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INTERNET GOVERNANCE AND REGULATION: WHAT SHOULD BE GOVERNMENT'S ROLE?

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P R O C E E D I N G S

MR. WEST: Good afternoon. I'm Darrell West, vice president of governance studies and director of the Center for Technology Innovation at the Brookings Institution. And I'd like to welcome you to our forum on "Internet Governance and Regulation: What Should be the Government's Role?"

Broadband plays a powerful role in commerce, communications, and entertainment. It is a vital part of job creation, innovation, and long-term economic development. Virtually no part of our lives is unaffected by the digital revolution. But in recent years there have been controversies over who should run the Internet. FCC Chief Julius Genachowski came to Brookings a year ago to proclaim his support for net neutrality and an open Internet. And I know that speech was big when there were 1,500 news stories about it the next day.

Since there have been lots of new developments. The FCC put out its National Broadband Plan. Advocacy groups have taken out full page newspaper ads calling for speedy action one way or another. There have been court cases involving the role of Internet service providers. So it's obvious that opinions and emotions run very strongly in this area. People are worried about what the future Internet will look like and whether it will retain the same features that we have had over the last two decades. So people who say that Americans are apathetic about government clearly don't follow the technology and telecommunications areas. And of course, all that was before the midterm elections.

With the large Republican gains in the November elections, all of us are wondering how our national leaders will address these issues and the broader subject of Internet governance. What should be the relationship between the public and private

sectors? And what is the role of government in this area?

To help us understand these issues, we are pleased to welcome several distinguished speakers. David Cohen is executive vice president of Comcast Corporation, one of America's leading communications companies. He serves as senior counselor to the CEO and is responsible for corporate communications, government affairs, public affairs, and corporate administration. Before joining Comcast, David was chairman of Ballard, Sparrow, Andrews, and Ingersoll, a leading law firm. From 1992 to 1997, he was chief of staff to Mayor Edward Rendell of Philadelphia. David is a graduate of Swarthmore College and he holds a J.D. from the University of Pennsylvania Law School.

Erik Garr is a partner with Diamond Technology and Management Consultants. That company was just sold last week to Pricewaterhouse. For the last two years Erik served as general manager of the FCC Omnibus Broadband Initiative, also known as the National Broadband Plan. And that report, of course, still stands as a signature achievement for the country in laying out a future vision of what needs to happen in this area.

Our other speaker is going to be Gary Epstein. Gary is general counsel of the Aspen International Digital Economy Accords Project. Earlier in his career he was chief of the Common Carrier Bureau at the FCC. He founded and served as global head of Latham and Watkins communications practice. He did that for 25 years. In 2009, he became executive vice president of SkyTerra Communications, an advanced satellite company. That company was sold to Harbinger Capital this year. He also served a brief stint at the FCC last year as the digital television czar.

The format that we're going to follow this afternoon is as follows: David will start with a keynote address outlining his thoughts on Internet governance. Following

that we will hear from Erik and Gary. So please join me in welcoming David Cohen to the Brookings Institution. (Applause)

MR. COHEN: Thanks very much, Darrell, and good afternoon, everyone. Welcome to Brookings. It's a pleasure to be back here. And really a pleasure to be a part of this particular programming.

Like most people in our industry, I've watched with admiration as Darrell launched the Center for Technology Innovation at Brookings. And in the short time he's been here I think he's put Brookings back on the map as an important forum for discussing public policy and technology and the ways in which they intersect with each other.

As Darrell has settled into Washington he's probably learned for himself the old truism that there are three things that are impossible to find in this city. One is a cheap hotel room; two is a legal parking spot; and three is a unanimous opinion. Now, of course, unanimous opinions are hard to come by anywhere, and probably the last place you'd look for one is in the Internet policy space. A few years ago I might have even agreed that consensus is a long shot when it comes to the issue of managing broadband networks and what constitutes reasonable network management.

But recent developments suggest that a consensus among reasonable stakeholders may in fact be possible. We've just been looking for it in all the wrong places. The courts, the FCC and the Congress, all valuable institutions filled with tremendously and conscientious people, but few of them, quite frankly, with the background necessary to work out consensus on what are essentially complicated technical issues.

So over the years, lawyers and lobbyists have dominated the discussion on broadband policy, and I don't think they're generally paid for or trained to develop

consensus. No offense to anyone here. I'm a lawyer so I think I'm allowed to say that. And I've done my share of politics in my life. But that kind of experience doesn't make me or anybody else like me an authority on the Internet.

The Internet is a miracle. Not of lobbying, not of politics, but of engineering. And this engineering is all the more miraculous for taking an immensely complex technology and making it accessible, even to those of us who don't know a terabyte from a mosquito bite. We can enjoy the simplicity of using broadband Internet services because the complex challenges of delivering broadband are handled by the engineers who manage our networks reliably, securely, and fairly. Those engineers need to accommodate the growing bandwidth needs of nearly two billion Internet users around the globe and thousands of new applications. They need to meet the practical necessity of managing traffic flows 24/7 without raising allegations of unfairness. They need to handle all the wonderful new applications that demand extra bandwidth and extra technical attention, and at the same time cope with some not so wonderful innovations, including malicious ones that can harm millions of users. And they need to do all this working arm and arm with the businesspeople who need to figure out how to generate the capital necessary to pay for those networks to carry all that traffic.

Every one of these challenges involves network management. They're all incredibly difficult and nobody can claim to have all the answers. And that certainly includes Comcast. We're immensely proud of our engineering and technical talent. We have a great new headquarters building in downtown Philadelphia and fully 12 stories of that space is dedicated to housing engineers and related technologists. Nearly 40 percent of our entire company consist of technical personnel. And I think that speaks volumes of how engineering-intensive our business is in the 21st century. In fact, in an increasing number of meetings we remarked that the company is now being run by the

engineers. And I'll let everyone here determine whether that's a good or a bad thing.

Our business is inescapably at the center of the acrimonious but widely misunderstood debate over net neutrality. Were you to walk out onto Mass Ave this afternoon and ask the first 10 people you see to define net neutrality, I couldn't tell you what they'd all say but I'd bet you that you would get 10 different definitions. And that's only because this is Northwest Washington where nobody likes to say I don't know.

I won't add still yet another definition, but I can tell you that net neutrality is first and foremost an engineering issue. It's not a political issue. To be more exact, it is a set of engineering issues that stem primarily from network management challenges. Unfortunately, the national debate around net neutrality and an open Internet has been almost exclusively driven by lawyers. For too long now the debate has paid too little attention to the engineers without whom the Internet as we know it wouldn't exist.

At Comcast, we get daily reminders of that reality. For decades, millions of Americans thought of Comcast as the cable company. And that's okay because we're proud of our roots. We started in Tupelo, Mississippi as a community antennae television provider, but we're also proud that Comcast has now grown into becoming America's largest Internet service provider and built one of the world's largest IP networks. That fact might even surprise some of our customers.

Let me give you some numbers which I have to say blow my mind whenever I think about them. On a typical day, our network, just Comcast network, handles 48 billion requests for Internet addresses, what the engineers call DNS queries. That's the equivalent of eight queries for every person on this planet, every day, and just for one ISP. And those queries hit the network at a peak rate of one million per second. Our top service tier offers customers some of the fastest download speeds in the country, up to 105-meg down per second. In fact, that tier of service is now available to 25 million

homes in America. And the information moved by our network reflects changing technology and evolving user demands.

But some of the action inside that network reflects the dark side of cyberspace. Our security experts fight an unceasing battle to protect our customers from spam and malware. This is a vital part of the network management function for Comcast and every other ISP. Lately, our networks' mail servers have been fielding 525 million daily attempts to deliver e-mail -- 525 million. And a stunning 80 percent of those e-mails turn out to be sources of spam, attempts to steal customer data, or to infect users with destructive viruses. Like our competitors, we keep updating network management technology to keep this ugly stuff out of our customers' mailboxes.

At the end of September, Comcast engineers launched a new technology approach against botnets. These are the hideous viruses that are used to steal intellectual property of American companies and steal millions of dollars from banks among other businesses. We now provide our users with a suite of security services that we call Constant Guard. We believe it's the most comprehensive such suite available on the market. We've added a proactive bot detection component to this service, which is a first among ISPs in the U.S. Once a bot is detected, the system automatically notifies the customer and provides them with a link where they can get help in removing it. This was a terrific innovative solution executed by our engineers. But as Comcast has learned, innovation isn't enough even when it's technologically successful. Innovative solutions need the force of consensus behind them because the Internet community has one thing in common with the stock market; it does not like surprises.

Our education in that sphere began with our BitTorrent adventure. And for anyone here who was in a coma and did not follow this adventure, let me offer you a brief recap. (Laughter) BitTorrent is what's called a peer-to-peer file sharing program. It

links thousands of computers together to distribute super high bandwidth files like full-length movies -- some legally, and some not. Peer-to-peer applications have been around for years but BitTorrent was engineered differently. When it came on the scene around 2005, it actually was designed to supercharge, to turbo charge the delivery of this content. That's why it was called torrents. And the BitTorrent comes out of that particular name.

When an incredibly small minority of our customers made use of this aggressive, bandwidth-hungry protocol, the result was slower service for a lot of our customers as the shared bandwidth in a neighborhood was monopolized by these torrents. We wanted to balance this out and we felt that we had to take action. So in 2007, we and many other ISPs made a considered judgment. And in retrospect, I think it is safe to say that we made the wrong decision for all the right reasons.

Notwithstanding what some have argued, we didn't block all bit torrent traffic and we didn't do anything based on any competitive intent as some of our harshest critics later conceded. But we did take measures that would redirect or slow down uploads from computers on our network. We didn't do it in the most elegant way. We didn't tell the Internet community what we were doing. We didn't explain to our customers what we were doing. And the Internet community certainly let us know about it. This led to an FCC complaint and a terribly flawed 2008 finding by the previous FCC that our decision to manage BitTorrent uploads in this way violated the heretofore unenforceable principles of net neutrality.

So we felt we had no choice but to push back. We thought the FCC decision was unfair and unwise and we took it to court. And not surprisingly to us, although maybe of some surprise to others, the D.C. Circuit ruled decisively that the prior FCC's action was wrong and improper and indefensible under the law.

While the D.C. Circuit vindicated Comcast, I think it's much more important to consider what we learned from all this. Some months into the FCC's decision -- into the FCC's process, but long before they had reached a decision it became clear to us that the legal issue that we were debating was at its core an engineering issue. So our engineers got to work and they reached out to BitTorrent to explore how their application and our network could get along better. And that led to an agreement and an ongoing collaboration with BitTorrent and with other players in the Internet space.

In the end, we pursued another better way to deal with network congestion issues in general, and our engineers decided that before implementing that they wanted to take the pulse of the Internet community. So our engineers took those technical findings issues and their knowledge to the Internet engineering task force, the IETF. The IETF is an independent, self-governing, international standards body that evaluates a wide range of technical proposals. IETF has no ideological bias, just an insistence on transparency and technical rigor. The IETF is not a forum for filing or adjudicating complaints. It is a forum where engineers and technologists representing every layer of the Internet seek solutions. It's an organization where new ideas can be vetted with some of the world's most accomplished engineers, where deliberations are open to the public and a comment by anyone with the interest and the technical qualifications. And I might add the IETF exemplifies the self-governance tradition that's worked so well for the Internet worldwide.

So we went to the IETF with our P-to-P concerns and some new ideas on how to deal with them. This led us to a traffic management approach that solved our congestion problem in a reasonable way without triggering any complaints of unfairness from the Internet community or from our customers. By engaging in an ongoing dialogue

with the IETF, BitTorrent, Google, and others in the Internet space, we have found a way to manage our network effectively and to protect the overall customer experience.

Since this accord, there has been very little said about our network management practices. Not because we've stopped managing our networks but because any issues are worked out by the engineers in real-time as they should be. So based on this successful experience, we've taken other new network management ideas to the IETF, not after the fact but early in the planning stage. And as we've tested things, we've openly shared the results of those trials. That's part of the transparency that IETF thrives on. This not only helps us but it also gives us the chance to contribute our experiences back to the IETF for the benefit of others on the Internet. We get to give something back to the global effort.

Comcast is one of many U.S. companies to benefit from working through the IETF. And our collective experience convinced us that we would all benefit from a U.S.-focused body modeled on the IETF. An engineering-based, independent organization devoted to Internet technical issues, including issues surrounding network management. To address these issues, America needed an institution as innovative as the Internet itself. And now we have one in the form of the new Broadband Internet Technical Advisory Group, known as BITAG, B-I-T-A-G. Comcast is proud to be a charter member alongside other leading ISPs, equipment and software companies, content companies, and representatives of the Internet community, including academics and Internet users.

America has never had a similar domestic forum where companies could bring their questions or problems for objective analysis and solutions. But with BITAG, anybody with a legitimate stake in a network management or other technical issue can contribute to a solution. BITAG will be available to advise federal agencies on the

technological aspects of Internet policy issues. The only condition is one required of all participants. Please don't send lawyers to BITAG operating -- working sessions. Send engineers or other technologists ready to deal with these questions at an engineering level in a nonadversarial setting.

For those in this room whose first instinct might be to run to the FCC to challenge a network management practice, I'd ask you to think of it this way. The difference between taking a question to BITAG or taking it to a regulatory agency will be the difference between going to a marriage counselor or hiring a divorce lawyer. The first way offers the possibility of working things through to an equitable solution. The second promises to be messy, prolonged, and expensive, even if you win.

BITAG is an idea whose time has come. And this new organization couldn't ask for a better leader than Dale Hatfield. Dale is an engineer's engineer, but also a people's engineer, with the capacity to bring the most complicated issues down to earth. He's a master at helping people reach consensus, and that's what BITAG is about. We believe BITAG will build on the proven success of the Internet as a largely self-governing, self-healing ecosystem, an ecosystem guided by consensus among the people who live in it with minimal direct involvement by government. This isn't lack of governance; this is self-governance built around consensus and it works.

I've been called many things in my professional career, but never naïve. And I'm a big believer in consensus building. Ironically, I learned the power of consensus in the rough winner take all of big city politics during the five and a half years I was chief of staff for Ed Rendell when he was Mayor of Philadelphia. When people said it was impossible to reach consensus around the difficult issues confronting Philadelphia and other aging northeastern cities. Ed Rendell inherited the city government on the verge of bankruptcy with rising taxes and declining population. And the famous turnaround the

Rendell Administration achieved in Philadelphia could only be achieved through consensus building among the city workforce, city council factions, the business community, civic and neighborhood groups, republicans and democrats working together, believe it or not, in Philadelphia, Harrisburg, and even in Washington, D.C.

The consensus in Philadelphia was driven by crisis. In this case, consensus on Internet policy can be driven by opportunity and by turning to the experts first. Consensus along with self-governance is already a hallmark of the Internet around the globe. It's time I think for us to put it to work for us here in America. I know the term self-governance rings alarm bells in some circles. It stirs images like the recent New Yorker cartoon that showed a suburban house engulfed in flames. Firefighters are racing across the front lawn, but a man with a garden hose is cheerily waving them away saying, "No thanks. We're Libertarians." (Laughter)

Now, by no means am I suggesting a Libertarian approach to Internet policy in America. Self-governance does not mean chaos and it does not mean that there is no role for government. All of us benefit from having a free and open Internet, and maintaining that is a completely legitimate governmental concern. The only question is how. And for the good of the whole Internet ecosystem, public policy has to allow for two essential needs.

First, Internet companies must be free to manage their networks in the best interest of their customers. And second, they must have the opportunity to make the financial returns necessary to keep expanding and innovating in broadband. Just before Congress recessed for the midterm elections, which seems like a long time ago now, Congressman Waxman made a commendable effort to build stakeholder consensus around a workable approach on these issues. His effort was the third of the last six months to try and bring competing stakeholders together to reach a consensus

resolution. The proposal generated out of those talks was supported by a diverse array of stakeholders, including the Consumer Federation of America, the Consumers Union, Public Knowledge, and the Center for Democracy and Technology, the entire cable industry, as well as AT&T and Verizon, labor, civil rights groups, and many players in the tech and venture capital communities. Arguably, the most diverse coalition ever to be forged around a telecom issue, at least in the last 25 years. I think this showed that reasonable minds can reason together, and I hope that spirit continues to prevail.

I also appreciate Chairman Genachowski's efforts to the same end, to find alternatives to the imbalanced and dangerous regulatory approaches that some have advocated and in fact, demanded, while at the same time attacking him personally. We need to move on from that type of unproductive behavior. An open Internet is vital to American interests here and around the globe. I applaud the forceful stance taken by the Obama Administration in support of a free and open Internet globally as reflected in the President's September address to the United Nations. Secretary of State Clinton and Ambassador Verveer have also been clear that the openness that characterizes the Internet in the United States should be embraced by governments worldwide.

The open Internet faces a somewhat different threat here at home. The vitality of this brilliant resource created by engineers could be litigated and legislated away piece by piece by lawyers, lobbyists, and organized activists. They are all entitled to their opinions, of course, but opinions should not be the basis for national policy. It must be grounded in engineering principles based on facts and data consistent with the public interests and reinforced with the benefit of consensus. If that simple test is met, the Internet will remain a driving force for economic growth, job creation, and an ever more free society.

So the Internet is too big and too important for government to ignore, and

it is too complex and too dynamic for government to regulate intrusively. Let's learn from the Internet itself. It's flourishing as a self-governing, self-healing ecosystem. And the more we can take advantage of that model, coupled with reasonable consensus-based regulation, the better we will be and the better the Internet will be. Thank you all very much and I'll look forward to the panel. (Applause)

MR. WEST: I do want to point out there were two people who were supposed to be on the panel: Dale Hatfield, who is the new director of BITAG, and also Sascha Meinrath of the New America Foundation. Sasha got sick, so he was not able to join us this morning -- this afternoon, and Dale had another commitment.

But David, I want to thank you first for sharing your thoughts with us. I have one question for you and then we will hear from Erik and Gary.

Now, people always are skeptical of multi-stakeholder bodies engaging in self-regulation, especially when large corporations are involved. So you have described this new institution called BITAG, the Broadband Internet Technical Advisory Group. So can you tell us a little bit more about how it operates and why should consumers trust a bunch of engineers?

MR. COHEN: Well, I'll start with the second point first, which is if corporate executives can trust a bunch of engineers, I think consumers can trust them as well. And I don't want to elevate engineers to some lofty position sort of above the rest of us, but I think one of the benefits of engineers and an engineering background is that engineers are trained to come up with and to execute the right answer for how in this case networks work and work most effectively. So by their training and by their entire mindset, I think engineers are in the best position to advocate for the appropriate solutions within our companies and within society to ensure that networks operate in the way in which they are intended for the benefit of consumers, which I think should be the

mantra for all of us who are in control of networks.

In terms of self-regulatory bodies that, you know, consist of multiple stakeholders, I think including large companies, I think you've -- the question really gives the answer in the way you phrased it which is this is not a body that Comcast, Verizon, and AT&T control. There are multiple stakeholders who are present in this body and they've got different interests in the way in which the Internet functions and in the engineering solutions that could potentially be brought to BITAG. And I think it is the competing stakeholder interests and the coordination and collaboration at the engineering level between representatives of those different interests that provides the protection and the quality and the value of the output from an organization like BITAG.

MR. WEST: Okay. Erik, I want to bring you into the conversation. You have served both in the public and in the private sectors. What do you think should be the role of government? How can we best protect and maintain a free and open Internet?

MR. GARR: Sure. You know, one of the things we thought a lot about when I was at the FCC is anything we're doing around broadband we had to make sure we understood how three groups would be affected. First and foremost, our customers; second, our shareholders; and third, our taxpayers. And in any kind of regulatory question, we want to make sure we looked at all three of those groups because they all have kind of legitimate claims as to the outcome.

I think this particular debate around Internet governance has not probably spent enough time thinking through the customer part of that. And I want to just highlight something David said that's a very curious twist of events in the BitTorrent case. And kick me if I have this incorrect, as I know you will.

MR. COHEN: You're far enough away. You're very safe.

MR. GARR: Yeah, right. Right. I can switch seats.

The, you know, so you have this dust up over BitTorrent and a lot of customers get very upset with you over it. The FCC starts to do some things and long before we get to the court case that happened a few months ago, the problem's actually kind of been solved. The network has adjusted to this new type of software in this new architecture. Customers who like to use that type of software are using it.

The reason I make this point here is that the regulatory apparatus is always going to be behind. No matter how hard we try, no matter how hard we work, it's going to be behind changes in the network and changes in customer behavior. And I think the role for government is to make sure that customers have transparency into how these large companies are working and have a mouthpiece so that they can have their voices heard. But my impression from my time in the private sector is if you really want to get a company's attention, it's through their customers. That's really a way that you're going to get a lot of productive behavior. And I think if you look at the BitTorrent case, even though there's a whole bunch of regulatory dust ups, at the end of the day a problem was solved and customers are now using the network, which is sort of what I think we kind of all want anyway.

MR. WEST: Gary, you serve as the general counsel of the Aspen International Digital Economy Accord's project. So can you tell us a little bit about the project goals and what issues you are hoping to resolve?

MR. EPSTEIN: I can. And thank you very much, Darrell.

This is a new role and a new ambitious project which has been undertaken under the auspices of the Aspen Institute. The difficult issues and problems which David was talking about from a U.S. perspective, I think we all know are exacerbated and even heightened when you talk about an international perspective. You have, you know, issues out there about potential foreclosure of market access, cyber

security, and privacy issues. And there were a series of meetings sponsored by Annenberg at USC over the last year. And that whole project has now been transitioned under the auspices of the Aspen Institute.

The project leaders internally are, of course, Charlie Firestone, who is head of the Communications Society Program at Aspen. Reed Hunt, the former FCC chair, is the chair of the project. Peter Cowie, who was at USTR and was at the FCC and is now the dean of the School of International Relations at UC-San Diego and AI's general counsel, has undertaken to try to put together a foundation-funded project which will span over a year to try to look at some of these more difficult problems of the international governance of the Internet.

We have 20 companies who have agreed to participate, some of the major companies in both the Internet and the telecom space. Four of the prominent NGOs have agreed to participate, and we have briefed the Department of State, the USTR, the FCC, Department of Commerce, and the White House and they are all extremely supportive of the project.

We had a kickoff planning session at the end of October, and we have now divided into five working groups to look at some of these particular issues. And what we're going to focus on are both the substantive aspects of the issues that are involved, but also apropos of this meeting and of this conference and of the remarks that have been made here today is what are the governance structures? Are we really going to focus on norms? Standards of conducts by companies and the kind of body that David was talking about? The IETF is a great example of something which is well respected internationally. And then are you going to need some sort of NGO to enforce those norms and standards? And finally, are we ever going to get to the point where we recreate something like happened in 1996 with the annex to the basic telecom

agreement? That's a real hard thing to get to but is that going to be necessary ultimately in the aspects of international governance?

So it's an ambitious program that we're involved with and hopefully we'll make good, constructive, productive results over the coming year.

MR. WEST: Okay. Thank you.

I'd like to open the floor to questions and comments from any of you. If you could give us your name and if you're with an organization. And we would ask that you make a question as opposed to giving long speeches.

The floor is open. Mike Nelson over here.

MR. NELSON: Mike Nelson, Georgetown University.

MR. WEST: We have a microphone coming over to you.

MR. NELSON: Mike Nelson, Georgetown University. I want to thank you for a very interesting, provocative speech. And touching on one aspect of net governance.

MR. COHEN: Hopefully not too provocative. (Laughter)

MR. WEST: You're about to find out.

MR. NELSON: One of the things that's really important if you're trying to find a self-regulatory structure that has credibility is that there be real competition in the market and that there's not one or two companies that do control the whole process and control the whole market.

I consider myself a cyber Libertarian Democrat, which is kind of an odd mix.

MR. WEST: Is that kind of schizophrenic?

SPEAKER: You've got a lot going on there.

MR. NELSON: It is. Definitely an oxymoron. But so I very much agree

with your point that the less regulation that we have the more innovation can happen. That there's a lot of opportunity here. But I also look at the present telecom market and the regulatory environment that you operate in and I see a lot of legacy regulation that is actually protecting you and the other incumbent players. And so there are state regulations. Certainly, the local franchising rules will often block new entrants from coming into the market. And as a result, the telecom market is much less open and much less competitive than the market for computers, for instance.

And so I think you have a better case to be made for self-regulation if there are few barriers to entry. Is Comcast doing anything to get rid of some of the old rules that are actually protecting you, like universal service subsidies? Like the restrictions on licensing in the local market? I can ask the same thing of telephone companies, too. They're protected as well by a number of old rules that were put in place long ago that have the impact of preventing new players from coming into the market without a phalanx of lawyers.

MR. COHEN: So let me sort of start with the proposition that you expressed, which is probably you're not surprised that I don't really agree with, which is that I can tell you from inside our offices we see a much more competitive and dynamic market than you describe. And that's certainly true in the video space, and I think it is also true in the high-speed data space. And it's true in the telephone space.

In the video space, we face at least two, and often three or four landline competitors in virtually every market in which we function. That is Dish and DIRECTV as two national competitors, and AT&T or Verizon, plus often another over-builder wire-line competitor in that space. And although in the high-speed data space the competition tends to be more of a duopoly, and I know it's been a long time since I've been in a rigorous economics classroom back in Swarthmore College, I do remember my basic

economics that duopolies are only sometimes not effective competitive environments, and sometimes they are very effective. And I will tell you that you can look at the competitive dynamic in the high-speed data space and you can see the effectiveness of competition there.

When the bells run a promotion in any particular quarter, their market share goes up and the cable share goes down. When cable -- when Comcast responded to the launch -- when Verizon launched FiOS, the clear competitive advantage of Comcast by way of speed and our markets of overlap began to dissipate and Verizon gained market share, when we then decided to invest in DOCSIS 3.0 and upgraded our speeds up to 105 megabits, we began to take market share back from Verizon. All the classic cases of a competitive market are absolutely demonstrable in the way in which units move in response to price and quality adjustments in the market space. So I start there.

Most of your question related to franchising, and I -- look, I think there are real barriers to entry in a traditional MVPD video business. I don't think those real barriers to entry are primarily or even significantly related to regulation. I think they are related to capital expense, capital intensity, and how difficult it is to build a plant to be able to compete effectively with incumbent players. And as evidence for that, I would cite the -- it's got to be 15 or 20 states that have eliminated local franchising, that essentially have gotten rid of that regulatory impediment that you talked about.

Now to be fair, at the time that was happening, I've said the same thing that I'm about to say to you, which is I don't think local franchising is a real impediment. I think there's not a city in America, not a local franchise in America, that wouldn't have welcomed competition to come in and compete with their cable companies. After all, the franchises are not exclusive. They are simply a license to use that. But the evidence of

that is that if you take the states where local franchising has been eliminated, you have not seen an explosion of wire-line over-builder competitors coming in. You've seen Verizon and AT&T be able to come in in some of those states and take advantage of the state franchising legislation, but Verizon and AT&T had the capacity to get local franchises as well.

And I think the moral of the story is that it takes billions of dollars to build a network. And unless you have the capital capacity to be able to do that, you're not going to be able to build a network, regardless of what the capital -- regardless of what the regulatory apparatus is. But again, bottom line, we function -- I believe we function in a very, very competitive world now, particularly on the video side.

MR. NELSON: Just as a counter example, in Europe where they've designed a somewhat different regulatory structure, there seems to be no debate over net neutrality there or very little because most people have five or six choices, not just two when it comes to broadband, and they're substantially cheaper and much faster. So there's clearly some regulatory barriers in our country that are making it harder for small players and medium-size players to enter the market.

I agree with you. Franchise is less of a problem than some of the barriers on the telephone side.

MR. COHEN: So I think you're mixing and matching here. I mean, in Europe, satellite is a dominant competitor; a single satellite company is a dominant competitor in most countries for video. So if you want to move to the high-speed data side, I think there are so many differences that have been generated in the international context versus here. And, you know, you sort of start with -- frankly, you start with government subsidy of the development of networks, which basically has not existed in the United States and is prevalent in most of the countries that you are referring to. And

again, I think that's the number one, that's probably the number one determinant of some of the different competitive structures that exist abroad as compared to the United States.

MR. WEST: Okay, we have two questions over here, right here and then right behind you.

SPEAKER: Thank you. I'll try to make a long story short.

MR. WEST: Thank you.

SPEAKER: I'll do my best. Having been involved since the late '80s, reporting to both Vint Cerf and Bob Kahn when we were establishing the IETF Secretariat, I appreciate your kind words for the IETF. It wasn't an easy job getting that all done. I was the lawyer in the mix of a whole bunch of engineers, but you know, there's rules for lawyers, too, because oftentimes -- and I'll get to my question -- oftentimes the setting up of structures out of government -- because when it wasn't government it was real easy because most of them weren't on the payroll at the time -- and so you had to make change very carefully because patents were involved. And you had to make them play nicely in the sandbox so that they wouldn't try to bring in heavily patented or controlled technologies and try to change what was a dynamic situation.

Now even look at the term "broadband," what's that? Internet -- I mean, don't get me started on what the Internet is. I could take a long time on that because there's so many views.

Now the reason I stood is because we've had some experience over the '90s. We set up some structures at CNRI, that's Bob Kahn's group. One was called the cross-industry working group. You'll find that at xiwt.org, and the other was IOPS. And what it was essentially, it was the carriers and it was the ISPs trading dirty laundry to try to figure out what's wrong, what's right, what can we do. This was not the engineering task force. This was on the ground, boots on the ground, trying to make something work.

But again, having an agreement -- I had a two-page little agreement -- every single lawyer, every single company, had to negotiate that agreement. So I wouldn't leave the lawyers necessarily out because essentially what happens if you set up -- and I would be very hesitant to move to an NGO right away. I'd give very serious thought to that. XIWT and IOPS went away when their need went away. So it has to be that flexible.

And so basically when you get to it, the structure has to evolve. And one of the things I've seen over the years is that you really, really need to build in protections against status quo and companies' streams because otherwise it won't move forward.

And I guess my question is, has that come up in your discussions about setting up this new organization?

MR. EPSTEIN: I only have one comment. Can you come talk to our Aspen group and tell us a little bit about how that gets set up because this issue of government to government or norms and enforcement of norms with NGOs is, I think, going to be crucial not only in the domestic sphere, but in the international sphere at the same time. And so I think that your experience is really important in making progress there.

SPEAKER: I'd like to add just one more thought; excuse me for preempting here just a bit. We also have some work going forward with the International Telecommunications Union. I used to work with the U.N. years ago and on the inoperability of information systems. So there's new things in the works that perhaps I'd be delighted to share, and I'm sure Bob Kahn would, also.

MR. COHEN: So I think the short answer to your question -- and you probably should come talk to BITAG, too, as long as we're additives -- is that as with any -- I think there's sensitivity to the very issues that you address. There's nothing that you said that I disagree with. And BITAG is a new organization. It has just started. There is

plenty of room for refinement and for evolution and for change. And I think that as the organization becomes fully populated, the board becomes fully populated, the opportunities will exist to be able to shape the initial structure as well as evolutionary structures and roles and responsibilities for the organization.

MR. GARR: I'd just like to add to that and remind everybody that lots of industries face collective action problems like this where it's sort of in the industry's best interest to work together, and they find a structure to do that. The securities industry, you know, exchanges, and clearing houses, sometimes those are cooperative; sometimes those are companies where all the big companies are shareholders in it. There's lots of different ways to structure this.

And I don't want to minimize the legal importance of getting those right, but I think the first step is to kind of get everybody in a room and figure out what the problem is. You know, if we've actually got a clear idea of what we're trying to accomplish, then you can get to what the appropriate structure is. But I don't think it's unusual and I think that the IETF gives us a great model because, let's face it, most of the network problems -- and there have been many -- that pop up in the management of the Internet over the last 40 years, you know, IETF has been a pretty good way to work through those things.

And, you know, the BitTorrent case is one case that we all talk about, but there are thousands of instances like that. And my own view is the self-free enforcing nature of that, which is to say when a customer's upset about something, they sort of raise it and then the different providers address it, and whether they work through it together -- that kind of self-healing process we don't want to slow down because that actually happens every day right now, and we need to make sure we preserve that as we think about what that new structure would look like.

MR. WEST: Okay, there's a question right there.

MS. GAD: Hi. My name is Jennifer Jallo Gad. I own a small communications boutique law firm here in the District, and I also author several blogs. One of them is called Jenniferspeaks.com, which covers politics and tech issues.

And I had a two-part question: One, I wanted the panel to address the impact of the investment community on government regulation, how government regulation impacts or can deter investment. The reason why I ask that is because whenever I do a post on my blog -- and I author like six or seven different blogs -- but whenever I do a post regarding government regulation and the fact that there is impending government regulation on any industry, I monitor, like a lot of blog owners, I monitor the traffic and I get a lot of traffic from investors, overseas investors, who are like wondering, like, what's going on. And they hear that, you know, regulations going down and then they want to know should we invest in this industry or should we invest in this company or not if there's going to be some sort of impediment or, you know, the government's going to slow it down.

My second question has to do with technology. I went to an event recently with Vivek Wadhwa, who's a noted entrepreneurial researcher. And one thing I asked him about was net neutrality and what he thought the net neutrality impact would be on, you know, I guess innovation and whether or not it would slow it down. And his response was that whether the government regulates it or not, innovators are clever enough that they're going to go around and circumvent it. So if a company were to, you know, block, they will lose customers. And so that kind of goes -- I guess someone said the point that customers rule, you know, in terms of the free market. But, you know, so if you can address the technology and investment community and how that impacts, you know, government regulation.

MR. GARR: I'm happy to talk about the investment community quick. I was with a bunch of teleco investors last week, so this is somewhat fresh in my mind. I think the thing to remember is investors like certainty. That's sort of more important than anything. Many investors invest in regulated industries. That's not unusual. There are lots of people that enjoy the somewhat stable dividends that those industries can sometimes pay. What they really don't like is uncertainty, and I think one of the biggest issues as an industry that we face right now over all this dustup around net neutrality and Title this, Title that, is that it creates uncertainty.

So irrespective of what the outcome is, if you have capital to deploy, you know, you're watching. And if they see something in your block, they're watching. They're watching you, they're watching us, they're watching everyone in the community because uncertainty threatens their capital.

By the same token -- but I think what I guess the point of that to me is that the sooner we kind of settle in on this stuff, the better. There is a cost, too, of time here, not just in time to work out processes, but you know, more time means more uncertainty for investors. And the thing to remember about capital is it just goes to the highest use. So an investor may love Comcast stock, but you know, if they decide there's another stock with a better return, guess what? They're going to take their capital and put it in that other stock. The good news is they'll also come back.

But I think as an industry, and particularly as a government -- and again, I no longer speak for the government -- but as the government considers its role in the industry, the more quickly we can get to some certainty. That's what investors are looking for.

And I think I kind of made the customer point. You know, the best medicine to get the network to improve better are customers and their reactions to its

performance. And that'll get companies' attention much more quickly than regulators.

MR. EPSTEIN: In think on the investment side, it's well stated. And as you're well aware, this is not a new issue. This is an issue which has been around forever and will be around forever. A kind of a key point is the length of time it takes for governments to make, for regulators to make, decisions. That is just death in many cases. I've been involved in the years over, you know, with lots of mergers, and the slowness necessary in good faith of the regulatory agencies acting in those circumstances, you know, can be a big problem. You can point to a hundred examples in the communications sector and everywhere about the point you're making.

And so it would be great if government were able to act quickly and decisively, but it's not the nature of the beast, and I don't know any real way to cure it. Some of the things we're talking about with some of these data-driven, self-regulatory, regulatory, or other bodies may help in some limited extent with a problem, but I don't see how it goes away.

MR. COHEN: I think it has been said, let me -- I'll just sort of drive the point home -- I think that if going back to what I said at the podium, I don't think there's a one-size-fits-all approach. I did not come here to advocate that the government should just keep its hands off the Internet and go away, that between IETF and BITAG, we've got the problem covered. I think that through organizations like IETF and BITAG, we can see a better, more efficient way to be able to resolve a large number of issues before they get to the need where government regulatory intervention would be necessary.

And, you know, Erik's sort of rumination on what actually happened in BitTorrent is a perfect example. Before the government machinery -- fair or unfair, right or wrong -- could even be deployed to solve the problem, the problem was solved. So I think there is a healthy mix between the two and that coming out of some regulatory

certainty around those particular issues will be the result -- the result of that would be the creation of a more favorable investment climate than what exists today.

MR. WEST: If I could follow up on that. What do each of you see as the future of net neutrality? What should the FCC do? What do you think Congress should do, if anything?

MR. GARR: I think everybody's kind of agreed. We just need to get on with it.

MR. WEST: What does that mean?

MR. GARR: So first off, as a non-lawyer, I have to be honest, this one is sort of beyond my capacity to fully understand. But it seems to me like there are some principles that as you read through all the different proposals are pretty common, and I think we should sort of agree to those and move on. I'm not sure that getting the, you know, the perfectly written, you know, perfect set of new regulatory regime is really what's of interest to everyone. I think it's more figure out where we agree and get on with it. But again, the others may have more detail about it, but it strikes me as a debate that's probably gone on too long and it's time to just kind of get on with it.

MR. EPSTEIN: So I'm speaking for myself and not for Aspen or anything or anybody else, and I have an engineering degree so I'm in the favored class. I have a law degree so I'm in the disfavored class. And I think that the Commission should probably declare victory somehow and not get involved in a giant Title II third wave, fourth wave, fifth wave, crossing the T's, dotting the I's. As you said, there's probably around 90 percent agreement on what the basic principles should be. And even though it is not tidy, I probably would leave it a bit messy without, you know, attempting to resolve things and wind up with two more court appeals in the end and take complaints if there are abuses in the future.

MR. COHEN: So this may come as a surprise, and I was at another forum where I expressed these views, and I saw some of the disbelieving looks on the audience's face. But I actually think you have to give credit where credit is due, and I think that this FCC under the leadership of Julius Genachowski has done an incredibly good and careful job of trying to walk a fine line here.

On the one hand, you have the chairman stand up on this stage and absolutely in an incredibly articulate, impassioned, and impressive way set forth the importance of an open Internet, the importance of it to this country, to the industries. And you know, needless to say, we only got about a thousand requests for comment. I'm trying to think there all the 500 people who wrote about this who didn't call us, but they were thinking. And, you know, we had very measured comments of, you know, it's hard to disagree with anything that the chairman said.

And yet, by the same token, he has also articulated and this administration, which sometimes gets bashed for not paying enough attention to the business side and to the value that business brings to the equation. I think the administration and Chairman Genachowski have been incredibly sensitive to the need to protect the incentive to invest that we talked about in response to the last question. And it is very hard to thread that needle.

And yet what has happened -- and I think it started in the chairman's office with Eddie Lazarus leading two or three months of discussions to try and build consensus. It moved to an ITI-sponsored discussion among a different set of competing stakeholders. And then it moved to Chairman Waxman's offices -- I mean, if you look at what's been discussed in those three efforts and view each of them as a circle and plot them on a piece of paper, you will see that there is about 90-95 percent overlap among those three circles.

And so, you know, as Gary said, I think -- and this is the part where I can't believe David Cohen and Comcast are saying this -- it is time to put this behind us, to create some certainty whether it's declaring victory or declaring project completed, checkmark in the box, and let's move on to some other really important things in the broadband arena like implementing the National Broadband Plan and the many aspects of that Plan that there is wide consensus and agreement over, and let's not kill ourselves on how do we do it and do we need legislation and what Title do we regulate under. Let's try and proceed, figure out with the lawyers -- because you can't throw us out of the room -- figure out with the lawyers the best way to accomplish that result.

And again, to go back to the subject of this talk and to provide some comfort to the government, to consumers, to the public, that we can have a regime with real self-regulatory and real bodies that can deal with thorny issues on a real-time basis, and we can have some basic governmental protection for an open Internet. They can exist, coexist, side by side, and hopefully we can put this issue to rest and, as I said, move on to other issues that frankly I think are going to move America's competitiveness and consumer benefit in a much larger way than resolution of the net neutrality debate ever will.

MR. EPSTEIN: I just want to make one quick point, too. I agree with you about the Commission's good faith and what it needed to do. The Commission didn't -- had to do this as a result of the court case. You know, they were put in a position where they just couldn't -- they had to react. And I think given that circumstance, teeing up the issues as they did, I think they've done an excellent and remarkable job on that. And now we're at the point where somehow you have to bring it home.

MR. WEST: There's a question right there.

SPEAKER: I want to quickly refashion my statement to accommodate

the new comments, but I just want to point out that talking about certainty as the primary driver of investment is a little bit of an oversimplification. I think in large measure, certainty is the primary driver for large business investment whether it's large companies investing in their own products and services or large institutional investors like the ones you were mentioning that were playing around in the public markets.

I mean, there's two sides to the investment equation: one is managing risk and the other is maximizing opportunity. And so on the opportunity side, I think that certainty is a little bit of an oversimplification. It's about whether or not opportunities exist for experimentation and business models and products and services and things like that.

And so, I think mostly in agreement with what the panel said, that developing a baseline is the right choice, but making the perfect the enemy of the good is, in fact, what will suppress what might be called the opportunity side of the investment equation. And preserving flexibility is primarily for small businesses and the kinds of investors that invest in those businesses is more important than certainty in the way that that's important to big businesses.

MR. WEST: Okay. Betsy has a question.

MS. BRADY: Hi. Betsy Brady with Microsoft. I was just curious with respect to your two efforts as you've talked to folks in the government what have their responses been?

MR. COHEN: I think there's been generally very favorable reaction to the duality of this approach. I do think there's a recognition that even with perfect government regulation, technology moves so quickly and it is so complex that government is often not the best place to be able to adjudicate disputes or to be able to provide guidance, if you will, to the way in which you execute engineering decisions. And that's an advantage of these types of extra governmental advisory or information-sharing

bodies, that there's really no useful analog in governmental regulatory structure.

So I think -- I mean, I think there is some appropriate push-back from government and from others that self-regulation can't be the exclusive answer, but that's not what the position is. And so I think as it's become clearer, and obviously positions have evolved over the last few years, but as it has become clearer that there can be coexisting roles for relative freedom from regulation, from industry self-regulation, and from an overarching governmental scheme that sets the consumer protection and philosophical goals at least at a 30,000 foot level in a fairly stark way and allow competition, the best interests of the companies, self-regulation to be able to fill in underneath that umbrella, I think there's become greater and greater comfort. Not only in the government, but within the Internet ecosystem and within many, many stakeholders that have been participating in these discussions over the past year or so.

MR. EPSTEIN: In the international arena, we've had an opportunity to speak with people, as I said, at Department of State, at FCC, at NTIA, in the White House, USTR, and I think the feeling is, you know, if the U.S. industry can coalesce around a certain series of norms in some of these difficult, you know, areas which do have an overlay of market entry and trade to them, our government thinks that would be terrific. And it's a prerequisite to being able to go oversea with our position because if we're fractionated at home and if we're all talking off our talking points, we won't make any progress. And so that's our goal is to see if we can over the next six months to a year have a fundamental series of agreements on basic points of U.S. industry.

MR. GARR: And just to kind of add one thing to that because your question made me think of something that happened during my year at the Commission. At the beginning of the year we spent a lot of time talking about the handset market, how competitive is the handset market. And at the beginning of the year, the iPhone -- you

know, everyone was waiting in line for an iPhone -- so you started to think, well maybe that's it. Maybe Apple just won the handset market. By the time I left the Commission, the Droid platform -- you know, pretty nifty, right? I mean, all of a sudden people were lining up to get Droids and now you start to see this competition unfolding.

The point is, as we think about some of these governance mechanisms, it's important to be mindful of the time series that's involved here, in that at any one point in time a market may look a certain way. But it's really important that we think about, you know, what has led us to that point and what are the likely scenarios out of that point before we start making a lot of decisions. And that's why it's so hard to keep up because in the time that we're running around doing all these meetings, the other platforms acquired, you know, like 30 million customers. And I think what we want to make sure is that capital still flows to those great ideas, whether they be large companies or small, and that, you know, the outcomes of those markets are new products and new services and that we don't lose sight of how that time series works out. Because had we sort of taken a snapshot and said, all right, you know what, the handset market, we think that should be more competitive. It was literally only like eight months later it looked completely different.

MR. WEST: Okay. Allen has a question, right here on the aisle.

SPEAKER: So taking a step back in talking about some of the issues for government roles. So a government role presupposes a government vision, a government policy agenda, and then specific actions that we can move forward with. On the international scene, there's been much made about how other countries, in fact, have this vision, this agenda, and they're able to actually go and execute that. So taking a step back and saying, well, what might this look like in the U.S.? We have the vision of openness that the Chairman has illustrated. I'm curious. Do you think this is enough?

Do we need to do more to sort of flesh out this vision? And then is this vision actually -- can it filter down to specific policy questions, specific technical questions, and how do we actually execute that? Who do we need to bring to the table to build a government position beyond industry?

MR. COHEN: So actually, I'll go -- I mean, Erik, you should talk most about this, so I'll go short and set you up. I mean, I actually think that it's underselling this administration and Julius Genachowski to say that his vision is openness. I think that is, you know, that is one element of a vision. But I think for the first time in this nation's history, we have a pretty good vision document in the National Broadband Plan.

And I think it is -- I mean, here's to me why I've always gotten a little hung up on net neutrality. I don't think net neutrality is a vision. I mean, it -- I mean, net neutrality is something -- I mean, I don't know what it is, but it's something short of a vision. I think the vision needs to be around broadband deployment and broadband adoption and the benefits that broadband can bring to America. And we can go back to a competitive environment and how it is that we best make the advantages of broadband ubiquitously available, making America the most connected nation on earth, to provide all of the benefits and competitive advantages of use and application of the Internet. Net neutrality's almost a distraction against that particular vision, and so I -- that's what I -- you know, when I say check the box, Gary says declare victory.

I think all of that should be done so that we can turn our attention to the National Broadband Plan that took a year out of Erik's life and -- well, it took a temporal year, maybe 10 years, of pain and suffering and many, many others who worked with him, and it's time for us to turn our attention to execution of that vision as articulated in the Broadband Plan.

MR. GARR: Those are certainly kind words. I like it when anyone says,

"implement the Broadband Plan." It's good stuff. And there's several others as I look -- I see John Horrigan in the third row who toiled with me long hours and several others in the room, so I don't want this answer to sound like it's my plan at any stretch. This was a total team effort and Comcast and a bunch of other companies participated as well.

But I think if you look through the Plan, you know, my own view -- again, completely biased -- is it's very clear that in the U.S., broadband is a private sector activity fueled by about $50 billion of capital investment by Comcast shareholders and others every year. That's a super powerful thing to have and as a country, it's a tremendous asset.

And that doesn't mean we shouldn't regulate it, and we shouldn't be smart about the rules for how that industry competes and what the level of competition is. But that's a pretty profound vision. Other countries view this as a state-run enterprise. We don't, okay? And, in fact, our history has brought us some pretty neat innovations around how networks work, the way that we do certain things.

I think the second part of the vision is all about how we include everybody, which actually isn't necessarily a private sector activity. It requires subsidy, and if we wanted to completely destroy Darrell's meeting, we'd start talking about universal service. But I'm not going to do that because it's pretty clear that that's another vision that is somewhat American. You know, we could take a different view.

MR. WEST: We'll do that one in the future.

MR. GARR: Right. We could say that Northern Michigan doesn't matter to broadband or, you know, pick your favorite rural area. It's my favorite.

And then third, I think the third part of the vision that's really important that doesn't get enough discussion is it's not about speed, it's actually about how we use it. And that the applications around health care and education and energy and all these

other things that we can do, that's where value's created for the economy. And that's the part of the Plan, I think, that 10, 15 years from now is going to be almost more important. Because if you want to know what moves, what changes, the GDP of the country -- with all due respect to the infrastructure providers who are certainly part of that -- it's, you know, lowering health care costs or reducing the cost to deliver textbooks to our kids. And that's a part of the Plan, you know, everybody's talking about net neutrality, but I don't hear enough talk about some of these other application issues and that's where the real value is.

MR. EPSTEIN: I also think that, you know, you talked about is there just one simple word: open Internet. Is that really it? I think there are real serious discussions going on in many parts of our government right now to try to particularize that and bring that home. You know, the Commission, as you well know, has focused on that and is implementing it with the Broadband Plan.

But, you know, I think this week comments were due in NTIA's proceeding on the Internet, and they're trying to think hard about it. I know over at USTR they're trying to figure out how they fit in. And in the State Department, you know, there are very important activities going on there. So our government is struggling with, you know, an overall comprehensive plan, but I think a prerequisite of it is to see if we can have some consensus with people putting up the bucks with U.S. industry.

MR. WEST: Okay, I think we have time just for one more question, and we'll take this gentleman right here.

SPEAKER: At the risk of casting a dissident note in the chorus of "Kumbaya" about net neutrality, Cox and News Corp. -- you're right, if you ask 10 people about the definition of net neutrality, you'll get 10 or more answers. But I think it's fairly well recognized that what happened between Cox and News Corp. is an example of non-

net neutrality. Now nobody's really surprised that when they turn on their TV and can't get to a particular cable channel either because it's not among the many of the local carrier or there's a dispute, that's one thing. But when you open your computer and can't get to a website because of a dispute your ISP and that website, that sounds like the quintessential example of non-net neutrality. Is it your feeling that that will take care of itself because of competition, that the FCC has already established the principles needed to keep that sort of thing from happening, or is that an example of where we need some regulation?

MR. COHEN: Well, I think you're talking about Cablevision and News Corp.

SPEAKER: Sorry, yeah, the baseball thing.

MR. COHEN: And the three hours -- let's -- I just want to define this -- the three hours where News Corp. blocked access to Fox content on Hulu to Cablevision customers. So with all -- I mean, I think that's a problem, so let me say that. But with all due respect, I don't think it's a net neutrality problem because net neutrality, at least as I've been involved in it for the past eight and a half years, has been about conduct by the ISP, not about conduct by the content owner. I'm just saying the content -- let's understand what that was, it was a decision by a content owner. Well, whether it was well-advised or not well-advised, it made a decision with respect to its own content and how it wanted it to be shown on the Internet. So I think that's a very different issue than "net neutrality" the way it is classically produced.

However -- and we'll go back to Erik's point on the customer and to the impact of the overall ecosystem -- this happened I think on a Saturday. I think it literally happened for three hours, and as the blogs lit up and as the reporters started to call and as customers started to complain, News Corp. reversed its position. So it literally took

three hours for the market in the broadest possible sense to correct that problem. If you were going to depend on government to correct that problem, I don't think it would have happened in three hours on a Saturday afternoon or you wouldn't have been able to have people move in to do that.

MR. GARR: But if it's your baseball team, you care about those three hours.

MR. EPSTEIN: Had it been the Cubs or the White Sox, it might have been different.

MR. COHEN: Well, actually, it wasn't baseball. This was not about baseball because baseball wasn't on Hulu. I mean, this was about the Fox content, Fox non-sports, Fox entertainment content that was on Hulu. I mean, that's what was being -- that's what Fox blocked. In fact, you could watch, if you were an MLB TV subscriber, you could continue to watch the baseball on your Cablevision high-speed data service. There was no blocking of that particular service.

MR. GARR: And I think this sort of underscores why we got to get our net neutrality ducks in a row and sort of get it ironed out because I sort of share your view that this to me is a -- and again, I'm not a lawyer here -- but this is more about an owner of content. And there's a bazillion years of law about copyright and people who own content and what rights they have around that content and what they get to choose to do it with. That's a very different issue than whether an ISP agrees to carry traffic or not. And if net neutrality bleeds into that other area, I think you can have, you know, all sorts of unintended consequences because there is tremendous value of saying that someone -- you know, that there's a -- you know, we should know by now that a property right attached to content has some value. And it's value to the economy, you know, and it's value to consumers because then we can be certain that the content that we're watching

is high quality, you know, that sort of thing. But I think that's why the uncertainty is such the risk because it is confusing and you kind of think well, is that a net neutrality issue, is it this other issue, which is why I think the sooner we can kind of get what we agree to organized and down can move on to other things.

MR. WEST: Okay. We are out of time, but I want to thank David and Erik and Gary for sharing their views and thank you very much for coming out.

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I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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