall Street Journal. They all have content on the Web.

Now, they are brilliant reporters, but I have yet to meet a reporter who is an amazing programmer. So the programmers hire us to write the applications for them. So long as the content industry is able to make a living and so long as their content is protected, I have an opportunity to get a job to write the application that goes on the iPhone or the Android or the Windows Phone 7.

So absolutely, we have a symbiotic relationship with the copyright industry, because we want to facilitate their access to users.

Mr. CONYERS. Do others have——

Mr. Black, you wanted to add to this discussion.

Mr. BLACK. Yes, I would love to weigh in on that, because intellectual property for all my members, from hardware, software, services, is something they all value—patents, copyright, trademark. At the same time, we have come to understand that as important as IP is, when we deal in the competition space, it is very critical to respect the boundaries of IP.

IP does not—should not trump competition policy, as I think the FTC made clear. The goal of both is to help promote innovation, so it is worth doing an analysis of the way in which in the modern,

very changing and dynamic Internet space, the way in which copyrights and patents are in fact being used.

The Congress has, and your Committee last Congress passed an excellent patent reform legislation, which I think recognized that as important as patents are, the system can nevertheless malfunction. We have similar malfunctions going on with the way the copyright system operates.

So it is very important to respect IP, but we need to recalibrate how it operates in a very dynamic, changing space. And I think that is actually—and many of those issues really do touch on the borderline of competition policy. And we haven't, I don't think, frankly, grappled with it very well at all.

Mr. CONYERS. Scott Cleland?

Mr. CLELAND. Markets—free markets—can't operate without really good property rights. And, you know, competition needs property rights and people respecting them for it to work. And every now and then a bad actor comes along and uses innovation as a shield. Google says innovation without permission.

Well, what you have got is let us do a real quick review. Twelve million books were copied illegally in the Google book settlement, and they are being sued by the publisher. Viacom sued Google YouTube for hundreds of thousands of videos that were copyright violations. Apple is suing HTC Google over the iPhone. Oracle is suing Google over their patents for the Android. Rosetta Stone is soothing them over trademark.

There is a bad actor out there that is looking and not using intellectual property rights like other people, just like they do in privacy. So privacy and intellectual property can be anticompetitive in the hands of a bad actor, who is a serial offender of intellectual property rights or privacy.

Mr. CONYERS. Mark Cooper?

Mr. COOPER. Mr. Conyers, I want to go to an example that has been mentioned three or four times, which is the newspaper industry. And this is why you really do have to look hard at the facts as opposed to the slogan.

If you look at the newspaper industry, 60 percent of their lost revenue is in classified—that is, Craigslist, monster.com, E-bay as a two-sided market where people sell used things. Another 20 percent of their revenue has been lost to cable operators and to weekly journals.

The overwhelming majority of their lost revenue is to more efficient advertisers, more efficient people who create audiences more efficiently than the newspapers do. It has nothing to do with the stealing or of copyrighted content. It has to do with the creation in digital space of entities that can more efficiently aggregate audiences.

And so I agree that we need a balanced view of copyright and intellectual property, but to suggest that copyright cannot get out of hand, that patents cannot become anticompetitive goes too far in the wrong direction. And if we look at each of these industries, look at the facts, and newspapers is the most important one, we will discover a much more complex and nuanced reality.

Mr. CONYERS. Edward Black, is there any therapy for this anti-Google sentiment that we are hearing so much about this morning?

Mr. BLACK. Well, the world that is created by the Google—I mean, I just wish there—I mean, if Google came up with a cure for cancer, I am sure Scott would find a reason that that is bad for society.

Mr. CONYERS. He shook his head. He would not.

Mr. BLACK. Yes. It is just our world is so much more complex. We have so many competitors, so many companies. The kind of behavior, again, that we have seen in all of the major antitrust cases that were important to our industry showed an inclination to lock people in, to block interoperability, to prevent openness. Those are all things that are, frankly, contrary to the way Google is operated.

Do they have a presence that is big? Do they have a great reputation that people would love to tear down? Yes. And that gives them some real presence. But I consider it very fragile and in that sense is not established and locked in the way that IBM hardware, the way Intel on chips, the way Microsoft in operating systems have built that strength. It just does not present the image that—I mean, I feel like I am Lewis Carroll, Alice in Wonderland when I hear the Internet described by some people. It just isn't the way the Internet is operated.

Mr. CONYERS. Well, Director Feinstein, Scott Cleland has called off several lists of offenses and invited us to consider prosecuting. Doesn't this have any effect on the way you look at the situation with Google?

Mr. FEINSTEIN. Well, we are certainly very much aware of Google's presence in many markets that are the subject of this hearing today. With respect to the ITA matter in particular, that is the one that I think it is a matter of public record that is being looked at by the Justice Department, so it wouldn't be appropriate for me to get into that specifically.

I did, of course, touch on our investigation and ultimate decision not to challenge the Google-AdMob transaction earlier this year. But so just taking a step back, and I don't view it as, frankly, our role to sort of be focused on bashing any particular company; our role is to promote competition for the benefit of consumers and to address clogs on competition where we find them, but, you know, if you sort of take a step back, for better or for worse, you know, what we have seen with Google over the last decade is, you know, kind of a textbook example of what this whole hearing is about.

You know, we have gone from a couple of guys in a garage, so to speak, which somebody alluded to earlier, to, you know, a firm that is now the target of a lot of challenges and a lot of investigations. And that is perhaps, you know, a very compelling example of how things can change quickly.

Now, when we are doing an investigation, you know, we have—and, of course, we try to act quickly, because things develop in, you know, almost literally in real time; that happened in our Google-AdMob matter—but we do have the advantage of not just sort of observing from the outside.

We have the ability to get into the company's internal decision-making. We have the ability to review their documents and to put their people under oath and try to understand what their incentives are, what their ability to act on those incentives may be to the extent that they may have anticompetitive goals in mind.

And that doesn't mean we are always right 100 percent of the time, but we do have at least the ability, I think, to as quickly as we can come up to speed from a variety of viewpoints.

Mr. CONYERS. Well, Mr. Chairman, this is the first of a series of hearings. Somewhere along the line we are going to have to consider the wave of mergers that have become a pattern in our economy for the last two decades at least. And that has some significance and importance about it. I want to put that on the table.

And don't you feel, Mr. Director, that the loss of privacy—we are now subject to an incredible array of invasions of everybody, not just citizens, but government alike. Does this present some new challenge that we have got to get our arms around?

Mr. FEINSTEIN. I absolutely agree with you that the value of privacy is paramount, and it is an issue that the commission is grappling with as we speak.

But it is being done primarily from a consumer protection standpoint rather than specifically the antitrust perspective. They are not mutually exclusive, as I explained in one of my earlier answers, but that is an issue that the commission as a whole and certainly the director Of the Bureau of Consumer Protection are thinking about very hard.

And they have also brought a number of actions, I think, to challenge the misuse of information that was supposed to be kept private. But it absolutely is a very important issue for the FTC.

Mr. CONYERS. Mark Cooper?

Mr. COOPER. Mr. Chairman, I want to reinforce the two points that the director has made. First, privacy is a tremendously important issue, very much a digital age issue, because digital technologies allow for gathering, aggregation and processing of a massive amount of information.

But second of all, it really isn't an antitrust issue. And there are differences of opinion about this, but if you try and do privacy in these merger cases as an antitrust issue, you confront the problem that the natural solution to a competitive advantage gained by having a lot of personal information would be to share it. I mean, that is the solution we frequently give about most favored nation access to whatever asset is—we think is—rendering a competitive advantage to a dominant firm.

And so the simple fact of the matter is that when you play out the remedy for privacy problems in the context of mergers and antitrust, I think you end up in the wrong place. So that means it is even more important for the agency to deal with privacy as a consumer protection issue. And it has been languishing for a decade, and it is now clear the public want it. It is time to do it, and now is the time to move forward on the privacy issue.

Mr. JOHNSON. Thank you.

Mr. ISSA. Mr. Chairman, due to the hour, I would ask that I tee up a thought and then we set a time to come back, if that is okay with the Chairman.

Mr. JOHNSON. Mr. Issa is normally not high maintenance. [Laughter.]

Mr. ISSA. I will be incredibly low maintenance.

Mr. Chairman, I would only say that when we return, my line of questioning will beg all these witnesses—will they tell us not

that we should have inaction, but among the various actions we could take on antitrust, intellectual property reform and the like, which ones we should begin looking at on a bipartisan basis? Because I think we all recognize that they disagree maybe on some parts of the problem, but our jurisdiction is not to second-guess antitrust. Our jurisdiction is to write antitrust law. Our jurisdiction is to write IP law.

So I am hoping that becomes the subject that they are prepared to answer when we get back—and after you have enjoyed your lunch.

Mr. JOHNSON. Well, your segue is quite creative.

Mr. ISSA. Thank you, Mr. Chairman.

Mr. JOHNSON. No need for an opening statement, then, for you. [Laughter.]

You will just come back and ask questions.

Mr. ISSA. You got it.

Mr. JOHNSON. All right. Thank you, sir.

We have got three votes, and it will take us about 15, 20 minutes to go vote, come back over.

Mr. ISSA. 12:30?

Mr. JOHNSON. And Mr. Issa is trying to take a lunch break on us. [Laughter.]

I don't think we are going to——

Mr. ISSA. I will come sooner, if you do, Mr. Chairman.

Mr. JOHNSON. Yes, I think we will come right back after votes and let the witnesses—they don't need that much time to respond. I think we can——

Mr. ISSA. Mr. Chairman, you don't know how long the lunch hour wait is when they try to get something in our cafeteria.

Mr. JOHNSON. Well, we want to try to get them out before the cafeteria closes. [Laughter.]

Thank you. We will recess and be right back.

[Recess.]

Mr. JOHNSON. All right. We will go back into session now.

And, Mr. Issa?

Mr. ISSA. Thank you, Mr. Chairman.

I hope my questions were worth waiting for. Or as Henry Kissinger said during the height of Watergate, I hope you have questions for my answers. As I go down the list, let us start with our regulator here.

Mr. Feinstein, do you today believe you have the tools you need, no matter what the market unfairness is. In other words do you have solutions for each problem? Even if you don't accept some of the problems here today, if they become problems, do you have the tools?

Mr. FEINSTEIN. The short answer to that question, sir, is yes, we believe we do. The thrust of the commission's testimony today is that the antitrust laws are written sufficiently flexibly to enable us to address competitive problems in dynamic markets, and we think that our track record is consistent with that.

Mr. ISSA. Is the Hart-Scott-Rodino process broad enough in what it envisions and what you get to interpret to deal with some of the problems here today, if you believed in the future, let us say based on various experience, we allow something through and then in ret-

rospect say that wasn't a good idea? Will you have the flexibility to make those decisions differently than the past? Because for a long time, I think we all agree it has been fairly pro forma unless a company was sort of on the front page and another company on the front page were suing them.

Mr. FEINSTEIN. Are you asking if the Hart-Scott-Rodino process itself is sufficient? I just want to make sure I am clear on the question.

Mr. ISSA. You know, as I said before the break, I want to talk about statutory tools that we are giving you, the things that are purely within this Committee, not the judgment of whether you all are doing a good job or whether there is an emerging, but do you have the tools? So that was why I chose that, having gone through the process in my own company several times.

Mr. FEINSTEIN. Sure. Well, as you know, that process is a premerger notification obligation with respect to deals of a certain size between parties of a certain size. And, you know, from time to time there have been adjustments to some of the thresholds of reportability. But as a general proposition, I think that system is working pretty well.

We are in the process right now of making some adjustments to sort of—we propose some adjustments to the types of information that would be produced, and we are trying to in some respects streamline the reporting process and also make sure that we are getting what we need.

Now, there are, of course, transactions that for one reason or another aren't reportable, and sometimes those are investigated and challenged after they have been consummated.

And then, of course, there is the whole body of antitrust law that applies to conduct matters rather than mergers at all, such as the Intel case, which is necessarily somewhat less forward-looking, because the conduct has already occurred.

With mergers, of course, if it is a non-consummated merger, you are trying to make a prediction about the likely competitive effects.

Mr. ISSA. Okay. And I would say that organic growth, nobody in the dais is going to fault you for the fact that it is a slow process to determine the threshold where mergers—it is a pending question, and hopefully, it is answered in a timely fashion.

Let me go through the intellectual property, which all of you touched on to a greater or lesser extent. This body sets not just what is protectable, but we set timelines. A few years before I came, the wisdom of this organization was to retroactively extend both patents that were in process when they went from 17 to 20. They actually added a year, year and a half to some patents retroactively, and people had to pay for them.

We made Mickey Mouse not expire, even though it was decades old—black-and-white Mickey Mouse, by the way, not expire. So we have retroactively given value by lengthening IP. Do you today, as my core question for all of you—which won't take more than 20 minutes, Mr. Chairman, to answer——

Do you believe that we should look at——

Mr. JOHNSON. So noted.

Mr. ISSA. Thank you, Mr. Chairman.

Do you think we should change or consider changing, on a very strategic, well-thought-out basis, certain IP expirations? And a good example would be when should DOS 3.0 lose its exclusivity of copyright? When should the Linux people be able to look at a portfolio of no longer used or abandoned software and bring it into their consideration? When should an Apple app stop being—the code being pretty to understand, but when in fact could you should be able to just grab that code like an icon and throw it into something?

That is my real question, because I am looking at innovation and barriers to entry. And sometimes copyright with a very long time to run is one of those barriers that we have the authority to change and perhaps speed up innovation.

I will go right down the list as you see fit.

Mr. JOHNSON. And, Mr. Issa, you said that the answers would not take 20 minutes, but you did not say your question would not take 20 minutes.

Mr. ISSA. Yes, more or less, Mr. Chairman. But that is all for my question.

Mr. JOHNSON. All right. Thank you.

Mr. FEINSTEIN. I guess I will take the first shot at that, and I can promise that this answer will not be 20 minutes. It might not even be 20 seconds.

That strikes me as an area that would be well worth consideration, but I don't know the answer. And it is not one that the commission certainly has taken a position on formally—that is, whether some of these timeframes should be adjusted.

But I think you are exactly right that we want to find the right balance between stimulating innovation and minimizing entry barriers that stifle future innovation in some sense and also stifle competition. But what the right number might be I don't know.

Mr. ISSA. Thank you.

And, Mr. Black, as I said, I will allow you to say some of your members are on one side and some are on another side of the answer.

Mr. BLACK. Well, in fact, I think there is a pretty broad consensus that the IP laws, which, you know, the same copyright laws will cover a song by Lady Gaga and a critically important——

Mr. ISSA. Please, use Frank Sinatra. [Laughter.]

Mr. BLACK [continuing]. Software that runs a—or industry, and, yes, so I think some differential treatment.

And I think when in my testimony I talked about cost-benefit analysis of IP, it is exactly that. There is certainly some benefit that can come from giving IP rights to promote a certain category innovation, but it is somewhat of a zero-sum game. You interfere with the market and you interfere, if you will, with free speech on the other side when you take a certain kind of activity and say now it is protected by IP.

The copyright terms are frankly, you know, can be over 100 years easily, which in a world of Internet with documents and things going around, it creates litigation tales that can tie up the Internet. So I think looking at that is very important.

Patents same issue—and in patent legislation we have actually said that different industries may well need some differential treat-

ment, because the way the system works in the real world with different industries, for the pharmaceuticals, is very different than the way it works for hardware industry.

So a review of IP law—not to eliminate IP law; it is critical we have IP—but to recognize that in a complex world we have made one suit try to fit many, many different players. And it is not working well. It is having a lot of anti-innovation and anticompetitive impacts.

Mr. ISSA. Thank you.

Mr. Reed?

Mr. REED. Interestingly enough, I think that the question of copyright as it applies to software in this instance is a little bit of a misnomer because of something that you said. You said when should DOS—when should that copyright come up? When is the last time anyone has actually used DOS? I mean, that is the interesting part of this question and why patents become very important, but——

Mr. ISSA. But my question was not using DOS. A hundred percent of the lines of code, the thought, every part of that, if it were open source, any portion of it could be used.

Mr. REED. Sure. And as somebody who has actually developed on some of the—some Linux applications, what is interesting about it is what protects you as a developer of software that is not open source is actually more of trade secret than true copyright, because as we have seen time and time again, you have to do a little bit more than change the name of the variable.

But realistically, you can make something that works alike, run alike, functions alike. Anyone who looks at the iPhone apps know that there are hundreds of apps that are essentially identical to each other. There are so many that in fact it is becoming an area of debate.

So copyright in and of itself is not the strong arm of pushing innovation forward. In fact, it is one of the reasons why we looked at——

Mr. ISSA [continuing]. The case, then why protect it for 75 years beyond the life of the author?

Mr. REED. I think that the rest of the fundamental structure of the copyright industry, and I use the term broadly because it covers so many things——

Mr. ISSA. Now, Mr. Black was very quick to say we would have to parse it by industries and types of use, which we can do. We are funny like that. We have the authority.

Mr. REED. I am well aware of the jurisdiction of the Committee. I think at this point in time I would reserve judgment, because I would have to see what the legislation looks like. It is easy to be glib and say, "Sure, we should just chop up the pie in all these pieces." But I think we all know the devil will be in the details, just as it was in the Mickey Mouse decision, which was an interesting—which is an interesting come about.

But I think the more important question is something that you know a lot about—is that we need to improve the quality of software patents and patents in general for a major reason.

We know copyright isn't the strong arm to help us get innovation. But what we know from it is the more that I am protected

by a quality software patent, the more I can share, the less I have to depend on trade secret—and frankly, the less I have to depend on the 75-year extension on my copyright.

So in that sense I think we need to look—we need to look at other ways to make sure that software is encouraging——

Mr. ISSA. Thank you.

Mr. Cleland?

Mr. CLELAND. Yes, I have a very, very strong bias for the Constitution, and the Constitution gives property rights, you know, constitutional basis. And so, you know, my view is, you know, respect property rights. And if you are in a gray area, side with property right. That is where the Constitution is, and that has proven to work real well.

I also will add a comment that there are many out there that have taken the word "innovation" to mean let us not look at property right. It is a way of kind of getting around property right.

And there is, you know, the free culture movement of Lawrence Lessig and many others, the open source movement, who basically think "I don't think it should be copyrighted software." I strongly disagree with that, because what you are doing is you are creating what they say—isn't information common?

And that is, you know, as I said in my testimony, that is death long-term for economic growth or real innovation, for jobs, for the economy, for property. If people go around and say, "Well, we don't like the Constitution, because it protects property. You know, this tech stuff changes everything, and we should just mash it all up and remix it and innovate like they do in, you know, in Silicon Valley and those people who have that view."

So I am very, very suspicious of people that say there shouldn't be any property rights in technology, because it has proven to work very, very well.

Mr. ISSA. As a holder of 37 patents, trust me, I will debate the time. I will not debate the right under the Constitution, except on your side.

Mr. Manne?

Mr. MANNE. Remarkably, I think I agree with everything that Scott just said. [Laughter.]

Mr. ISSA. We can move on to Mr. Cooper. [Laughter.]

Mr. MANNE. I would say in response to your suggestion about the possible tailoring of the length of patents and copyrights in particular industries, please don't micromanage like that. I think it is a political can of worms. Industrial policy rarely worked. I think it would be almost inevitably a—a process that would result in an outcome that is far worse than intended and far worse than what we have now.

That doesn't mean that I think that the specific term of patents that we have today in copyright is somehow optimal and absolute. And it is always worth considering whether we can do better, but doing better by tailoring those—those lengths and the various terms that go along with them to particular industries, I cannot imagine that functioning in the way that we would like to see it functioning, if we tried it.

If you want, you know, a couple of suggestions that I think would be feasible to do, that I think would be helpful——

Mr. ISSA. Just bear in mind that if you design an original dress, you are not even entitled to a patent in America. So we do tailor by industries. The French give 3 years. We give zero.

So one of the challenges is we start off on this side of the dais knowing that we have already picked winners and losers in lengths. The only question really is are they somehow inherently flawed? And if not, we would love to leave them alone as much as you would like to.

Mr. Cooper, you get the last of my 20 minutes.

Mr. COOPER. Interestingly, the founding fathers hated monopoly, and they only granted the Congress the right to create an intellectual property monopoly grudgingly and for a specific purpose. And the purpose was intellectual property was supposed to be an incentive to create. It was not supposed to create a monopoly of indolence. And that is the balance that I think you are concerned about.

I would suggest that given the immense fluidity, the huge market created in the digital space, you could be shortening these copyrights. If you have an idea and you cannot produce a stream of income in a shorter period of time, then given this immense opportunity, maybe it is time to put it into the public domain, as Jefferson thought. That is a general idea.

On the other hand, picking winners and losers and picking timeframes requires a fairly sophisticated analysis of how long it takes to invent and recover. I would suggest you might look at other issues and help the antitrust authorities by looking at things like the holdup problem, the harm and intent of the copyright, how it is being used. Author and work—we are struggling to figure out author and work in books, and you have made a point that there is a——

Mr. ISSA. Mr. Cleland noted a rather large lawsuit related to one man's interpretation of author and work.

Mr. COOPER. Yes, no, and frankly, my suggestion was that the folks who were scanning those should have held them back for 5 years to put pressure on you folks to deal with it, to give the authors time to come out of the woodwork.

So I would look to ways to sharpen the tool that the antitrust authorities have. Of course, we know that mucking with monopoly privilege is a very, very dicey business. And the founding fathers really did not want to go there.

Mr. ISSA. Thank you.

Thank you for your courtesy, Mr. Chairman. This was insightful for me, and I hope for the rest of you. Yield back.

Mr. JOHNSON. Well, thank you, Mr. Issa. And I think it is a intriguing issue that you have raised. Perhaps some would argue that it is outside of the scope of competition policy, but I think it could be argued that this issue could have some bearing on competition policy.

Mr. ISSA. Mr. Chairman, if I can note, many years ago I had an IndyCar team for my Viper security product, and at that time Penske was dominating the field. And the one thing we knew about Roger Penske is he sat on the board that did the rules. And whatever gave him an advantage seemed to be within the rules, but not

evident. And the next year when it was evident, we had a change of rules.

Now, "majority" rules is said a lot around here but, trust me, he who writes the rules also rules. So I view competition as are the rules understandable? Are they fair? Are they consistent? Can they be predicted? And that is why I asked the question.

My theory is, yes, we may have to change the rules, but if we don't change the rules, then inherently the Federal Trade Commission and the courts will constantly be dealing with how do they deal with the side effects if the rules are not promoting innovation and limiting monopolistic power inherently?

All companies, including my own, will seek to be monopoly. They will seek to get that premium. They can't help themselves, because it is more profitable to be a monopoly.

So although you are right, it is outside the general scope of what was on today, it is exactly where I think we have to chase the rabbit down the hole to get to the real problem that monopoly building is because of the system that allows monopoly building and a profit margin that encourages it. And that is where I think you and I can really work together in the coming Congress.

Mr. JOHNSON. Well, I don't think that we should be afraid to go down the hole, as you say, if you are likening it to going down a hole. I don't think we should be afraid of that, and I do think there are so many views and so many ways to slice that loaf of bread in an intellectual fashion that perhaps we could see value in moving forward in that way. So we will take a look at it.

Of course, the overall issue is probably outside of the scope of this Subcommittee, but we butt up against these kinds of intellectual property issues so much in competition policy.

And so having said that, I will ask for questions now from, if there are any, from my colleague, Mr. Gonzalez, from Texas.

Mr. GONZALEZ. Thank you very much, Mr. Chairman. My apologies to you, my colleagues and to the witnesses.

Obviously, there is more than just one thing occurring at any one time on the Hill, and I was not here for the benefit of your testimony, and so if I cover something that has already been asked or you covered in your testimony, again, I apologize. I know my staff is here, and they are going to be happy to point that out later after my questioning and such.

But there were some comments made when I was in attendance. One of them was, and I am trying—economic content or I don't know if that was economic impact or whatever. Has it reached a certain point? What is going on out there in this new world of commerce?

But it all comes down to the sale of a product or a service and innovation and how we do things and how the innovation and technology impact this. My own belief is that we don't abandon the established principles that have been there for a very, very long time and have served us well.

There are those that believe that technology, today's technology, presents us with a different set of facts that allows us to abandon those particular principles. It wasn't that long ago, as I remember, that Microsoft was in fact saying, "Look, technology as such—let

the market forces go forward. They are little different than they used to be. And you have to accommodate temporary monopolies."

And that was actually adopted by many individuals. They just figured that technology is moving forward at such a pace that that would normally happen. Now, I did not subscribe to that—and then we have a settlement.

Let me read you from a New York Times article by Paul Krugman, June 6, 2008, in his column, "In 1994 one of those gurus"—making reference to someone that saw what was developing—"Esther Dyson, made a striking prediction that the ease with which digital content can be copied and disseminated would eventually force businesses to sell the result of creative activity cheaply or even give it away. Whatever the product—software, books, music, movies, the cost of creation would have to be recouped indirectly. Business would have to distribute intellectual property free in order to sell services and relationships"—and the most striking sentence—"and we will have to find business and economic models that take this reality into account."

I think that is what all of us are trying to do, and that is to accommodate the changes and such. The interesting thing is, you know, where are we? Who are the gatekeepers? How does modern commerce really conduct it? And you may say, "Well, all this is developing. We don't know exactly." But, I mean, Barnes & Noble will tell you. Borders will tell you. Blockbuster will tell you.

So there has to be something, and it is called profit, and there is going to be different ways of being able to do what we always did with intellectual property, products, services and such that had value. But in this environment it is a little different.

What will be the economic generators that will represent the profit? It is going to be subscriptions. That is one way of doing it. But not everyone can plug into a subscription model, where someone basically pays for whatever they are receiving. The other will be ad revenue. Ad revenue. And this is not going to be a big thing—Google is big and bad and all that thing; they do no evil; they do little evil, or whatever.

The question is why shouldn't the old principles still apply regardless of innovation and such? And haven't we already reached that critical point where this technology has totally changed the way we do business in America? I mean, I know how I shop. It is so different. And I am 65, so you can imagine everybody that is younger.

Anybody believe that technology somehow will force us today to adopt business models that will abandon the traditional principles of monopoly and antitrust? And I want to start with Dr. Cooper.

Mr. COOPER. There are two pieces to that answer. One piece is the business practices that we have observed in a series of cases like Microsoft and Intel are the same old nasty business practices that Rockefeller and the robber barons were dinged for. The anticompetitive business practices have not changed.

The new element in a digital industry, and I talk about it in my testimony, is the technological lever, that a key platform owner has, to undermine potential competitors. That is a new one. Rockefeller could make a deal about rates and disadvantage his competi-

tors, but he couldn't muck with the track so his competitors' cars wouldn't roll.

Microsoft was able to make using Navigator a jolting experience. Comcast was able to undermine the quality of BitTorrent. That technological lever requires closer scrutiny.

But I agree entirely with your basic premise that we have simply entered a new age. Old business models—subscription, a la carte sales—you did mention the most basic one is one off sale. Most of the things in America are bought by a first sale. We buy it and we have it. We have got that in music singles these days. We didn't have that 15 years ago. The music industry sold 1.6 billion singles last year—humongous potential. So that hasn't changed.

What has changed is tremendous reduction in transaction costs, tremendous transformation of the possibility of production. So I agree exactly. The traditional values I call them. Some people say old values. I like to use traditional values. The traditional values that got us from the pre-Industrial Age into the Industrial Age that made the American century in the economy will work just fine in the digital.

Mr. GONZALEZ. Thank you.

And I know my time is up, but I want to give each member of the panel just a minute to just comment. I mean, it is a simple question. I mean, there are really people that believe that we cannot continue as we have since time immemorial with certain legal principles that have assured competition.

Mr. Manne?

Mr. MANNE. Thank you. The distinction that Mark identified between the ability to foreclose competition through non-technological means and technological means is a distinction without a difference. Whether you can foreclose access to the railroad by fiddling with the technology of the railroad or whether you can do it through contracts and pricing doesn't change, in my mind, anything about the way we understand foreclosure and the way our laws of developing economics have developed to understand whether those kinds of practices are pro-or anti-competitive.

Mr. CLELAND. I don't think that, you know, technology should change laws or ethical practices or what is right. I mean, what you are describing is technology determinant, which is if technology enables it, it should happen, it should be allowed.

And there is a lot of things that can be done with innovations that are unethical, illegal or disastrous. And so, you know, innovation—there can be good innovation; there can be bad innovation. And the problem with where the Internet is gone, and that example you said about it allows content to be out there very free—there is an inherent bias for an advertising model.

We would not have a problem in the Internet with advertising right now, had the FTC enforced antitrust law and not allowed Google-DoubleClick to get through. Basically, the FTC tipped Google to a monopoly. They gave them all the users they didn't have, all the advertisers they didn't have, and all the publishers they didn't have. And no one else is even close.

I testified before the Senate on this. All the things I predicted on that of how that would tip them have occurred. That was a seminal decision, and the FTC blew it. I was in. I talked to all the com-

missioners on that. They had a choice to make, and they made it wrong.

And now we are living with the ramifications of that terrible decision, because basically, we aren't having a subscription model and an ad model. What we have right now is a monopoly ad model that is predatorily going after subscription model.

Mr. GONZALEZ. Mr. Reed?

Mr. REED. I would actually agree with Mr. Manne about the difference without a distinction. I think the one change or the one reality we have to recognize in the high-tech era, if we call it anything like that, is that the rules need to be applied equally.

You mentioned earlier cases, and I think what we have to understand is since the door has been opened, since the invitation has been extended for antitrust to be in the business of high-tech, what this Committee and the Justice Department and others need to do is make sure they are applied equally and so that it is not strictly applied to one company with greater force than to another.

Other than that, I think we have to take a very cautious approach to it, but as long as the rules are applied equally, businesses can make intelligent decisions, the FTC can make intelligent decisions about the direction it goes. I think that it is core. It is more about the fairness part of it.

Mr. GONZALEZ. Mr. Black?

Mr. BLACK. Very briefly, fundamentally, antitrust is really about power and the ability to deal with abuse of power by the people who have power. The desire to dominate is human nature. We understand that. We have simply concluded that from a societal standpoint, we want to curb that to some extent, and yet not kill the energy that goes behind the drive to succeed.

But what we face in the high-tech world in many parts of it is that technology has challenged old business models, and we have seen a counter attack by the business models trying to preserve in some cases really obsolete ways of doing business. And a lot of intermediary players, frankly, have been made obsolete, and they are trying to fight back and attack to do it.

And it is a little bit like the horse and buggy makers who tried to stop paved roads from coming in the way. It doesn't mean the new way is necessarily better. I think maybe it is, but it really is inevitable that we will have a digital and global marketplace, and we have got to deal with it in a realistic way.

And old models may have made certain players happy, but we need to find new business models, and they are being created. And it is not as simple as subscription versus, you know, ad. I think there are going to be a lot of hybrid variations of how to do business here, and we do want to let experimentation take place.

We don't want to say right off the bat—I mean, advertising on the Internet as a very active part of funding is relatively new. We are not talking about decades. We are talking about a much smaller timeframe. So we need to let things play out.

At the same time we have always been committed that when we see a real chokepoint, when we see artificial barriers being created, when we see players who have a lot of power making conscious efforts to in effect block people, then that takes some extra scrutiny, if not real action.

Mr. GONZALEZ. Thank you.

Mr. Feinstein? If you can get a little closer——

Mr. FEINSTEIN. I am going to decline Mr. Cleland's implicit invitation to revisit the DoubleClick decision, which in any event preceded my time at the FTC.

But I do want to answer your question by saying that there is no question that business models are evolving. There is no question that technology is evolving very rapidly. And our challenge is to make sure that we understand these developments.

You know, we have very talented people, both lawyers and economists, and who specialize to some degree across the bureau of competition and in high-tech markets. And so we are, you know, we are—and there is a sense in which we are all playing catch-up ball in terms of the facts and understanding the models.

But I don't think we need to change the legal mechanism that exists under the antitrust laws to address problems that the new models or the new technology may bring to bear.

Mr. GONZALEZ. Thank you very much.

Thank you for your patience, Mr. Chairman.

Mr. JOHNSON. Thank you.

Next we will hear from Mr. Polis.

Mr. POLIS. Thank you so much, Mr. Chairman, and what an important panel, and a fascinating panel as well.

I will have a few comments to start. There is a couple of areas I want to get into. During the earlier part of the panel, I was trying to look up some viewership figures. There was some testimony, I think, from the panel, and Mr. Cleland was somewhat alarming about this television aggregation that was being lobbed toward Google.

And I looked at the World Cup viewership figures, about 715 million viewers worldwide. Of those, on YouTube were about 239,000. So that was a market share of—the little calculator on my laptop had a negative four exponent, which was I couldn't figure out what that meant. Then I went on Excel and put out the—I am not a math guy—so it is actually .0003 or .03 percent of the World Cup viewers viewed it on YouTube.

So now maybe that is due to a marketing failure of World Cup to look at some of those new media outlets, but I think what it shows is that much of the viewership and much of the media content is still delivered over legacy mechanisms. And obviously, this hearing is not about ABC, which broadcast the final game of the World Cup in the United States, which attracted some major subset of those 715 million viewers, but it is about in part the company that owns the venue that allowed for 239,000 people to view it.

One of the critical components of all the content, the content that is on YouTube and other user generated sites, is that the copyright is retained by the creator of the content, and it is very simple for the creator of the content to take it off of YouTube and put it somewhere else. Insofar as YouTube has a business model, it generally is aligned with working out some type of revenue share with regard to the rights that may or may not involve exclusivity.

Certainly, if looking down the road we saw some monopolization of content right with one particular outlet, I think that would be

of antitrust concern. But I am not so sure that with regard to the delivery mechanism separated from the content rights, there is nearly as much concern.

Before I get to the next question, I would like Mr. Black specifically to comment on that, as well as comment on the switching costs, which I think could very well be in this equation as well, if somehow an outlet made it more difficult to switch your content that you own to another outlet or for a user to switch to another outlet. That also could be of issue.

But I would like to see if Mr. Black would like to address that. I will give Mr. Cleland a chance as well.

Mr. BLACK. Well, the whole concept of switching costs is a very important, I think, consideration in antitrust law in general and deserves a lot of scrutiny. Keep in mind that antitrust cases, the real major cases that have been brought, and the Supreme Court has repeatedly said are fact-based, and the facts of really getting into deep analysis of what is involved, what are the barriers to entry, what are the obstacles for switching become a critical part.

In my testimony I talked about the IBM case and the deep integration into an enterprise's operations of the mainframe and the problems that caused in terms of the ability to switch. The use of intellectual property——

Mr. POLIS. On that real quickly with the gray—do you see any of those warning signs about the strategic direction of Google causing difficulty to switch among their users, or do you think those warning signs are absent?

Mr. BLACK. No, I really see—frankly, of pending cases, I see the Comcast merger—a much greater focus should be given to that and a concern than I do with other things going on on the Web.

There you have established entity, which has a major, you know, dominant duopoly role in terms of audience united in general, the commercial content industry is fairly concentrated. And so that merger, although we have not yet—yet—directly involved ourselves in that proceeding, we have a lot of questions that are being asked, among our membership about whether or not—how that would play out.

I think it raises very serious questions, and that merger would clearly have impact in consolidation and choice of content programming. It is hard to predict all the implications, but it raises the possibility of abuse in a variety of ways.

Mr. POLIS. Before I actually get to Mr. Cleland, just a quick question for Mr. Feinstein on this.

Is your ability to look at switching costs—is that something that you sufficiently have, feel you have, under statute with regard to analyzing the competitive situation in various industries?

Mr. FEINSTEIN. I believe that it is, and it is absolutely something that we look at very closely when we are conducting investigations.

Mr. POLIS. Great.

Let me give Mr. Cleland a quick chance to respond, and then I want to get onto——

Mr. CLELAND. Yes, to personally address your World Cup point, thank goodness we do have copyright, and people do respect it. And the only way to produce something like the World Cup or produce

high-quality content is to have a business model that can reap the benefits.

I did an interesting math on on my blog last night. Google sent 16,425,000,000 ads a year, according to their calculations. They make one-sixth of one penny per ad. So no one else is going to make much money other than Google in that model, when you do the math.

Now, to get to your question, I most respectfully disagree with the one click away view about the user and there is no sticky. That is a false direction of the way that they try and frame it. Consumers are not the consumer here. Users are not. Users are the product. The consumer or customer that pays all of the freight for Google, all of the freight, the $26 billion a year, are advertisers and publishers. They are the consumer. They are the customer.

The problem—and I came up with a term to explain this in the Senate—is there is an Internet content paradox. Users, who are the consumer here, have almost infinite choice to get the content. However, on the other side, suppliers, in reaching all users, have a bottleneck. If you are an advertiser and you want to reach the Internet audience, you have got Google and then you have got Microsoft and Yahoo. And, you know, it is 75 percent of the audience versus the rest.

And every advertiser has decided with their feet. They are going, "Well, I want to get to all the customers. I want to get all the people who will pay me so that I can produce content." So the switching cost, in order to do it fairly and accurately in this business model, you must look at the switching cost for a consumer advertiser, a consumer publisher. And those switching costs are extraordinarily high.

Mr. POLIS. If I can just real briefly follow up with that, Mr. Chairman, can I have about 2 more minutes or so? Oh, thank you so much.

The most popular YouTube video is a Justin Bieber video—I don't know why it is the most popular, but it is—about 310 million views. Now, alternate models—if for some reason Justin Bieber or his guardians didn't want that information on YouTube, they could make that available on a justinbieber.com site. They might not have the full 310 million viewers. Some of them might come with the platform, but I probably believe that in its own right that would garner hundreds of millions of views from teenage girls across the country regardless of how it was placed on the Web or where.

Now, there is the business model element as well, and obviously Justin Bieber's business managers have chosen to outsource to YouTube the monetization of that specific content, but he could have done that in-house as well, had they decided to. It is a very simple technology, very easy to implement. He could have sold it through sponsorships or anything else. Any content provider is in that same situation.

But I do want to get on to the Apple and iPhone discussion as well. I talked to a app maker in Colorado about this, and this is actually in reference to, I think, Mr. Reed's testimony. Of course, a brief history lesson—we all know the story, of course, the proprietary Apple operating system that led to them having a declining

share, of course, on the hardware market, the computer market, with PCs and the Windows operating system generally conceding as winning that war.

And to a certain respect I think, Mr. Reed, you would argue, and I would tend to agree, that that is a kind of natural guardian to this. To the extent any operating system becomes too proprietary, it loses a competitive advantage. So it is a very fine balancing issue that any owner of a proprietary system might be able to engage in.

So the question is—again, this is from one of the app makers in my district, who says the real problem here is Apple's ability to prevent the consumer from choosing what applications are allowed on their device.

Now, that may very well be an issue, but my question is to what extent is it an antitrust issue and to what extent is it a competitive issue of Apple stabbing their own foot, as they did with regard to operating systems, if they create too proprietary a standard that will reduce, I think you said, a 15 percent market share that iPhones or iPads have today to perhaps an even lower market share?

Mr. REED. Congressman Polis, I think you just answered my question. The reality is is that the only way developers are interested in developing for the iPhone is that they get something back from it—either fame, recognition, money, advertising sales.

And what is interesting is I am a licensed Apple developer. I have signed the NDA. But I will tell you the interesting part of all that is of my friends who are developers, they are constantly, constantly looking at other platforms as an opportunity.

If the restrictions are too tight, a perfect example is Unity, and I mentioned this in my testimony. Unity makes tools that make cool games. They have 25 percent of the iPhone app development market. But they also have a huge chunk of the Xbox 360 market. People are porting it to Android. They have 200,000 developers just for Unity alone.

So our folks are a roving band of professionals, who are looking for the best place to get either the coolest technology, the most money, or the most opportunity for fame.

Mr. POLIS. So in the public policy context, and maybe Mr. Feinstein can add his two cents to close off on this, I mean, to a certain extent it is a discussion between to what extent is this a public policy issue or an antitrust issue and to what extent is it an issue of a system becoming so proprietary that it reduces its own capacitive ability to function in the marketplace?

And I wonder if Mr. Feinstein has anything to close on that.

Mr. FEINSTEIN. Of course. And once again I forgot to turn on the mic. I will answer this hypothetically rather than with respect to any particular company. But I think the answer that you just heard is, and which I think Mr. Reed indicated was an answer you had already given in a prior question to your own question, is absolutely right.

I mean, if you have a proprietary system that becomes dominant, that can be problematic if it has an exclusionary effect on the ability of rivals to come into the market. If, on the other hand, there is a proprietary system that has a relatively small market share and it is just one of a number of models and people have the ability

to vote with their feet by moving to other alternatives, that suggests the absence of that hypothetical of an antitrust problem.

Mr. POLIS. Thank you.

And I yield back the remainder of my time. Somebody turned up my microphone in the interim, but thank you, and I yield back.

Mr. JOHNSON. Thank you. It wasn't I, but perhaps staff.

But anyway, this has been a very intriguing calendar—oh, excuse me—panel discussion, many different issues that we just really nicked at. Many of these issues can be taken separately and delved into in great detail, and prioritizing them would be a problem, at least for a guy like me. But I will tell you I look forward to us delving into each one of these issues and continuing also to just look at the broad marketplace.

And I would like to thank all of the witnesses for their testimony today. And without objection——

Mr. GONZALEZ. Mr. Chairman? May I make a unanimous consent request? And that would simply be to submit to the representative of FTC, Mr. Feinstein, a written question regarding the attorney general of Texas' investigation that they have announced regarding the ranking by Google and such.

I didn't want to touch on it today, because there was a more important question, but nevertheless, this is of some import and curiosity, so I would like to submit it in writing with your consent.

Mr. JOHNSON. Without objection, Members will have 5 legislative days to submit any additional written questions, which we will forward to the witnesses and ask that you answer them as promptly as you can to be made a part of the record. And without objection, the record will remain open for 5 legislative days for the submission of any other additional materials.

Once again, I would like to thank this distinguished panel for your insight and for your time. I am sure that every industry can argue why it deserves to be treated differently under the antitrust laws, but competition left unattended can die just as easily as it can flourish. In the current economic climate, it is more important than ever that we do everything we can to nurture competition without crushing the engines of commerce that drive our economy.

It is important that we remember that we will always be ignorant as far as the future is concerned. We can speculate, but we never know what will happen, and we certainly don't want to restrain what could happen that would be good for mankind. But at the same time, we don't want to fall into a situation where we have got a clamp on creativity and in the marketplace, which translates then into life itself. We want to keep this a vibrant area, always shedding and growing.

With that, this hearing of the Subcommittee on Courts and Competition Policy is adjourned.

[Whereupon, at 1:07 p.m., the Subcommittee was adjourned.]

APPENDIX

Material Submitted for the Hearing Record

Statement of Judiciary Committee Ranking Member Lamar Smith
Subcommittee on Courts and Competition Policy
Oversight Hearing on Competition in the Evolving Digital Marketplace
Thursday, September 16, 2010
(Final)

America is undergoing a revolution in the way that it conducts business. In the late 1980s, computers became commonplace office machinery. The late 1990s and early 2000s saw the explosion of the Internet and the growth of ecommerce.

Today, the revolution is fully mobile and has moved to the phones we carry everywhere. These phones, which are actually small computers, have the capability to send emails, play videos, surf the Internet, give directions, and make purchases – all while the user is in motion.

Indeed, smartphones have created a marketplace for software, the app stores, which did not exist even two years ago.

The app developers, in turn, are creating new and innovative ways to utilize smartphones, far beyond what their creators imagined.

These are all good things. They enhance consumer welfare, provide new markets for goods and services, and, ultimately, could help create new jobs.

However, new markets and business models also raise questions about how companies are competing and whether their actions are pro-competitive or anti-competitive.

This hearing is an excellent opportunity to take a high-level view at a developing industry still in its infancy and ask what level of antitrust enforcement is appropriate.

I am a believer in vigorous antitrust enforcement. I believe it leads to more competition, lower prices, more choices, and better products for consumers.

However, antitrust enforcement is not without risk. Over-enforcement, whether through the antitrust agencies or the private bar, can deter business practices that would ultimately help consumers.

On the other hand, under-enforcement could allow companies to become firmly entrenched through anticompetitive practices that hurt their rivals, and, ultimately consumers.

Today's hearing is for general oversight purposes, and the witnesses will discuss these issues in general terms.

However, I would be ignoring the obvious if I didn't observe that this hearing appears to be intended to address the business practices of two companies, Google and Apple.

Apple recently made headlines because it changed the rules it imposes on app developers to address

concerns that the previous rules might diminish competition.

Apple was able to resolve this issue without the parties resorting to litigation and without government intervention. Innovative products and services, after all, are rarely created in the courtroom.

With respect to Google, much has been made about its recent acquisitions of a mobile-advertising platform and a travel-search platform.

I think a rigorous antitrust review of these transactions by the agencies is appropriate. That is what the antitrust laws are for.

However, just because a company is big does not mean it is bad. Just because it enters into new lines of business does not mean that it is going to dominate those new markets.

And just because competitors complain about a practice does not mean that it is necessarily anticompetitive.

However, it is equally important that antitrust enforcers and policymakers keep their eyes on these developments to ensure that they benefit consumers.

I think this hearing is a useful beginning to that process.

With that, I yield back the balance of my time.

Statement of Ranking Member Howard Coble
Subcommittee on Courts and Competition Policy
Oversight Hearing on Competition in the Evolving Digital Marketplace
Thursday, September 16, 2010

Mr. Chairman, when last we met in July, I made the observation that given the impact of antitrust law on the American economy, it is vital that we examine how well these laws are working, particularly in light of the innovation that today's high tech economy has brought.

Today we have an opportunity to examine what level of antitrust enforcement is appropriate in the evolving digital marketplace.

This evolving digital marketplace includes new products, such as smartphones and the apps that run on them, to new services, such as mobile advertising. It includes old businesses such as publishing companies, which are trying to break into new platforms, such as tablet computers, like the iPad. And it includes new companies, like many of the small software developers that are writing apps for smartphones.

These new technologies offer a wealth of opportunities both for individuals and for the economy as a whole. However, they also pose challenges.

For this hearing, the principal challenge is how to ensure that these companies are competing rigorously and fairly. Full and fair competition yields benefits for all consumers in the form of lower prices, higher quality, and greater supply of goods.

Our witnesses today will discuss the relative benefits of aggressive antitrust enforcement in these developing markets. They will also discuss whether some types of potentially anticompetitive conduct, such as vertical mergers, are particularly worrisome in this new marketplace.

I am for strong antitrust enforcement because I think it helps to ensure competitive markets. However, I am aware that some scholars worry about the impact of aggressive enforcement on developing markets, particularly whether such enforcement chills new innovations.

While this is an antitrust hearing, I would be remiss if I did not address some other concerns that arise from these new digital markets and services.

How for example, do existing copyright holders ensure that their rights are protected in this new digital marketplace? How do companies use our private information – information, I might add, that

people willingly part with on social networking sites – to make a profit?

These copyright and privacy concerns may not be competition concerns per se, but they are important issues that we, as policymakers, need to be aware of. And for the purposes of this hearing, I am curious to what extent – if any – these other values can or should be part of an antitrust analysis.

I look forward to hearing the answers to these and other questions and I yield back the balance of my time.

MATERIAL SUBMITTED BY THE HONORABLE JOHN CONYERS, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN, CHAIRMAN, COMMITTEE ON THE JUDICIARY, AND MEMBER, SUBCOMMITTEE ON COURTS AND COMPETITION POLICY

The Washington Post

Obama antitrust enforcement looking like more of the same

By Jia Lynn Yang
Washington Post Staff Writer
Wednesday, September 8, 2010; A1

When President Obama took office, he promised to undo eight years of what he called the weakest antitrust enforcement in half a century. Consumer advocates held their breath for a dramatic shift that would hark back to the 1990s, when the last Democratic administration pursued a landmark case against Microsoft.

A year and a half later, they're still waiting.
The Justice Department's antitrust division has yet to exercise its signature power: to bring a case against a corporate titan suspected of abusing its dominance. In its other central role, as a merger cop, the division challenged in court fewer than half as many deals in 2009 as the Bush administration did in its last year in office, though the number of mergers also declined by about half.

Instead, federal antitrust lawyers have eschewed aggressive litigation against big business in favor of a less-risky approach that works with companies to resolve anti-competitive concerns, according to many antitrust experts.

"They're running a good shop. It's just not markedly different," said Albert A. Foer, president of the American Antitrust Institute, a research and advocacy group. "Anybody that wants to argue the Obama administration is anti-business or socializing America is not going to find much evidence in the antitrust division."

A pattern is emerging in how the administration treats corporate America. In spite of some tough rhetoric, Obama has shown a certain reluctance to radically reshape industries. Rather than break up big Wall Street banks, the White House largely pressed to toughen rules as part of the financial regulatory overhaul. Instead of putting limits on how much bank executives earn, the administration encouraged federal supervisors to push these firms to tie pay to performance.

A scalpel, not a cudgel

Likewise, the antitrust division has shown itself more likely to use a scalpel than a blunt instrument when a merger has crossed its desk. When faced with mergers it worries will hurt competition, the Justice Department has forced companies to make some changes, such as spinning off a business line. But with one exception involving dairy processors, it has not gone to court to block deals, including the controversial marriage of Ticketmaster and Live Nation, the recent United-Continental airline merger and the union of the two biggest makers of voting machines in the nation.

Some consumer groups said that the department's measures didn't go far enough and that they have

been disappointed by the lack of big cases so far, pointing to potential antitrust targets such as Google, big health insurers and Monsanto, an agricultural conglomerate. Others say that it's too soon to grade the administration but that the real test will be how it handles, possibly this year, the proposed NBC-Comcast merger, which has broad implications for consumers and industry competitors.

"I think they have yet to prove their mettle in the antitrust area, and I'm still hoping they take on some tough cases and go to the mat," said Sally Greenberg, executive director of the National Consumers League.

Obama's antitrust chief, Christine Varney, said in an interview that the Justice Department should not be judged by how often it goes to court but rather by the results she gets after she confronts companies. The antitrust division also has several ongoing investigations into suspected monopolies, Varney would not comment on any particular companies.

In the area of merger enforcement, firms have walked away from six deals after hearing the department's concerns. In other cases, Varney said, Justice has been able to extract tough concessions that resolved the division's concerns, getting better terms than lawyers might have achieved had they gone to court.

And with the economy's slowdown, there have been fewer mergers coming across Varney's desk - and fewer chances to challenge deals, justice officials said.

"I'm happy to litigate. I think everyone knows that," Varney said in a recent interview.

Campaign promises

Still, the department's performance so far has fallen short of the high expectations among antitrust watchers when Obama took office. On the campaign trail, he gave an unusually detailed statement on antitrust policy, promising: "As president, I will direct my administration to reinvigorate antitrust enforcement. It will step up review of merger activity and take effective action to stop or restructure those mergers that are likely to harm consumer welfare, while quickly clearing those that do not."

Then Obama picked Varney as his antitrust chief at the Justice Department. (The Federal Trade Commission also handles antitrust matters, but is an independent agency from the administration.) Varney had raised her profile by representing Netscape Communications - the once-dominant provider of Web browsers - during the government's antitrust case against Microsoft. She further stoked excitement among antitrust advocates - and jangled nerves in the business community - after a tough speech in May 2009.

"It is time for the antitrust division to step forward again," Varney said then. "We must change course and take a new tack."

In an early signal that enforcement would probably be tougher under Obama, the Justice Department rejected guidelines issued by George W. Bush's administration on how to enforce antitrust offenses, saying the guidelines went too far in limiting the government's power to prosecute big companies that abuse their market dominance. Fines on companies for violating antitrust laws also sharply increased during the division's first year.

But in the eyes of some consumer advocates, the line in the sand between the antitrust division's current lawyers and their predecessors is less clear. They say nowhere was this more apparent than in the first big test of the administration's antitrust muscle: Ticketmaster's merger with the world's biggest

concert promoter, Live Nation.

To consumer groups, the deal was clearly egregious, because it would give one firm enormous power to dictate what prices consumers pay when they buy tickets and because it combined different businesses related to live entertainment under one roof: ticket sales, concert promotion and even the management of artists such as Miley Cyrus, Maroon 5 and Christina Aguilera.

The advocates asked the Justice Department to go to court and block it. So did 50 members of the House.

Several strings attached

In January, Justice said the merger could go ahead, but with several strings attached, including an unusual provision to set up a committee to monitor the new company for certain kinds of bullying. The agreement also required the firm to license Ticketmaster's technology to rival concert promoter Anschutz Entertainment Group. Ticketmaster also had to sell one of its ticketing businesses to competitor Comcast-Spectacor.

But the solution disappointed some opponents of the deal. "They chose to take the safe consent decree rather than to be aggressive and block the merger," said David Balto, an antitrust lawyer. "I don't think there's any reason this consent decree fully restores competition."

Seth Hurwitz, co-owner of the District's 9:30 Club, a Live Nation competitor, said: "Given the tough talk that came from them, yes, I expected and hoped that finally things would be different. But they're not."

But justice officials said it wasn't clear that the antitrust division's lawyers could have achieved an equally tough result by taking Ticketmaster to court.

Now, all eyes are on the proposed merger of NBC and Comcast, a case with echoes of the Ticketmaster deal because the two companies will combine businesses - in this instance, cable and media properties - that typically sit on opposite sites of the negotiating table but that if combined could help each other.

"I think, ultimately, the administration will be judged by its signature events," said Gary Reback, an antitrust lawyer who formed the Open Book Alliance, a group that has challenged Google's settlement with authors and publishers over electronic books. "The signature events have to be a willingness to go to court and fight about it and win, or at least go down swinging."

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RESPONSE TO POST-HEARING QUESTIONS FROM RICHARD FEINSTEIN, DIRECTOR, BUREAU OF COMPETITION, FEDERAL TRADE COMMISSION, WASHINGTON, DC

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Office of the Secretary

October 29, 2010

The Honorable Henry "Hank" C. Johnson, Jr.
Chairman
Subcommittee on Courts and Competition Policy
Committee on the Judiciary
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Johnson:

Attached are the responses for the record from Mr. Richard Feinstein, Director, Bureau of Competition, from the September 16, 2010 hearing on "Competition in the Evolving Digital Marketplace."

Sincerely,

Donald S. Clark

Donald S. Clark
Secretary of the Commission

Office of the Secretary

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Questions submitted to Mr. Richard Feinstein, Director, Bureau of Competition, Federal Trade Commission, by Representative Charles A. Gonzalez, Member of the Subcommittee on Courts and Competition Policy.

1. Google recently confirmed reports that the office of Texas Attorney General Greg Abbott "is conducting an antitrust review of Google." The Associated Press reports that the Attorney General's office confirmed that there is an investigation "focused on whether Google is manipulating its search results to stifle competition." As Google executives concede, accusations of fairness in the order the site returns search results are nothing new. Indeed, they were repeated and disputed at our hearing.

> **a. Would the manipulation of Google's search results be a subject into which the Federal Trade Commission's Bureau of Competition should be looking? Would the fact that Google's search algorithms lie at the heart of the search engine have any effect on the nature of an FTC investigation or the potential remedies that might be sought if the commission should find evidence supporting the accusations?**

Answer: We are aware of allegations regarding Google's search algorithm. Although I cannot comment on any specific allegations, I want to assure you that because of the importance of the Internet, the Commission has devoted considerable resources to both competition and consumer protection issues raised in Internet-related industries. With regard to search engine neutrality and Internet advertising in particular, the Commission recently investigated two proposed mergers involving Google (Google/DoubleClick and Google/AdMob.) In each instance, after intensive investigation, the Commission closed its investigation after concluding that the facts ascertained by staff did not provide reason to believe that the transaction would be likely to injure competition.

UNITED STATES OF AMERICA
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WASHINGTON, D.C. 20580

Office of the Secretary

In general, the Commission would be concerned if there were evidence that a firm with market power acted to stifle competition from existing or emerging competitors. In some circumstances, such conduct can harm competition and consumers. For instance, last year, the Commission charged Intel Corporation, the world's leading chip maker, with using anticompetitive tactics to cut off rivals' access to the marketplace in violation of Section 5 of the FTC Act.[1] To settle those charges, Intel has agreed to stop (1) using certain pricing practices that could allow it to exclude competitors while maintaining high prices to consumers; (2) creating predatory designs that disadvantage competing products without providing a performance benefit to its product; and (3) employing deceptive tactics related to its product road maps, its compilers, and product benchmarking to distort the competitive dynamic and harm consumers.[2]

Internet-related markets evolve quickly and we will continue to monitor this sector so that we are able to act quickly if we find any circumstances that threaten competitive harm.

[1] "FTC Challenges Intel's Dominance of Worldwide Microprocessor Markets," news release dated December 16, 2009, *available at* **http://www.ftc.gov/opa/2009/12/intel.shtm**.

[2] Analysis to Aid Public Comment, In the Matter of Intel Corp, Dkt. No. 9341, *available at* **http://www.ftc.gov/os/adjpro/d9341/100804intelanal.pdf**.

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WASHINGTON, D.C. 20580

Questions submitted to Mr. Richard Feinstein, Director, Bureau of Competition, Federal Trade Commission, by Representative Gregg Harper, Member of the Subcommittee on Courts and Competition Policy.

1. In your opinion, what steps could the FTC take to promote a more competitive wireless device market?

Historically, the Antitrust Division has handled antitrust oversight of wireless device markets, so the Commission has not developed any particular expertise from which to assess the competitiveness of this market. However, as I discussed in my testimony before the Subcommittee, antitrust enforcement can be particularly important in markets subject to rapid technological change in order to encourage innovation, spur economic growth, and sweep away impediments to competition.

2. From the perspective of small and medium-sized wireless carrier or a new entrant to the wireless carrier market, what impact do exclusive device contracts have on the wireless device market?

The use of exclusive contracts by a firm with market power can violate the antitrust laws if the effect is to keep rivals out of the market or prevent new products from reaching consumers – for example, if such deals are used to lock-up a significant portion of the sales outlets or sources of supply that are necessary for competitors to offer their products. If the Commission becomes aware of this type of activity it will take steps to address it. It did so recently, when the Commission challenged the use of exclusive dealing contracts by Transitions Optical Inc., the leading supplier of photochromic lens treatments for eyeglasses.[1] According to the Commission, Transitions used its monopoly position to strong-arm key distributors into exclusive agreements, which had the effect of unfairly boxing out rivals so that they could not use these distributors. Transitions' exclusionary tactics kept rivals out of approximately 85 percent of the lens caster market, and partially or completely locked out rivals from up to 40 percent or more of the retailer and wholesale lab market. The Commission alleged that these practices violated Section 5 of the FTC Act. To settle these charges, Transitions agreed to limit its use of exclusive contracts, which should pave the way for new competitors to enter the market.

[1] "FTC Bars Transitions Optical, Inc. from Using Anticompetitive Tactics to Maintain its Monopoly in Darkening Treatments for Eyeglass Lenses," news release dated March 3, 2010, *available at* http://www.ftc.gov/opa/2010/03/optical.shtm.

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In general, exclusive contracts are lawful when they improve competition among competing product lines and give consumers more or better choices. From the perspective of a wireless carrier, exclusive device contracts can be beneficial because they may ensure a steady supply of the device. Also, they may be important as a way to limit the risk of offering the product. For instance, the wireless carrier may need to invest in specialized service upgrades or marketing efforts to promote the new device, such as improved broadband capability, advertising, training for salespeople, an inventory of products on hand, or fast warranty service. These resources will likely be allocated to the development and promotion of the new device before the carrier knows what the consumer response will be; often, accordingly, carriers may attempt to enter into exclusive deals with the device maker to share some of these costs and help the carrier spread some of the risk of its investment – which makes that investment more likely in the first place.

In addition, exclusive device contracts can make it less risky for a new manufacturer to enter a market or offer a new product or because the manufacturer knows that it has guaranteed sales outlets. The contracts often reduce contracting costs and the exclusivity may encourage dealers to promote the new product with consumers. So from the perspective of a company wanting to introduce a new wireless device, exclusive contracts can make new products more likely.

Finally, exclusive device contracts may result in lower purchase prices to consumers for new must-have devices. Typically, consumers are also required to sign up for the wireless service of the exclusive dealer for a certain amount of time. This arrangement has the effect of spreading the actual cost of the new device out over time. For example, if a manufacturer has decided that it wants to earn $100 in revenue for a new phone, it may offer the product for $50, but require that the customer sign up for 12 months of service, which will generate an additional $50 in revenue for the manufacturer. This may be better for the consumer than if the manufacturer just charged $100 up front with no service requirement.