

THE BROOKINGS INSTITUTION

FOSTERING INTERNET COMPETITION

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P R O C E E D I N G S

MR. WEST: Good morning. 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 today's event on Internet competition.

We are webcasting today's event, so I'd like to welcome those of you who are watching live from around the country. We're also going to be live Tweeting the event using the hash tag #TechCTI for those of you wishing to post comments or ask questions during the event.

During the Q&A period we will take questions both from our live audience here at Brookings as well as those who Tweeted in during the forum.

The Internet has become the dominant platform for communications, commerce, and entrepreneurship. Today, it generates about 4.1 percent of the gross domestic product, and in some countries, that figure is twice that amount. By 2016, it is estimated that the digital economy will account for over \$4 trilling among the G-20 nations, which is twice what we had as of 2010.

There is little question that the Internet operates differently now than five to ten years ago. We've seen the emergence of dominant players in social media, search, commerce, and mobile devices. There also are a variety of new business models based on licensing agreements, partnerships, and leveraging strategies.

I think this raises interesting questions about how these developments affect Internet competition. We know that there are multiple layers of competition on the Internet in terms of the delivery pipes, the platforms, and the websites that provide downstream content. These levels are interconnected and what happens at one level affects competition at all the other levels.

We've seen public concern, both in the United States as well as in

Europe, about Apple's pricing policies, Google's changes in search, Facebook's social media presence, and Amazon's business practices. The question is how all this affects competition and what the government role should be in the marketplace.

Today we have put out a paper entitled "How to Maintain a Competitive Internet". There are copies out in the hallway. If you didn't get one on the way in, you can get one on the way out. It was co-authored with Liz Valentini. It looks at potential threats and what we need to do to maintain the beneficial features of the Internet.

Basically we argue in the paper that competition is good for consumers and that we need fair, transparent, and nondiscriminatory market behavior in order to gain the full benefits of the Internet.

Eric Schmidt of Google has famously argued that the Internet today is dominated today by Facebook, Amazon, Apple, and Google, each of which has a major role in particular areas, so the question is: how should we judge fair and nondiscriminatory behavior and what does it mean for competition?

To help us address these important topics we have brought in a distinguished set of speakers. Susan Crawford is a visiting -- is the visiting Stanton Professor of the First Amendment at the Kennedy School of Government. She's also a visiting professor at the Harvard Law School. She serves as a columnist for Bloomberg View and Wired.com. She's a member of Mayor Bloomberg's New York City Council on Technology and Innovation, and also served recently as special assistant to President Obama for science, technology, and innovation policy.

She formerly was a professor at the University of Michigan Law School where she taught courses on Internet law and communications law. Her most recent book, which is coming out in a couple months, is entitled *Captive Audience* and it will be published by Yale University Press.

Spencer Waller is a professor and director for the Institute for Consumer Antitrust Studies at Loyola University in Chicago, at their law school. Spencer served as a staff law clerk for the U.S. Clerk of Appeals for the Seventh Circuit. He also has worked for the U.S. Department of Justice serving as a trial attorney in the foreign commerce section of the antitrust division and later as a special attorney in the Chicago Strike Force of the Criminal Division.

Prior to joining Loyola's faculty, he was a faculty member at Brooklyn Law School. He is the author of many academic papers including most recently a paper entitled *Antitrust and Social Networking*, which is an analysis of Facebook's role in the marketplace.

Our last speaker will be Doug Rushkoff, who's a commentator on media and technology for CNN and a book author. He has lectured around the world on topics related to media, technology, culture, and economics. He is the author of several bestselling books on new media and popular culture. His most recent book is *Program or Be Programmed: Ten Commandments for a Digital Age*. I like that title, especially the Ten Commandments part. He's written and hosted several award winning PBS Frontline documentaries and he's had commentaries aired on CBS *Sunday Morning* and NPR's *All Things Considered*.

He has a new book coming out shortly entitled *Present Shock*, which is about what happens when narrative collapses.

So, I want to start with Susan. As I mentioned earlier, there are multiple layers of competition on the Internet. The layers are interconnected and each level affects competition at the other levels. What do you see as the relationship between Internet access markets and Internet business models?

MS. CRAWFORD: Well, thank you so much for having me here. I'm

delighted to be here back in Washington. I'm an academic and I think all academics should reveal who pays them when they start talking, so I'm paid by a university, I'm also a columnist for Bloomberg View and Wired, but I have no consulting relationships.

As an academic, I get to reframe the question posed by this paper, which speaks pretty broadly about an Internet ecosystem, but from the perspective of a consumer sitting in his or her living room, you're faced with the question of where to get Internet access, and Internet access is a separate marketplace, it's like the difference between the highway and the huge flatbed trucks rolling down that highway.

Facebook and Google are really those flatbed trucks, and the highway is uncompetitive, and one thing I've been writing a lot about recently is the fact that for about 85 percent of Americans, their only choice for globally relevant, high speed Internet access is going to be their local cable monopoly.

The cable companies have spent a lot of money building this infrastructure and they got the advantage of exclusive franchises handed to them by cities. It's extremely cheap to add the next customer, but the fact that they're built into 100 percent, essentially, of American homes gives them the opportunity to simply harvest from those customers prices for high-speed Internet access and too we've deregulated them completely to vertically integrate into content.

So, from my perspective, the key question for telecommunications policy these days is what to do about this. We don't see thriving competition between cable and anybody else. Wireless is a complimentary product. We've got a growing inequality situation in America where about half of Hispanics and African-Americans are depending almost entirely on smart phone access for access to the Internet, but for the rest of America and for the rich and the privileged, they're paying through the nose for second class Internet access service provided to them by the cable companies.

So, a couple cases in point. Just today I got a postcard from Time-Warner Cable saying, "You get to rent your modem from us for \$4 a month." Now assume that 80 percent of Time-Warner's customers rent modems from them. That's \$400 million a year that costs Time-Warner Cable nothing, just the ink on the bills they send to the customers.

And you, here in Washington, who love the Nats, they're just getting to the playoffs for the first time since 1933, you can't watch the Nats unless you have a subscription to the MLB bundle. And you won't be able to watch the show unless you're able to go home at 1:00 o'clock because it's all being timed for TV presentation.

So, the vertical integration of cable, their tremendous market power, our inability to either oversee them or insist on competition, is really holding the entire country back. The rest of the world is making an upgrade to fiber, but there's no pressure in America to make that national upgrade, so we've got a big policy problem, an antitrust problem, and an overall universal fiber access problem for America.

So, that's my reframing of the question. I'm delighted to talk about the giant trucks, flatbed trucks, Facebook and Google, who are all so big that they can't be acquired and are sort of tussling with each other in each other's marketplaces, but for me that's a less interesting question than the Internet access question.

MR. WEST: Okay, Spencer, you've written a very interesting paper on Facebook and social networking from an antitrust standpoint. So, how should we judge a company like that? What are the market behaviors that would worry you? Where should we draw the line at what is harmful to consumers?

MR. WALLER: Well, Darrell, thanks for having me and it's great to be on a panel with such distinguished colleagues.

So, I share some of Susan's interests but I really come from this more as

a traditional antitrust lawyer, and obviously I have to think about issues of telecommunication and other things as well, but I started my career as a law clerk and I started really thinking about issues of competition with respect to infrastructure and platforms even all the way back then only because my judge assigned me to work on a case called *MCI v. AT&T* and many of you know that that has led to, you know, really the more modern day issues that we're talking about.

And I got interested in Facebook because my daughter, who was an early teen a couple years ago, sort of said, "Dad, is Facebook a monopoly?" and I got to thinking about it and it's a much harder question for an antitrust lawyer than maybe the popular press and popular conceptions of what a monopoly is, and I think it raises similar questions for virtually any Internet-related business, platform or infrastructure.

And I'm most interested in questions of, do these firms have market power in the sense that matters to antitrust and are they engaged in any activity that would be deemed exclusionary or predatory, and you need both. You need market power and you need some kind of bad conduct before the U.S. antitrust laws and all the international analogues are involved.

So, I've been thinking about Facebook and I was delighted, I guess really a few days ago, this week, the EU has -- the European Commission, their antitrust enforcer, has talked about they're beginning to think about Facebook as well, and obviously we know about Google and we know about the past lessons from Microsoft.

So, these are the bundle of issues that I care about as sort of an international and comparative antitrust scholar.

I guess like Susan I should probably say, I'm not involved in any consulting arrangements other than I work for my university and I just teach and write in this area.

So, in terms of your specific question on Facebook, it raises a bunch of things that go beyond Facebook itself, although that matters given the importance of social networking, and in my paper in *The North Carolina Law Review* and the other writings that I've done, I'm increasingly convinced that companies like Facebook and other Internet related companies in different spaces have a meaningful degree of market power in the normal sense that antitrust lawyers care about.

That is the beginning but not the end of the exercise, but I do think that when you have the presence of network effects, lock-in, stickiness, it's fair to say that companies of this sort have a form of market power, although it's a difficult and complicated question and you have to ask, market power over what relevant market? It's complicated because from the consumer point of view, usually most of these services are free. There are other markets involving advertising where the answer may be different, whether you're talking about Google or Facebook or some other Internet-based firm.

There are markets for applications and developers, but at least in the market for consumers and at least with respect to Facebook, that you asked me about, yes, I do think it's fair, as time goes by and that high market share continues in a durable form, to think about them as having monopoly power. That's only step one.

That leads to the much harder question of what Facebook and any other company that we want to talk about today -- what are they doing that injures consumers and doesn't have a pro-competitive business justification? Those are the questions that the FTC is wrestling with in its Google investigation, it's the questions that the EU, to the extent they're looking seriously at Facebook -- obviously, they're looking seriously at it, in some form of negotiations with Google.

What are those behaviors? Well, by and large, in Europe it relates to bundling and tying of features into a suite of products. It can be restrictive conditions on

application developers. With respect to Google but not with respect to Facebook, there are questions of non-discrimination, and this is just an incredibly interesting time to be an antitrust lawyer.

We can talk about what's the right result in any particular case, but I am convinced that you need a competitive marketplace, both to benefit consumers and to benefit innovation, and I really like markets, but I don't think they're magic, and I do think that some appropriate antitrust role preserves competition for both the static benefit of consumers and the dynamic benefits that innovation brings to our economy.

MR. WEST: Okay. Doug, what should be the standard for anti-competitiveness in the digital marketplace? What are the types of market behaviors that would constitute anti-competitive practices? What should regulators look at in terms of competition -- platform competition and the affects on downstream companies?

MR. RUSHKOFF: I mean, I guess, for me -- and in terms of my disclosure, I mean, I answer emails from anybody, but none of them pay me. I'm sure I've consulted to evil, but whatever.

I'm stuck on the -- as the underlying question of how to maintain a competitive Internet, because for most of my 25 years or so of net involvement, I've been looking at how to prevent a competitive Internet and how to restore collaborative, cooperative Internet.

From my perspective, the Internet we know and love today, as well as the majority of applications and functions that we use on the Internet, were developed in a share ware economy. These were not developed by companies, but by universities and researchers and hackers who were doing it for free.

I mean, the streaming video you use today was CUCME, the email we use was Eudora, the -- I mean, I remember the moment -- it's funny, it was the same year

that Jerry Garcia died, Netscape went public and for me that was a turning point, it was saying, okay, we've let this sort of collaborative commons thing run its course and now we can do this other thing.

And I feel like the object of the game in a competitive Internet is to extract value from usage, whereas the object of the game in a collaborative Internet is to create value for other people. And so, when I look at the purpose of regulation, it has less to do with what seems to me to be the sort of peripheral activities of these corporations and more to do with maintaining the -- not to get religious on you -- but maintaining the sanctity, if you will, of the commons.

How do we protect the commons? And it seems to me that regulation has gotten so misconstrued that we have, you know, cable companies arguing that municipalities are not entitled to develop free public WiMAX Internet access because, well, municipalities have an unfair advantage against this non-local -- we don't live there, we're not amongst the people, you know, and if you go back -- this is basic Adam Smiths -- this is why he was optimistic about the economy, the economy's ability to create moral solutions was that local people do have an advantage. That's what municipalities are, that's what personhood gives us is that unfair advantage against the sort of abstract, non-local corporations who are there only to extract value.

So, what I'm interested in, and I defer to actual legal scholars on this, are the kinds of regulations that maintain the ability for people to develop languages and cultures together.

I do not believe we are creating the next generation of business innovations. I believe, as a media theorist, that we are developing the next realm of human interaction, we are developing something akin to the spoken language, right, and I shudder to think of what it would have been like back when we were developing English if

some company came along and said, well, we have the patent on vowels. So, you know, if you're going to use vowels in your spoken language, you've got -- we came up with it, right, or at least for the next 40 years or 80 years, you know, you're going to have to pay us for vowels, I think it would have stunted the development of a common language rather than promoted it.

MR. WEST: Okay. I want to throw out a question to everyone, and any of you want to jump in can do it. So, I'm going to come back to something Spencer said in kind of laying out particular things that we should be paying special attention to in order to answer the question of how much competition we have. He pointed out that the things that he, as a legal person, would emphasize would be whether companies bundle or tie features together unfairly, whether there are restrictions on app developers because everything is app oriented today, the presence of non-discriminatory behavior, use of unfair leveraging. So, you know, it seems like these are the range of things that -- what the FTC is looking at, what the European Union is looking at.

So, I'm curious, when you apply these particular standards and these particular questions, how do each of you judge the situation that exists today?

MS. CRAWFORD: Well, you know, we can really ground this in response to both Doug and Spencer here because the Netscape launch, in the end, didn't go so well, right, and so the claim left remaining by the D.C. Circuit in the Microsoft case, back in -- when was that, what year --

SPEAKER: 2001.

MS. CRAWFORD: -- 2001, was maintenance of monopoly. So, the idea that Microsoft was bundling its very market powerful operating system with Internet Explorer, not necessarily because it was efficient to do so, but in order to preclude the introduction of anything that would interrupt their monopoly in their operating system.

And that bundle was done merely to maintain the monopoly.

So, where you have monopoly power, natural or otherwise, in a downstream market -- and for me the key downstream market is distribution or the customer sitting in their living room, and you're able to vertically integrate into other markets in such a way that it raises the cost for your rivals to show up and compete with you even though you're charging too much, that's a problem and we're seeing that today in the Internet access market particularly in the relationship between cable providers, who are serving you a bundle of both sports and data, using sports as a barrier to entry for competitive fiber systems who might like to show up, charge you less for a far better service, but can't because they have to enter two markets at once, the market for programming and the market for distribution.

So, that's a Sherman Act Section 2 claim, leveraging your market power in one market to vertically integrate into another, and for all of these platforms, the question is whether the vertical integration they're going through, combining one service with another, is ending up making it impossible for competitors to enter.

And Netscape got ground into oblivion by this.

MR. WEST: Spencer?

MR. WALLER: Yeah, I think one of the themes that ties together what you heard from all of us is, you know, if you care about the commons and if you care about infrastructure, you really need some kind of regime of open access, open in the sense of fair, nondiscriminatory, not open in the sense of, necessarily, free. And I know one of Susan's colleagues at Cardozo Law School, Brett Frischmann, writes a lot about this area and really has this whole theory of infrastructure and when you need theories of open access.

When you bring it into the antitrust realm, to what extent will a company

be liable if it limits access in the sense that both Doug and Susan have talked about, you have a slightly different question. We have to be really careful because Microsoft, in that D.C. Circuit 2001 roadmap, is the roadmap for monopolization in high tech industries.

The Supreme Court hasn't had anything as general, as broad, or, frankly, as sophisticated before or since then, and the Microsoft decision is really complicated. If my flight home works well, I'll be teaching it at 4:00 o'clock Chicago time today.

MS. CRAWFORD: Oh, my goodness.

MR. WALLER: So, I'm cutting it a little close, but if any of my students are watching, here's the lesson, which is, it is about maintaining a monopoly and this is where broader theories of creative destruction come in, Joseph Schumpeter. All of the companies that are under the antitrust microscope have not been attacked for how they achieve their monopoly or monopoly power, which has ranged from innovation to dumb luck, depending on who you're talking about.

What they've been attacked for is what they've done to prevent that second wave of overtaking them, they've achieved some form of dominance and then new companies are being excluded despite the fact they're arguably better in some important way.

The bundling, again, we have to be careful about, and this points the arrow toward the EU rather than the U.S. as the antitrust sheriff for these kinds of industries. The bundling was present, but it wasn't the reason why Microsoft was held liable. Microsoft was held liable because it did a variety of business practices that could not be explained by any pro-competitive, pro-efficiency, pro-consumer justification and therefore the court concluded that because they had some exclusionary impact and no justification, that was a violation.

When they got to the pure bundling, the technological bundling of adding

a new feature to the operating system, the court said, we're going to depart from Supreme Court precedent. We think it should be judged under the broadest rule of reason, balancing pro and competitive justifications, and sent it back for a retrial on that issue that never happened because the case settled.

What that means is, the U.S. rules are relatively lenient on bundling and tying and I should say predatory pricing, and they're relatively stricter in Europe, and that points the arrow toward the EU being the jurisdiction that, in effect, sets the global rules for any industry that operates on a global basis, which most of these Internet companies really do.

So, I'm not surprised that it's the EU that's looking at Facebook, apparently, first. I'm not surprised that settlement talks appear to be farther along for Google with Europe than with the United States. I'm not surprised that more companies in the eBook space have settled with Europe than with the Justice Department so far.

MR. WEST: Though it is interesting that in general the EU is tougher on many of these activities than what we see in the United States.

MR. RUSHKOFF: I mean, the trick is -- I mean, there's two different contexts we're kind of talking about, one is people as consumers, you know, which I think the Internet shows us is just one role that people can have, right. We are not consumers, we're human beings, right, we're teachers, we're students, we're lovers, we're producers, especially online. It's digital. We make stuff.

MR. WEST: I'm worried about where you're going with these analogies, by the way.

(Laughter)

MR. RUSHKOFF: Oh, lovers, it's okay. Don't worry. I won't go there. But we're producers. I mean, as consumers, you know, you use a Google browser,

Google search engine, if you even want to call it that, I mean, it's just a hole in the top of my browser, I just put a word in, or it's the line, so then, you know, I do a New York to Washington, on October 9th, and instead of, you know, Expedia, Kayak, Orbitz, now I get this little sort of app in the search results. Have you seen this? You know, so Google made this little travel app that now I can see all the flights from pretty much everybody, I guess, I mean, I'm a consumer, I don't know about every airline. But I get this list and I can click on the flight I want and it takes me right to the American Airlines site or right to the U.S. Air site.

So, all of the sudden now, the functionality of Expedia, Orbitz, Kayak, whatever those things were that I used to use, the functionality itself is recreated in the browser. As a consumer, right, just as me consuming, I'm like, this is cool, right, this is easy, and now I've got my -- you know, maybe I will sign up for that Google Wallet or PayPal or whatever, you know, and just -- it's easier, right?

It's very hard to say, so now it's like, okay, if Google wants to maintain that functionality for me as a consumer, now they have to go prove, well, we don't have a monopoly, and don't worry, there's other search engines, look at Bing, and they're increasing their market share, just so I can get to use this thing.

As a consumer, I want to get to use this thing and I just start hoping in the back of my head, boy, I hope Google didn't do some of those same mean, anti-competitive stuff that Microsoft did so I can maintain the functionality of my browser, which is where, you know, Microsoft finally really got nailed because they could prove, oh, look at what they were saying and doing, look at what they did to poor Dell and Compaq -- we had the proof that they were doing it in a mean, predatory way.

It's like, for Google it's going to be a very different argument, sort of, how do we, as consumers, get this functionality without it being -- locking out competitors?

But that's -- we have to remember that all of the rules and things that we're thinking about to protect me as a consumer are very different and just a very small slice of protecting me as a producer, protecting me as someone who wants to get educated, protecting me as someone who wants to collaborate in the development of new technologies and new -- even new forms of content.

MR. WEST: So, Doug has raised this interesting issue in terms of the flight options coming out of search, so that's certainly an interesting question to address. There also is an emerging question surrounding mobile payments. You know, some experts worry about consumer -- about companies tying specific products exclusively to purchases through their own app store or their own payment systems, and they claim, you know, this limits competition and that it helps companies use their overall market share to gain advantage for downstream products and services.

Should we be worried about these new types of things that are starting to come online?

MS. CRAWFORD: Well, we're seeing a lot of mobile payment efforts right now. There's a sort of flourishing of people saying, well, we're going to do that for you. And actually, this is a place where I think standardization would be enormously helpful for consumers, a standard method for making payments using a mobile phone that isn't tied directly to one source of products or content, it would just be another facility that would be useful.

Right now, though, this is a really dynamic market and there are lots of big players trying to say that they're going to have market power in mobile search. You know, I want to go back to the travel Google linkage. Facebook is also an enormous player in travel and the second most popular search on Facebook right now is for travel results, and Facebook is also entering search in a big way.

So, these giants, they are like Shamu and Godzilla, they're going at each other sort of, you know, I'll take this, and Facebook even suggested it might have a phone. So, what we need to watch out for in the language of antitrust is an attempt by a market powerful platform, and first we have to define what that market is, to strangle insipient markets, to keep the status quo in place using its market power.

And so far, with all of these guys, I'm not sure I see that.

MR. RUSHKOFF: I mean, it's interesting, I think it goes a little beyond the scope of what we're talking about, but the more we see successful walled gardens and as we begin to see the emergence of what could only be considered almost privatized currencies, right, where you have not Google wallet, necessarily, but all of the things that are going to come along with that like Square and being able to swipe credit cards on peoples' phones, once we see people actually able to achieve trustworthy currency authentication on handheld devices that they own, all of the sudden, the monopoly of currency goes away.

It lets a different cat out of the bag. If you want competition -- once you start seeing competitive currencies, you've opened up a very different economic reality where you start to have -- and I'm not talking about Bitcoin -- is the tip of the iceberg in a world where people can exchange value, they can transact and not necessarily have to use the most expensive currency on the block in order to do so.

I mean, that's going to turn what we think of as competition on its head.

MR. WEST: Spencer, your thoughts on mobile payments, flight options, and some of the new things we're seeing?

MR. WALLER: Yeah, I think my colleagues on either side of me probably just know a lot more about the facts for the mobile currency, but I think it's one of these areas where the law is pretty easy and the facts are kind of hard, and you're

seeing a bunch of different companies struggling to establish some market share and in the absence of durable market power, you don't have a serious antitrust problem.

If the market tips through network effects, luck of the draw, a superior product, or anything else, then you've got a firm in a dominant position and then you begin to ask hard questions about fair and nondiscriminatory access.

Is it in a central facility? If you ever got to the point where one company, through technological means, market success, de facto standardization ends up being that digital currency, yeah, you've got some really serious legal issues, you know, at that time, but my crystal ball is kind of cloudy as to who that will be or when that will happen.

MR. WEST: So, I want to raise a question of possible government remedies, like, if there are cases where regulators view that there is a problem. There's a whole other set of questions in terms of what they should do about it. Because Susan, for example, mentioned that the Internet is a dynamic marketplace, there are fast changes that come along, lots of innovations, lots of new things being introduced.

What does this tell us in terms of remedies? Because obviously we want to encourage innovation, that's a good plus. How should regulators think about remedies in ways that protect competition without stifling innovation?

MS. CRAWFORD: Well, again, this sort of talk about *the* Internet, I think, is a little fuzzy. It's really important, again, to talk about the highway and the trucks, and Internet access is not an ecosystem, it's the wire coming into your home, it's the wireless carrier that you sign up with, and these guys have really divided up this marketplace.

So, Verizon and AT&T taking wireless, cable companies are taking the wires, encouraging cooperation between them, as you can see, today Comcast offers its subscribers \$120 rebate if they sign up with Verizon Wireless, so these are complimentary markets cooperating with each other.

And in this realm, government has a very important role to play. We did when it came to electrification of America, where there was a point where 90 percent of farmers did not have electricity at a time when rich kids were playing with electric toys in New York City. So, when we had those gross inequalities as we do today with Internet access, government gets involved giving low price loans to make sure it gets spread, government gets involved, there's a lot of gouging for electricity too.

We think of electricity today as a utility. It was viewed as a luxury 100 years ago and government got involved to make sure that pricing was fair and that there were, you know, equal facilities available to all Americans.

These are very important sort of signal functions of a state to make sure that everybody has the ability to communicate on a globally relevant basis, and we're so many steps behind that right now that it's going to take, I'd say, five years or more for the American public to realize that this is important and to get on the boat.

And my colleague here, Spencer, worked on the MCI-AT&T case. We've now seen the recreation of Ma Cell, we used to have Ma Bell, now we've got Ma Cell, and an enormous amount of market power. So, there are lots of government revenues that are relevant here -- oversight, price regulation, structural separation so you're either the highway or you're the truck but you're not both because you're always discriminating in favor of your own trucks if you're both, government assistance to people that don't have this electrification or fiber access. This is actually where the state needs to play a role as in police, fire, also communications.

MR. WEST: Spencer, your thought on revenues?

MR. WALLER: Well, like Susan, I agree that there's just a wide variety of agencies and policies that come into play here.

On the antitrust side, here's what I've been seeing, and it does come -- if

we had a real policy of separation, you wouldn't have to deal with this in the antitrust context because you would never have use of power in one market to monopolize or attempt to monopolize another.

What's going on on the antitrust side is really interesting. We have what amounts to a return of the essential facilities doctrine. The Supreme Court has kind of pooh-pooed it, but it turns out that in private litigation in the U.S. and in Europe and in other jurisdictions, we're kind of bringing it back without even saying so.

Every time the government looks at a merger, and I'll talk about Google ITA for a second because it goes back to the travel market that you guys had mentioned, that's one example, Comcast Universal is another example, and the LiveNation/TicketMaster merger is an example.

What happens is, you've got a merger or form of vertical integration that creates kind of a neat set of vertical integration and efficiency, but can work to the disadvantage of any non-integrated competitor.

So, in Google ITA, Google acquired the firm that had the software that everybody in the travel Internet space used, and the fear was that Google would disadvantage its competitors because it hadn't been in the travel space but it was clearly going that way and it had the -- it had all the software that everybody needed.

And the merger was approved through a complicated consent decree that had provisions about access, disclosure of information, non-retaliation, so that anybody that ITA was doing business with could continue to license the software. ITA had to promise to keep working on a second generation that was in the pipeline and license that on fair and nondiscriminatory terms, and it even created some interesting arbitration and alternative dispute resolution mechanisms to sort of police this after the fact.

It's one of the most interesting and complicated consent decrees I've ever seen in a merger, but I think it's the wave of the future because every time you do business with somebody who is both your supplier and your competitor, you have all these mixed incentives. And at some point, when you control the infrastructure, the antitrust laws are going to impose an obligation of treating your rivals on a fair and nondiscriminatory basis -- I'm less concerned whether you want to call that the essential facilities doctrine, open access -- but that's the wave of the future. You're just going to see more and more of these arrangements which are very, very complicated for companies that have to, on a business basis, have one part of their company that is walled off and has to sort of supply its competitors in another part of the country that competes with those same competitors.

MR. WEST: So, I want to get Doug's thoughts on the role of government and possible remedies and then we'll open the floor to questions from the audience.

MR. RUSHKOFF: I mean, I think the best role of government right now, in order to really shorten the time span required for what you're calling, you know, the public to realize what's going on is digital literacy. You know, we have woefully little digital education in America.

And if we had a digitally literate public, then they would be in the position to distinguish between what do these devices -- what are they incapable of doing and what are they not being allowed to do? In other words, when you can't connect your phone by Bluetooth to your iPad in order to -- it's like, well, wait a minute. Does it not do that or are they not letting it do that?

We are -- our inability to distinguish between those things, our ease with which we can be, you know, thrown into an artificially trumped up state of fear about venturing out for our own onto WiMAX, I mean, it calls to mind, you know, the days when,

you know, AOL used to be able to create a wading pool of an Internet that people thought was the Internet because they were afraid to go out on to Usenet. Remember? Oh, there's going to be conversations or there might be -- you know, if you spend three hours, you might download a .jpg of a naked person. God knows what's going to happen.

But it's basically digital illiteracy is what keeps us hemmed in and what prevents us from really demanding, even as consumers, demanding what it is our devices can do. And when consumers do realize, oh, my gosh, you mean this device could be a Wi-Fi, my phone could allow my laptop to have Wi-Fi, people get upset enough about it, then the judgments that promote the actual fair and level Internet space and Internet access space, they come to fruition.

You know, right now our communities really only know when cable comes in, we know how to argue for public access channels. You know, if you get Verizon FiOS where I live, there's 30 empty public access channels between CBS and CNN that nobody's even using because we don't know what to argue for, we don't know what to ask for because we're not digitally literate. So, I would think that's where to put our focus, is if you create a literate and resilient public, it's a lot harder to abuse them.

MR. WEST: Okay. Let's bring the audience into this. If you have questions -- in the very back there's a gentleman with his hand up. There's a microphone coming back to you. If you give us your name and your organization affiliation, please.

MR. MOTLEY: Good morning, ladies and gentlemen. My name is Seton Motley, I'm with Less Government. My question is with regard to government competitors to private broadband providers, first, how is it fair to tax these businesses and then use that money to create competitors to their business? And second of all, the government thus far has been terrible at executing as a broadband provider. We had \$7.2 billion in the stimulus bill. The execution of that was awful. They approved and

funded terrible plans. They overbuilt existing private competitors, which I've already referenced. What, if any, evidence do you have that they're going to do any better in the future than they've already done, which is terrible?

MS. CRAWFORD: Well, I'd love you to meet the mayor of Chattanooga, Tennessee, who is really happy that he's got the fastest fiber system in the country, and he built it on top of the electrical utility and he provides speeds that no other incumbent in that town was willing to sell. And he's getting new business there, from Knoxville, from all over the place. They've got a whole new startup culture there. And mayors all over the country are interested in doing this because the incumbents are not serving their interests.

Your exact arguments were brought up with electricity. They said that having cooperatives involved in electricity was socialism, Marxism, that it was destructive to capitalism. It turns out that where you've got market powerful actors who have a lot of money to lobby, they'll do anything to keep people from demonstrating how insufficient their services are.

MR. WEST: Actually, if we can get to some other people because there are lots of people who have questions. Right there on the aisle.

MR. LADUKE: This is David LaDuke with the Software and Information Industry Association. I think this was a very useful discussion.

I've got a question; I guess I'm a little confused. Someone mentioned a new doctrine and I think -- I just feel like there's some kind of new doctrine, this antitrust doctrine of no harm. You know, I hear two good examples on the stage, one of telecommunications where there's a potential for lock in and consumer harm and people paying more and getting bad service, and obviously the Microsoft case, which we all know very well, again, a lot of harm there, lock in, consumers being harmed, paying too

much, getting bad products.

Right now we're talking about a lack of competition or unfairness, but there's no harm. I mean, I'm just a little confused. Shouldn't the law be -- isn't the law there to protect harm -- and if we're going to talk about remedies, don't we have to define what the harm is first, actual real harm, before we move forward?

MR. WEST: So, you say you're confused. Our goal is that you walk out of here being confused at a higher level.

MR. WALLER: Well, I'll take a crack at this. I mean, I think you're exactly right. The first step in any kind of monopolization, attempt at monopolization, abuse of dominance in Europe is to find a firm with durable market power in the relevant market.

The second step, and that's what, you know, sometimes in the popular press gets lost is finding evidence of harm, and that can be normally -- in Microsoft it had to do with limiting competitor's access to the market. It can be a variety of things, but it has to be beyond just the possession of market power, which by itself isn't illegal under system of antitrust law that I know about.

So, yeah, the theory is coming up with proof of harm and then a viable remedy that makes it better and doesn't make it worse. So, you're absolutely right, that's the really important part in almost all these cases.

MR. WEST: Okay, we have a question right here in the front row.

MR. PEZNER: Jimmy Pezner, Georgetown University. I guess my question is mostly for you, Doug, but the others -- you can also chime in if you have thoughts.

The idea of the public is very interesting. I guess my question is how you would conceptualize that. Do you sort of believe in the Habermasian concept of the

public sphere? What might be the best way to get their feedback and thoughts about what they want or what they like? You know, do they even want this Bluetooth Wi-Fi set up, for example? What's the best way to sort of get their understanding and their preferences for where they want all this to go?

MR. WEST: In my four years at Brookings, this is the first time we've had a question about Habermas, just for the record.

MS. CRAWFORD: Just want to applaud Habermas.

MR. WEST: Doug?

MR. RUSHKOFF: I don't know about the idea of the public. I know about the reality of the public, right. I mean, I'm trying to condense the Frankfurt Group into this.

We're no longer dealing with a public that is in reception to the acts of companies and governments, right; we are now in an interactive era where the public and those institutions are becoming one and the same.

So, I don't believe that what we're trying to do is to increase the public's perception of what is going on, but we are now attempting -- I mean, as digital educators, what I'll call myself -- to increase the public's participation in what is going on. And as we all become actors or inter-actors, rather than consumers, the posture, the entire cognitive reception of the Internet shifts and we begin to see it as what it is, which is an extension of the human nervous system, the thinking apparatus, and our understanding of it as a marketplace or that the market should be the place where decisions about this extension of humanity are made starts to look really silly.

MR. WEST: Okay, there's a question there on the aisle.

MR. ZIMMERMAN: Thanks. Rick Zimmerman with NCTA. Chattanooga was mentioned and I just wanted to point to an article from October 4th from *The*

Chattanooga Times Free Press, very ironically named, because it's an article, the headline of which is, "EPB's Gig Service a Hoax", and it tells the story of a company called Iron Labs, a video game company, that wanted to buy the 1 gig service from Chattanooga and Chattanooga wouldn't sell them the 1 gig service because they actually wanted to use 1 gig. Apparently all the customers they have use only a fraction of a gig and ultimately Iron Labs had to go to Comcast to get the service that they wanted.

So, you know, I don't know all the facts but I saw the article in the free press, "Is EPB's Gig Service a Hoax?" I've Tweeted out a link so everyone can see that @rzimmerman.

MR. WEST: Okay, there's another question up here.

SPEAKER: Carl Seibo with NetChoice. Spencer, one of the things that you've mentioned is kind of market power and inability for new entrants to enter into the market, and some people like to throw around the term, especially in the press, monopoly, but how are we to judge and how is the government to judge what is obstructionist in this type of industry? And I'll use the example of Facebook.

Before Facebook you had Friendster, then you had MySpace and when MySpace was there, everybody thought that was going to be the king, then MySpace fell away and now you have Facebook.

MR. WEST: And so did Rupert Murdoch.

SPEAKER: News Corp is one of our members, so we still support their decision. But at the same time, you do have new competitors entering the market. It used to be you only had a like button on a page, now there's a Tweet button, a PIN button, and something else, I'm sure, and there's a Twitter hash tag up there.

So, how are we supposed to kind of look at this on a grand scheme and say, well, Facebook is now in control, when perhaps the next guy is just coming up?

MR. WELLER: Fair question. It goes back to what I was starting to talk about with this notion of waves of creative destruction. It happens. It goes back to the work of Joseph Schumpeter, who was an economic historian and simply observed in many industries this is the pattern. Much of social networking, it has been the pattern, and I'm not concerned about Facebook's rise to its current prominence, I'm concerned with what, if anything, it's doing to maintain that monopoly and prevent the next wave, whoever it is, from overtaking them as they overtook these other companies that were good, bad, and made mistakes along the way.

So, you know, that goes back to Microsoft. Nobody took issue with how they achieved their dominance in operating system, they began to look at the specific licensing terms, strategies, acts of deception, other things that prevented middle ware, competing browsers, and other things from replacing or taking over from operating system.

So, I think the law is really right to focus on monopoly maintenance, not how you got there, unless it was terrible behavior, but what you're doing to prevent the next wave from coming onto the market and allowing consumers to pick whichever ones they think is right. And, again, that's a real fact-based question, so, I'm not as worried about what is the source of the power, but what's being done to maintain it as opposed to continuing to innovate, offer good products, offer good prices, and other features that people want.

MR. WEST: We have a question right here.

SPEAKER: Hi, Darrell. So, I think Susan made her comments about wireless to get a rise out of me, so I'm going to have to respond.

MS. CRAWFORD: Who do you work for?

SPEAKER: Verizon. A wireless company. Just by chance. No, but I

did want to comment about the way competition is conceived and I think to your point too about using any dominance that a company might have a market power to prevent the next wave of innovation.

If you walked into a Verizon Wireless store five years ago, everything in that phone would have been controlled by Verizon, everything including the apps, to the extent there were apps, and there weren't that many. Today you walk in the Wireless store, you might as well have Apple in the same store or Android because many times people ask about that first.

Even if you go into a competitor of ours, that happens all the time.

So, to me it seems like you have a lot of competition now because these companies now are constraining each other to some degree. I mean, I can't, as a wireless company, do anything I want in this space anymore because I have to collaborate with these companies too and work with them. And you have four competitors, four wireless competitors. You've got competition there. And it seems to me in terms of your point about innovation and companies being able to stop innovation in some way if they have any dominance in the market, it's certainly not evident in this market. There's a lot of innovation, and in fact, the Federal Communications Commission chairman just said that we're the leaders in 4G and partly I would argue that's because of competition driving investment in this market.

MS. CRAWFORD: I have the utmost respect for (inaudible) who is a very smart and gracious man, but when he asserts that there is raging competition in the wireless marketplace, I just can't agree. We've got two giant companies, AT&T and Verizon, who are, by far, the market leaders in terms of spectrum holdings in terms of investment in towers, much more favorable spectrum so they don't have to build as many towers as Sprint and T-Mobile. They're really leaving the other two in the dust, which is

why T-Mobile feels they need to merge with Metro PCS just to try to hang on.

So, Verizon may feel constrained by people up the stack, but not by other wireless competitors, and that's the marketplace that I'm really interested in.

MR. WALLER: And I'm interested in that marketplace because it wasn't always clear that it was going to be four, had the AT&T-T-Mobile antitrust case not been brought and the transaction abandoned, it would have been three.

MS. CRAWFORD: Right.

MR. WEST: John back there has a question.

MR. HERRIGAN: Hi, I'm John Herrigan with the Joint Center for Political and Economic Studies, and this goes to Doug's discussion about digital literacy. I want to ask, you know, everybody thinks it's a good idea, it unquestionably is, my question is, how do you do it effectively? Are you aware of any models or effective means to actually develop a digitally literate population?

MR. RUSHKOFF: Um, yeah, I mean, there's two kinds of digital literacy. There's sort of digital literacy from the engineering side, which is how things actually work, and then there's digital literacy from the kind of liberal arts side, which is how do we think critically about the interface that we're using, how does this make me feel, what does this make me buy, you know, it's sort of that, but it's a little closer to reception.

I mean, I've been -- well, I can disclose something -- I've been working with a company called Codecademy in New York, which is a console inside the browser window, which kind of teaches people to code by coding. And it's not that -- it's not that hard. I mean, it's hard to be a good coder capable of going into Chase and making their thing, but it's not that hard to understand what code is.

I mean, my prescription would be around fourth grade, right after kids learn their first algorithm, which is long division, you know, the first sort of process that

you do to make something happen to a number, to say, okay, now you've learned what an algorithm is, you're a human being, you shouldn't be wasting your time doing algorithms, that's what we have computers for, and take two or three weeks and show kids how could you write a computer program that would teach the computer how to do long division. Once they've had that experience, it's just like in the old days when you put a kid on a Sony RM 440 video editor and put together their own news show, and they see, oh, my gosh, you mean that same footage could have told a different story?

Once they experience programming a computer, everything's different, right, and so then their orientation to computers changes and then, you know, it's not -- I mean, what it's going to actually take in America, unfortunately, is not an optimist like me or someone hopeful, it's going to take, you know, nine foreign hackers bringing down Citibank for three days and people go, oh, my god, you know, the Russians are painting a sickle on the moon. We've got to teach our kids digital literacy. And then just like we put calculus in high school, we'll put basic programming in high school as well. Or, you know, our drones get brought down by, you know, some Iranian children, then we'll panic.

MR. WEST: I'm more worried about the kids in Bethesda myself.

MR. RUSHKOFF: Yeah, them too. But it's not that hard. I mean, I just think it just becomes another part of public education. You know, until then, it's afterschool programs, it's creating interest either because, look, here's a skill set that you can get without paying \$50,000 a year to a college that's going to make you smart and employable. I mean, and if the economy continues its malaise, if you will, it's going to become a sure path to either employment or entrepreneurship for a lot of people.

MR. WEST: Right there on the aisle there's a question. Microphone coming up from behind you.

MR. REIMER: Yes, hi. Will Reimer from the International Center for

Line Economics. So, I wanted to kind of push back against this, because at least when you look at the long-term kind of development, especially in the wireless space, you've had increasing HHI with decreasing consumer prices, which has been a very interesting kind of new development, and also even within economics, it's been really pushing back against this idea of a structural competition, that more competitors necessarily means you get a competitive outcome.

So, I'm just wondering if you'd talk a little bit more about that and also about remedies, because I mean, to talk or at least to bring up what a previous audience member talked about, there really isn't much harm, at least that we can understand. And how would you remedy against that? So, I guess this is more for Susan.

MS. CRAWFORD: Sure, well, you know, we have this terrible inability to look beyond our own borders. In Stockholm where there's a wholesale fiber ring that's made available, that was financed by the city, there are four or five LTE competitors. And I don't have the prices for those services at my fingertips and I don't want to assert something I don't know, but I'll bet you they're getting lower prices than Americans are for LTE wireless access.

What your posing is the fundamental question, is vertical integration, which is clearly good for a company itself, because you can claim efficiencies and sort of smooth out the acquisition of content and input into your business -- are the benefits of vertical integration to a few companies, worth the burdens to society at large if those burdens exist?

So, we've already had a question about what's the consumer harm, and that's where your question is coming from as well. In America, we pay an awful lot for telecommunication services that are not as competitive as in other developed nations and are subject to little or no oversight.

So, that's the very basic point I'm making here about this need for a very hard look at telecommunications policy in America.

MR. WALLER: Can I just jump in for a second? You know, I think it's ironic that you're talking about the telecom sector because, at least to some extent, the competitive present is the direct result of our last great divestiture to the Bell system. And we live in a very different world because we created new competition at both local and long distance and had the technological advances that created wireless all over the last 30 years.

So, you know, you're right. To some extent there's more competition in certain segments, but that's a direct result of what I think is one of the great successes of antitrust, and to some extent, the remedies get harder and harder because we've basically given up on divestiture as a remedy. If we engaged in a policy at the broader level of structural separation, you wouldn't have many of these competitive problems.

Microsoft's victory was to avoid divestiture. As a result, the remedies changed and we end up looking at different kinds of behavioral remedies.

You know, think about two thought experiments. One is, what would the world look like if Microsoft had been broken up into operating systems and applications. But more interestingly, and more realistically, what would the world look like if there had been no antitrust litigation involving Microsoft? And you'd have a very different world. And I know reasonable people can disagree as to, you know, what would be better, but it would be different.

MS. CRAWFORD: Just a very short endnote on this. So, the Nixon White House advocated that when it came to cable that the risk of having very, very heavy handed regulation of the kind that Spencer's described with ITA, where you're really looking at all the contracts and trying to figure out who's getting advantage, that

was going to be so dark a future that Nixon's White House wanted to see structural separation for the cable companies. You're either a cable company or you're in the content business, but you can't be in both because it's actually very difficult to work out who's discriminating for what.

So, the remedies have gotten more complicated. We still have access in our armature to simple remedies, like divestiture, like structural separation, and for these very fundamental businesses, those may be the right answers because the lure of collaboration and consolidation is so great that it's always going to be stronger than the lure of competition, where collaboration and consolidation is possible.

MR. WEST: Right there is a question.

MR. DUVALL: Nick Duvall with Sphere Consulting. So, you talk about antitrust as a very powerful tool in constraining this marketplace. I'm curious to hear what your thoughts are as antitrust as the pervasive tool versus is it a retroactive kind of influence where a company does harm, antitrust spots it, and then there is a remedy versus a government action where you have regulations setting forth the rules of competition, and whether antitrust is a more appropriate tool in this marketplace.

MR. RUSHKOFF: I mean, for me the problem with antitrust is that they're always trying to prove monopolies, you know, so it's -- do you know what I mean? Why do you need a monopoly in order to be doing something that's harmful? So, I guess I'm more on the side of, let's create -- if we're going to work on rules, let's create rules of engagement for all players rather than waiting for someone to get -- oh, finally they're big enough so we can now yell at them or do something --or, you know, take some action against them.

MR. WALLER: I mean, we left out one side of this, which is, you know, antitrust has a lot to say about collusion in the marketplace, but when you're talking about

individual firms, the general theory is, unless you've hit some threshold of -- not size, but power, you can't do very much harm because consumers have reasonable options and can vote with their feet.

Now, I don't think it's either/or. I think the telecom industry is a perfect example. We've done it both ways. The antitrust litigation that ended in the AT&T settlement was a response to years and years of regulation and then one judge can administer a consent decree essentially regulated the telecom industry informally until Congress chose to write the 1996 Telecommunications Act.

So, it's sort of a call and response between the retroactivity of litigation and investigation and then a scheme of regulation that can work prospectively.

The only time antitrust works prospectively is when a merger or something similar is proposed and the government can say, yes, no, maybe, or change this to prevent the likely bad conduct. But, in generally, yeah, we do it retrospectively when harm can be shown or easily predicted.

MS. CRAWFORD: I mean, that may be a problem for high-tech markets because of the risks of gatekeepers foreclosing innovation just in order to hang onto their status quo even though competitive harm may not be shown, because it's too hard to define the market, they're still acting as gatekeepers, and so it's -- but Spencer is exactly right. We go back and forth between looking forward and looking backward.

And look at Europe right now trying to talk to Google and the paper today suggests that Google may be suggesting labeling its search results. Well, Google was going now more into deep personalization having a sort of Siri competitor, so once you sign up for a Google device, you'd be led down the path into all kinds of Google-related applications. Maybe that's what Europe should be talking to Google about, but instead, because they're looking backwards, they're looking at lists of blue links on a page.

You know, I'm not saying anything about whether or not Google is liable, as I keep saying they're these giants fighting on a stage, but the nature of the remedy that may be proposed there signals to me that it's hard to keep up using antitrust.

MR. RUSHKOFF: Which is why my general advice to people, right, and to consumers, is maintain more than one operating system in your life. You know, it creates a kind of discipline in terms of your file storage and the way you do things on your computer. So, you know, if you have an iPhone, then have a Linux machine or a Windows machine or have an Android phone and an Apple computer.

Once you do that, the ways in which companies are trying to impinge and lead you down strange dark corridors become really transparent really quickly. They become very apparent and you develop a kind of -- almost a digital hygiene through which it becomes a lot harder to push you down into a sticky place you may not want to end up.

MR. WEST: So, I'd like to follow up on a couple of the points that were made here, because it seems like the most challenging part of maintaining competition in the digital economy is just all the complex linkages that we see among players kind of at different layers of the ecosystem.

Now, some people have argued that networked industries are fundamentally different from non-networked industries and that, therefore, they should require a different approach to regulation, kind of, more of a hands off approach on the part of government just because it's so complicated we shouldn't do anything because it will end up creating more problems.

I'm just curious how each of you think about that.

MS. CRAWFORD: Well, that may be true at the application layer where with the click of a mouse you can go somewhere else or something else can be built.

And as the Internet is, you know, currently understood, anybody can launch a new application.

Network industries, at the dirt, pipes, wires, airwaves level, I think, are no different from any other natural monopoly fundamental industry -- utilities we've had in the past, like electricity, like the phone system.

So, there, the government role is unchanged, the sort of idea and economics of natural monopolies did not suddenly become transformed with the pixie dust of digital technology, the basic economics have remained the same.

MR. RUSHKOFF: I mean, not to get too far into creative destruction, which I suppose I don't believe in, but one interesting thing to watch over the next ten years will be the emergence in practicality of mesh networks, which are basically networks that rather than people getting access from some giant cable provider, people creating access interactively with one another.

In other words, when my modem talks to this modem talks to that one talks to that one. There's a lot of interesting developments in that area and I could see just as, you know, something like Skype eventually overtook what we thought of as traditional long distance. I mean, I could see a lot of this argument becoming moot as people sort of turn their own hardware toward one another in order to create peer-to-peer networks that are capable of doing a lot of what top down networks do today.

MR. WALLER: You know, I think we're fighting about something that's been going on since I think the Middle Ages, which is, what are common carriers and what do you do about it?

MS. CRAWFORD: Yeah.

MR. WALLER: And, you know, the response has changed over time, and what we've called common carriers or innkeepers or whatever, you know, but the

basic answer is if you think something is some form of fundamental infrastructure, whether it's a ferry boat service across a harbor or the only bridge across the Mississippi or, you know, a telecom in the old pre-breakup days, we had a response, and that is, you're a common carrier and you have to take all comers on nondiscriminatory terms and you get paid for your investment plus marginal costs plus some profit, and somebody figures out how to do that. And we've moved away from that and there's only a few other ways of moving away from that. Antitrust is one, but it's not the only one.

So, it's just a lighter form of regulation. It tends to say, we're not going to impose a rigid code of conduct on you on the outset, but we're going to identify when problems occur and go after them. So, there's a continuum of responses. But, you know, we're really back in this sort of struggling is, what are the common carriers, what's the infrastructure of today. You know, our highway system is a form of open access even if it's toll roads and you have to pay, everybody pays the same. It doesn't mean you can't have congestion pricing, it doesn't mean if you're a gigantic truck you might have to pay more than if you're a little used Prius, but the basic idea is, you know, if it's roads, you get to be on it on some terms that society sets.

We're still struggling with that. We don't have cosmic answers for it, but I really think that is the question, what are going to be the technological platforms and infrastructure that are going to be deemed common carrier so that you're going to want some either prospective or retrospective scheme to make sure that access is not unduly limited to the harm of society.

MS. CRAWFORD: And for telecommunications infrastructure, what really brings this point home and ties together everything that Doug is saying with everything that Spencer's saying is that we entrust our speech to private actors, and we do that routinely with communications networks. That's the way we do things in America.

But we can have that trust in private actors when it comes to both our speech and our new innovations because we know they're not supposed to discriminate and pick winners and losers and decide who's going to succeed and who's going to fail. That's the essence of common carriage, and it has a lot to do with not only consumer choice, also innovation, but also speech.

And right now, Verizon in the D.C. Circuit is telling the court, any form of telecommunications regulation is un-Constitutional because we, Verizon, are a speaker, we're like *The New York Times*. So, don't tell us what to do.

That's a fundamental broadside attack on the very idea that government has a role to play with communications networks. It's breathtaking, and because Spencer is raising this very important point about common carriage, it's worth paying attention to.

MR. WEST: Any other questions? Allen? Actually, on your other side.

MR. FRIEDMAN: Allen Friedman from Brookings. I want to talk a little about something that I don't think has been mentioned, and I think this is one of the few Washington panels where this word hasn't been used every five minutes, which is innovation, and the idea of platform-based innovation.

A good friend up here talked about, you know, whether or not Facebook is a -- has competition or is a monopoly but we can say, listen, there is this single platform and because of this single platform that we all use, we have -- you know, we can (inaudible) whether it's hundreds of millions of dollars or even larger, a very large, innovative economy that is building on this platform.

But it seems to me that you could take that idea, that single private actor builds a platform and go both pro-government involvement or anti-government involvement. One is, get out of the way, the market will standardize itself, and that will

create -- you know, we won't have competition at that level, you'll have competition at a higher level. Alternatively, Facebook becomes the new common carrier and therefore is as heavily regulated as, sort of, existing platforms.

I'd love to get the panel's approach on this idea of platform-based innovation.

MR. WALLER: Do you want to start?

MR. RUSHKOFF: Oy.

MR. WEST: Just have been a good question.

MR. RUSHKOFF: You know, it is, I mean, the trick is regulating platform-based innovation is really tricky because it assumes that companies that, frankly, won't be here five years from now are permanent players. You know, if you look at the stock market valuation or the original stock market -- proposed stock market evaluation of Facebook, that was basically assuming that they would be the company through which everybody did everything forever. Right? Which was clearly, as we heard before, with (inaudible) and Friendster and MySpace and everybody else, it's just not the case.

Eventually, I mean, it's fashion, finally, because the stickiness, the ability to maintain the kind of advantage that they're attempting to as a content company, which is what they are, it is minimal.

So, on some level, and I'm sure there is real cases of bad things, but on some level I get amused, you know, when people take it that seriously, compared to something like infrastructure or cell towers and stuff that's like real, because I don't care about -- I so don't care about Facebook, you know, that it's like -- I still have a CompuServe email address somewhere, right, I mean, and we really thought back in the day that CompuServe, you know, there were a few players, CompuServe, Prodigy or

AOL, it's like, which one is going to be the one.

So, I guess it sounds a little libertarian or something, but I don't look at them as having the same kinds of footholds into anything other than consumer behavior, and that's where it is a little weird is when you can patent behavior, you know, when my gesture -- a gesture that I internalize or a way of doing something that I've internalized as a human becomes the property of someone else. In other words, if friending someone becomes patented then it's like, well, that's weird. If stretching something on a screen becomes patented, that's a little strange because that's on my side of the bargain.

But I become very not worried about sort of the platform area.

MR. WEST: So, Susan, I know you're not libertarian.

MS. CRAWFORD: Yeah, well, just -- I love physical metaphors to help us ground everything. So, we're sitting on a platform, this is a platform, that's infrastructure, the street out there, Massachusetts Avenue. This platform can be taken down, in fact, it looks quite temporary right now, and the question for this economic balancing is where do you think innovation comes from when it comes to infrastructure? Does it come from the infrastructure builder? The road provider? Or does it come from people on the edge? And so far, in this country, we keep making the bet that the people walking on the sidewalk, the people going to MIT, you should meet these kids at MIT, they're unbelievable, you know, they're the ones coming up with innovation, not the people who built the street and have the interest in having their own street internalize as much revenue as possible and do a lot of dividends and share buy backs and, you know, make sure that they're hanging onto profits.

So, innovation, we believe, comes from the edge, not from infrastructure. And, although I believe our platform sitting here could be perfectly innovative given half a chance, you know, it's kind of light, it's agile, it could do all kinds of things.

MR. WEST: Spencer, your thoughts on platform innovation.

MR. WALLER: Yeah. Well, you know, standardization comes in a lot of different ways and sometimes you just have de facto standards that arise and also sometimes you have conscious standard setting organizations or more informal versions of that. And we know how to deal with that, right, where even competitors who have competing technologies or working within the same family, come together and come up with some standard that benefits us all. That could be the format for a DVD, it could be the MP3, now MP4, it can be the communications protocols for cell phones, all that kind of thing.

And we're starting to get some rules of the road from about 20 years of antitrust litigation on this, which is essentially no manipulation, no deception, and keep your promises so that if the people in a particular technological field get together, that standard setting organization as a result of having been gamed a few times and seeing other systems, has a contract that the members sign when they come in, and if you've got some technology that's in play that might be adopted, you have to disclose it, and if you don't disclose it, the good standard setting organizations essentially say, if you tricked us and we end up picking yours and you never told us, you've agreed in the contract to license it to all the members and anyone on the outside for zero royalties.

And then all the sudden that becomes a matter of contract law and maybe arbitration as to what you know and how much the price has to be, but in general, everybody plays, everybody discloses. You agree on whatever standard is chosen, you license on fair, reasonable, and nondiscriminatory terms, and you've got a quick ADR mechanism to figure that out if you can't figure out if the answer is .02 percent or .04 percent.

MR. RUSHKOFF: I mean, I think another way to look at it is, as media

evolves, what was the content in one era -- well, what was the platform, what was the medium in one era, becomes the content of the next. So, to make a long story short, we now live in a world where producing content is the consumption, is the consumptive act, right, the kid buys the camera and buys the Mac and buys Final Cut in order to make a film that they upload on Time-Warner to a Google-owned YouTube and they pay for that privilege of the thing that used to be the professional job. Right?

The content, the equivalent of content in this new realm is the platform. So, the platform development is the content creation, and the new medium is the infrastructure itself, so the level on which business and profit occurs is now -- is that platform area. So, once you start looking at platforms as content -- Facebook is the content, right, Facebook is the product, you know, that these platforms are -- the content in this -- on this next dimensional level of media use, it starts to become clear, well, who do we need regulate, and who do we need to let build stuff.

MR. WEST: Okay, we're going to make that the last word, but I want to thank our panelists for an informative discussion of competition policy and the role of government. So, I want to thank Doug, Spencer, and Susan, and thank you very much for coming out and joining us.

(Applause)

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