Audio Title: Tom Wheeler on New Rules for New Tech
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Transcript

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John Haigh: All right. Why don't we get started? If you haven't signed up for a book, make sure you do so when we get close to the end. I'm John Haigh, I co-direct Mossavar-Rahmani Center for Business and Government. We are extremely fortunate today to have with us Tom Wheeler. He can talk about *New Rules for New Tech*. And I have to give you a little bit of Tom's background.

So this is actually incredibly unique and incredibly interesting because he has served in the government. He had operated in the private sector as an investor of a startup company and he's also served in the lobbying community. So just to give you a little bit of background, he was the Chairman of the Federal Communications Commission from 2013 to 2017 in the Obama administration, so clearly, a critical point in time. A few minor issues like net neutrality which seems to be resurrecting itself as *[0:01:24] [Overlap]* house.

He, for more than three decades, he was involved with applications networks and the revolution in telecommunications as well as the cable industry and that's a little unusual. He was an entrepreneur. From 1992 to 2004, he was the President and CEO of the Cellular Telecommunications and Internet Association which is where I first worked *[0:01:49] [Indiscernible]* because I was the Senior Vice-President for merging initiatives at AT&T Wireless. And Tom doesn't know this but we an internal discussion of should we support Tom to be the head of the CTIA?

Tom Wheeler: How did you vote, John?

John Haigh: And again, Tom is up and John Haigh was – he was the Chairman and CEO of AT&T Wireless and I was one of the few people to notice that but appreciated it. And he was also the President and CEO of the National Cable Television Association, NCTA which is another major industry representative. He is the only person actually to be in the Hall of Fame for the Cable Television Hall of Fame and the Wireless Hall of Fame. He's the only person, so major contributions on multiple dimensions both as the chairman of the FCC but also in various industry association groups and then as an entrepreneur.

He has a new book out and that's what you will be able to potentially win at the end. We'll do our usual go and tell at 12:30 and then I'd open it up for questions from everybody and we'll be withdrawing a little bit for a while. So with that, Tom, you're up.

Tom Wheeler: Great.

John Haigh: Thank you.

Tom Wheeler: Thank you, John.

[Applause]

Tom Wheeler: Well, thank you, John. And I never heard that story about how you were behind the vote.

John Haigh: I was one of the many you know, one of the many.

Tom Wheeler: And I can also say that it was not a unanimous decision. But we won't go there. It's great to be here and to have an opportunity to reflect on just how do we deal with new technology and the policy issues that it triggers? I mean as John said, I've spent the last four years at the intersection of new technologies, principally new network technology but digital technologies as well and policy.

And that is reflected in large part in this book which the title is *From Gutenberg to Google* but the most important part of the title is after the colon, *The History of Our Future* because I think that the kinds of issues that we have seen historically are the kinds of issues that we're having to deal with right now.

And so we find ourselves at a terminus point in history that you know if – it's interesting, when you do – when you study history, you get to a point where history doesn't exist anymore, it's today. Every generation, every individual stands at the terminus of history which means, OK. Now, it's your turn to make history. And how are you going to do that?

And so what *From Gutenberg to Google* says is that our history has been the development of ubiquitous connectivity and ubiquitous low cost computing that over hundreds of years have moved down parallel paths occasionally tickling each other, but actually pretty independent until recently when they had sex. And people look at me and say, "Jesus. What are you… this mad line for?"

There is a one-sentence paragraph in this book this that says. "And then they had sex." Because what we're dealing with is the result of that consummation and that is everything confused and everything connects. And that's the world in which we exist today. That's our historical moment, our terminus of history and you can see it in multiple effects.

One is "What's the impact on all of us in the way we live our lives?" This is a fascinating tweet that went viral last year. The list of the things that we take for granted that didn't exist in 2003 and you go through and you say, wow, you know the largest taxi company owns no taxis. The largest hotelier owns no beds. You just go through and look at all of these. This was 4G, the last was… heck, we're talking about 5G now and the planning is in place for 6G.

These are the things that have changed the way we live our lives and at the same point in time this convergence of these two paths has also had incredible impacts on our economy. There's a pretty

good chance that the sport scores – some sport scores and reports you read this morning or financial reports and financial filings were written by robots, by artificial intelligence.

My favorite example in this kind of space is that two weeks ago, Warner Music signed a 20-album deal not with Beyonce but with an algorithm. Twenty albums produced by an algorithm. How do you keep up with this change has had an impact on Corporate America an amazing statistic 52% of the Fortune 500 companies at the beginning of this millennium at – in the year 2000 no longer exists, 52%.

And of course, we're all dealing with the fact that we've got wealth disparity at 100-year high as technology turns the economy upside down. And in the process, this – the intersection of computing and connectivity has created a new capital asset. One of the things we talk about in the book is the capital asset of the 21st century is data. This is an IDC study of data growth which is interesting in many aspects, 90% of the world's data created in the last two years.

Here's where we are now. This is the kind of exponential growth and put it in perspective. There are 39 million volumes in the Library of Congress. Every day, this reality of connected computing is producing 3 million Libraries of Congress in terms of information. And here's the real kicker. Almost half of this is generated by you and me.

You may remember this [Coughs] excuse me… cover of the economist wrote couple years ago in which they said, "Data is the new oil." Well, they were wrong. The data is not the new oil. There is a significant difference between data and traditional hard assets such as oil and that is the fact that data is inexhaustible.

There is a finite amount of oil in the world. There is a finite of demands for oil. There is a finite amount of gold in the world. There is a finite demand for gold. There is an infinite amount of data because data is used to create new products which are data products that create new data that create new products and it's the closest thing that we've ever seen to a perpetual motion in change. And how we move from an economy of fixed assets, hard assets to an economy of soft inexhaustible supply asset is one of the challenges that we have as we think about what should be the new policies.

And you all probably remember this cartoon in 1993 with the new reality on the other side. Remember I said 47% of all the data created is information about you and me. That capitalist taking advantage of this new technology have done what or wills Big Brother to Cabinet Hearing a state could only have dreamed of in terms of capturing information about the activities of everyone in society.

So one of the arguments that I make in the book [Coughs] excuse me… is that it's never the primary technology that's transformed it but the secondary effects of that technology. And so let's look at just a handful of secondary effects. One is what I called digital alchemy and we've talked about it here already. That is the idea that your personal information can be transformed into a corporate asset, that's alchemy.

It's information about you and how you live your life that suddenly has become a corporate asset. And that asset is used to create a bottleneck to control the marketplace application of that asset. We're living in a two-sided market where on one side the digital companies capture your information and then hoarded and turnaround and sell it at monopoly read kinds of prices. And it's that act of hoarding your data that gives them market control.

Another effect of this digital alchemy is to encourage tribalism in our inherent tribal nature. You know, mankind, humankind is a tribal animal. We all retreat to that which makes us feel comfortable, our tribe. And the kind of granular digital information that is collected about each of us then allows for information segregation to target us to stay in our tribe and to appeal to the messages that appeal to our tribe because the more information I can deliver to you that appeals to you and the things that you believe in, the longer I can keep you engaged, the more I can keep you engaged, the more it attacks itself.

One of the problems with this is that democracy requires overcoming the tribal instinct. Democracy requires you know E pluribus unum, right? Out of many, one requires a coming together that is traditionally been done as a result of a belief that coming together and working together will benefit us all and lift us all up. But, the trouble that we're living through right now as I mentioned a minute ago, is how technology and technology has and have not, technology skills and not skills, technology investments and not investments have created a disparity in both wealth and opportunity.

And look at these two charts just as an example. This is a chart of the – by birth year of the percent of people who end up earning more than their parents. This is going the wrong way. Fortunately, I was born right there. The other chart is the top 1% wealth share in the United States. And as you can see in the early '20s, the Gilded Age it hit a high point back down and during the '70s and '80s started going back up and we're now at a level that is the same the same kind of level that existed 100 years ago.

Into that income and wealth inequality coupled with the information segregation is a challenge as I say to this concept of E pluribus unum. But what this talks about is that we've been here before. It has always been the pioneers that make the rules. I don't care whether you are a pioneer in the covered wagon or you're a pioneer of like Rockefeller or Carnegie or you're a pioneer like Zuckerberg and Paige and Brenda.

You make the rules because you're doing a pioneering and it's an open landscape that you get to define until your actions begin to infringe on the rights of others and the public interest. And then the people through their representatives respond and create new rules. Think of the… I talked to you the industrial precedent. In the Age of Agrarian Mercantilism, there was one set of rules. There were concepts as to how the world operated that were no longer sufficient from the Age of Industrial Capitalism.

And so we struggled as a society to come up with just what will be the rules that are appropriate for industrial capitalism. We came up with antitrust, consumer protection, worker protection, rules that established guard rails for the protection against the excesses of capitalism. Now let me pause here and say I am a capital C Capitalist. And one of the things that we forget is that at the same time,

those rules were being created, there was huge push for various other isms, communism, socialism, fascism.

There were riots in the streets. There were people dying in pitch battles over these. So we should not be surprised that we see arguments like this beginning to develop today because our question comes as we move from industrial capitalism to internet capitalism. How do we need to change the rules to reflect the new realities such as the fact that the asset that is at the core of the economy is inexhaustible yet it can be hoarded to create bottlenecks?

So our challenge becomes how we move [Coughs] excuse me... from industrial capitalism to internet capitalism and rules that can – that by establishing guard rails, again, for the inherit incentive to excess that is what makes capitalism successful? It still is the fastest way to get growth and innovation and products, and services but how do we put a guard rails on it to protect society and in the process to protect capitalism?

So I talked a minute ago about the two-sided market and that's basically what's at the core of internet capitalism. Let's look at the two-sided market for a second. In so far as getting data, they recorded your data and my data through a – free services as bait which then allows them to get in and get even more from not just you but your friends. And it's a function that is exasperated by network effects, the law of network externalities, right, that you want to be on a site where your friends are.

And you know that's called network effects. The classic example of a network effect was the fax machine. One fax machine was of no value until there was a second fax machine. And when they were N plus one fax machines, the network effect took over and they were of increasing value. That's exactly the world that we're existing in right now.

And we see two types of network effects. One, the direct effect of "I've got to be on Facebook because that's where my friends are." And the indirect is "I want to use Waze because Waze has more people providing information that will help me get from point A to point B." So network effects are driving the data into the new digital companies where you can also enjoy good old-fashioned economies of scale.

One the other side, the data gets aggregated in such volume that it can identify it has incredible granularity in identifying us. Somebody described it to me the other day as the signal to noise ratio is awful. There is far more noise than the signal that valuable piece of data you want. But the fact that you can get through the noise to get to that data using algorithms creates this incredible capacity of granular identification.

But it also creates, as I was saying before, competitive issues that if you are the only party with that kind of granularity, you can turn around and get monopoly rents or you can prohibit new competition. So let's just talk about that for a second. Mark Zuckerberg beat Myspace in a good old-fashioned 20th century "My product is better than yours" kind of battle.

Today, despite the fact that… Myspace by the way was owned by Rupert Murdoch. And today, with 2-1/2 billion users, you couldn't get there to compete with Facebook because the asset that people buy that creates you revenue stream that creates your business model, you're starting from a cold start and Zuckerberg has got data on 2-1/2 billion people.

The other competitive issue is that of data augmentation, and Jeff Bezos is the champion of this, which is "I know what you're buying and let me see if I can take advantage of that." Then if you read Michael Connelly books, Harry Bosch. Anybody watch Harry Bosch on Crime? Well, I love Harry Bosch. He's an LAPD. Michael Connelly has written 23 novels about this LAPD cop.

And one day, I'm sitting at – I believe it was turned into a crime, a crime video. The third season starts at the 19th of April *[0:27:07] [Indiscernible]* the days. And so I'm sitting with Michael Connelly, the author one time at the studio and I say, "So tell me the story about getting on Amazon Prime." And he said, "Well…" He said, "I had sold Bosch to Paramount and it was sitting in a rework for a dozen years and I finally sue to get it back. I had a big fight but I got it back and I said to my agent, take me to Amazon and Netflix."

And it happened to be that Amazon was the first appointment. I had no more – been sacked down in the – for the meeting then Amazon says to me, "We want to buy Bosch and make a TV series out of it because we know who buys your books. And the people who buy your books are prime candidates..." being used that word for Prime, Amazon Prime. "And they won't be able to watch Bosch on TV unless they're Prime subscribers." And a Prime subscriber buys three to four times more merchandise than a non-Prime subscriber.

So Mike turns to me and says, "And so I sold Harry Bosch so Amazon could sell *[0:28:33] [Indiscernible]*. But that is the data augmentation that is done to scale. Amazon today has 500 private label products because they see what's selling and they say, hey, I can make that and get the margins for myself rather than the show.

All of this creates great high margins, wonderful opportunity to extort monopoly rents and to have high margins. And in traditional economic theory, high margins attract competition which then should drive the margins down as the competition comes in. But the asset that is necessary for that competition is dominated by the gate keepers who are enjoying those high margins. And that's our new economic reality.

Dealing with that is something that the rest of the world has outpaced us on it. This is a copy of the report that Jason Furman did for the UK government. And you know with which proposed a clear set of structural rules to limit any competitive actions and reduce structural barriers. It is a terrific report. We have come close to commissioning something like that. We're making those kind of enquiries on a formal level at our government.

This guy is the head of Antitrust Enforcement in Germany. He's using the Antitrust Laws to get at some of the issues associated with the dominance of controlling data. And his argument – and so he's going against Facebook for a violation of Antitrust Laws because you – they have 80% market share in Germany. And because of a network effects, he says, "German citizens don't have any

choice but to sign up for Facebook." And therefore, they must submit to Facebook's coercive rules that say, "You'll give us all your information or you won't be able to use our service or benefit from the various features of our service."

Here's a surprising thing. The House of Lords, that boy up there was ever a group that was known as a forward thinking organization as the House of Lords, right? The House of Lords just came out with the study on *How do you regulate digital world*. And this is a copy of what the EU or what an EU panel of experts just put out last week. So other nations are leading the debate, leading the discussion as to what the solutions or what the new rules ought to be how you – how you move from rules to governing industrial capitalism to rules that govern internet capitalism.

And then Mark Zuckerberg, a week ago, Saturday, publishes – Sunday… publishes and Op-ed in The Washington Post saying, "We need rules. And here are the four rules that we need to go out and make sure that we get. The first two are about the use of information. The second two are about the privacy issues." And Mark Zuckerberg, the pioneer who made the rules is now saying, "We need new rules." I like Mark a lot. But I think that we can't be taken in by what he has proposed because I think that what he's done is proposing shiny bauble that is designed to distract us from the real issue which is marketplace dominance.

Let's worry about impact on elections. Let's worry about how we determine if there is an appeal process for taking hate speech down. GDPR is already affecting all of us because we're all interconnected and it includes data portability by the way. So what the hell, let's just have data portability for everybody. So his sudden "Oh, I'm all for regulation," actually, there may be less there than meets the eye and it's a terrific redirection ploy which leads us to the question of, all right, is antitrust a solution to this?

Elizabeth Warren if you know has her own break up the big tech companies proposal. I've always seen antitrust as a Trego test. There's three different ways of looking at antitrust. One is the regulatory application of antitrust. I tried to do this when I was at the FCC. The open internet rules that John referenced the House overwhelmingly passed to put back into effect yesterday.

The open internet rules are about applying competitive concepts to what our traditionally local monopolist in the broadband deliveries. So you can apply antitrust concepts in a regulatory structure. The second point on the sphere for antitrust is merger review and we have been doing a very good job of that lately. But we need to have a new look at just how much are we going to allow the dominant companies to become more dominant by taking out potential competitors and fully and strengthening their position of incumbency.

And in the third is the break up, the Elizabeth Warren solution. Hell, we did it for phone company and then we talked about doing it for Microsoft. Let's break up. The difficulty with break up it seems to me is twofold. One, it is an incredibly long process. From the filing of the AT&T lawsuit to the break up of AT&T was 10 years. And at this pace of change that we're living through right now, you get to the end and you may be deciding something that isn't a real issue anymore. But besides, you've gone for 10 years or 5 or 6, whatever it is without any kind of resolution

Second problem is that for the last 40 years, American jurisprudence led by the Chicago school, also called Chicago School of economic thought is that antitrust should be based not on the traditional brandizing in concept of what's the impact on the market, but what's the impact on the consumer? And you say, "Well, it probably make some sense." And the way in which you measure the impact on the consumer is by price.

Oh, wait a minute. When everything's free, how do we decide the impact of price and consumer welfare? Today, there is a majority of the Supreme Court which is where antitrust law is made that is of the Chicago school philosophy. And it's a very real question I think as what you could go through this 5 or 10 year process and get an affirmative decision out of the Supreme Court.

So, where do we go from here? Let's pick up where we left off. I just published a paper at Brookings today called exactly this, *Break up versus Break open*. And it seems to me that we need to keep pushing the idea of applying antitrust laws and should things be broken. But the other question is let's look at the asset that allows that market dominance in the first place.

And as we thought, that asset is the control of information. It's the hoarding of information in order to keep it out of the hands of potential competitors, to keep it out of the hands of… You wonder why the local newspapers are having difficulty, 45, 48%, 48% of local digital advertising is done by Facebook and Google despite the fact that they're not in the local community. They know more about your neighbors than those companies operating in the consumer, so – in the community. So how do we come to grips with that data? And I think one of the answers is to break open that data.

In 1956, the Justice Department required the AT&T which was then the largest company in the world open up patents. They were sitting on patents. I'll give you one example. AT&T's Bell Labs had developed the answering machine, magnetic tape answering machine. And it was killed because they were afraid if people could leave messages, they wouldn't use their phone as much and we wouldn't be able to get as much revenue out of our phones.

It wasn't until the patents were opened up by force by the government. But suddenly, we all had access to voicemail and recording. William Shockley, who is really the father of Silicon Valley and the inventor of – got the Nobel Prize for semiconductors said that the integrated chip, semiconductors, the growth of Intel and Fairchild and companies like that is made possible by the fact that AT&T was forced to open up the patents they were hoarding.

Cellular service, same kind of story, on and on. So the question is how can we today benefit by opening up the asset? And one of the things that Jason Furman proposes in his report to the British government is exactly this. It turns out that in the UK, the top nine banks are now required to open the data on their subscriber – on their users, their customers to third parties for the creation of new services. And there are 200 companies that have now lined up.

The bank still has the information but Tom startup has access to that information. I can go to you and say, "I got a better widget than the bank does, come do business with me." And this hurdle that we've talked about before, the cold startup problem that don't have the data with which to compete doesn't exist anymore. So, and it gets one approach to new rules for new tech.

Another is to go back 600 years and to rediscover and reapply the British common law concept of a duty to deal. As we were coming out of the Feudal period, British common law developed the concept that, for instance, the guy who ran the ferry across the river had to take all comers, didn't have to take them for free but he couldn't say, I'm sorry, you don't get to ride on my ferry. It was in the central facility, he had to take everybody.

The reason I have the picture of that old Tudor Inn there is that the same concept applied to inns and taverns that you had to take in the traveler. You had to provide shelter and food. It was the concept of open access which is very similar to what we're talking about over here which is also at the heart of the open internet rules and net neutrality rules which is the duty to deal.

Similarly, I think that there is another common law concept, the duty of care that companies need to operate under. Given the reason I have a steam locomotive here and the stories in *From Gutenberg to Google* is that when… In the middle of the 19th century, when railroads first started going across fields, farmers' fields throwing hot cinders out of the smokestack and setting on fire barns, houses, hayricks.

The railroads were not exercising a duty of care. The duty of care is to anticipate what an effect might be and establish means for its mitigation. So they put a screen across the top of the smokestack and they exercise the duty of care. Out of the duty of care comes the concept of negligence, comes the concept of fiduciary responsibility. All of which we'll need to make sure exist today, the GDPR that Zuck– embraced his… these kinds of duty of care provisions.

You can't have coercive collection, "I'm not going to provide you service unless you agree I can rape and pillage all your information." It says privacy by design. You got to think in – you got to think about what you're doing that affects privacy at the outset and you collect only what's necessary and you project that data. Those are the duty of care kind of concepts.

So we've got – so you've got a structure here for conceptually how you would organize rules for internet capitalism, then you got to worry about how do you oversee that. I'm a born again regulator, all right. The – we have to rethink how we do regulation that the regulatory process is one that is rigid, bureaucratic rules-based and indeed does disincent innovation and improvement. But we shouldn't be surprised.

When was our concept of government established? I know it's established as the response to internet – I'm sorry, from industrial capitalism and it stole, appropriated the idea, the management ideas that were ascendant at that point in time. And how did management work in the industrial era? Well, you had a guy in the floor who followed a set of rules to – as the truck came by – to do whatever he was supposed to do.

And then you had a supervisor above him who watched several of the guys on the floor to make sure they were following the rules and had his own set of rules. And then he had a manager above him who looked at all the supervisors to make sure that everybody was following the rules. And we're

surprised that we have the rules-based bureaucracy in our government? No. We just took those structures.

As John said years ago, I ran a software company. We used to have rules-based building of software. It was like building a Ford truck. You do this and you do this and then you do this and then you do this and boom! It rolls off the production line. In this case, we called it the waterfall. It falls off the edge of the waterfall and it's done.

Today, software is never done, right? You're always getting updates through your iPhone, through your iWatch, through your Windows operating system because software is constantly having to adapt to what is going on. That's called agile software development as opposed to the waterfall approach. How do we get agile government? How do we get government that doesn't inhibit innovation for rigid rules and processes, but at the same point in time has the ability to step in and speak in behalf of other than market forces – marketplaces?

I tried this three times when I was the chairman of the FCC in three different proceedings, the open internet rule, privacy rules, and cyber security. All three have subsequently been repealed by the Trump administration. But my concept was how do we establish bright line concepts and then allow judgment inside? And the companies said, "Oh, it's terrible because we don't have any regulatory certainty. I don't know what you're going to do."

They would also come in and say, "Oh, you can't have this kind of strict rules because that's too limiting." So it's on one side strict rules are limiting and on the other side if you don't have strict rules that's not good either. The rule messages actually leave us alone but we need to establish a new approach to how we oversee the market. And again, Jason in his report to the British government begins to flesh out this kind of an idea.

So we need to go back to old common law concepts. We need to be aggressive in our application of making sure that things are open, both our networks and the services that use our network and we've got to have a structure that a regular – the regulatory oversight that is flexible enough to deal with the rapid pace of change. And I've got to have… I got to close with… best words of all, right? I've got to close with a plum to the book for – I'm not sure you got a copy of the book yet.

But here's the conclusions we walk out. If we consider the history of our future, agrarian mercantile policies were inadequate for industrial capitalism just as those rules need to be updated for internet capitalism. It wasn't a clear cut answer. There were the huge fights I talked to you about, about all the isms fighting against each other. It didn't happen overnight. 1887 was when the first Federal Regulatory Agency was created, the Interstate Commerce Commission. It wasn't until 1905 that it really ever had the authority and became effective.

Thanks to TR. We've got to hammer our way at this and it's going to take time. And we need guard rails on the excessive instincts that allow capitalism to – and allow capitalism to flourish while protecting competition, consumers, and workers. And we got to say even Joseph or even – Joseph Smith – even Adam Smith, the father of the invisible hand of the market said you've got to have a set of baseline rules.

You got to have a set of baseline rules and we've got to have that debate. And that's what we're now beginning. Interestingly enough, it's being led by the rest of the world because of the fact that we have not had the political will ourselves to step up good ideas forward. So, thank you very much.

[Applause]

Tom Wheeler: Yes, sir?

Participant: Who, me?

Tom Wheeler: Sure, you. Why not?

Participant: OK. You know I went to school here but I'm going to go back across the river and ask you the question of what do you think of the notion of water as the new oil?

Tom Wheeler: Water is the new oil. Are you leading me down the path to therefore it needs to be a utility because it is in the sesame for everybody?

Participant: Oh, my – the information I have that a lot of people with a lot of money have invested and it was called the *Aqua Park [0:53:22] [Phonetic]* in South America and including the bushes.

Tom Wheeler: I'm not smart enough to answer the question. But it seems to me that there is a finite amount of water in the world. You know there is a…

Participant: That's available of using.

Tome Wheeler: There is a process that creates like the water…

Participant: Or you would say data is the new oil. So I couldn't help those – the last time I heard, this is the new oil.

Tom Wheeler: Interesting. So is water. I have… Thank you. I have heard it. Yes, ma'am?

Participant: Can you say something about how agile regulation squares with roll back of regulation networks here in *[0:53:59] [Indiscernible]* in this country?

Tom Wheeler: Yeah. It doesn't. The – you know Ronald Reagan gave us the law and the government has the solution to the problem and we have 40 years since then been living under the regulation is bad regulation, it is the regulation, et cetera, et cetera. The – there are – there is a need for regulations to change, rules and regulations change. We need the companies who are regulated to believe that as well. Because if you don't, then the odds are you'll never get it through the Congress.

Interestingly enough, I wrote a piece for Brookings a few weeks ago in which I begin like by quoting Oscar Wilde, *[0:55:07] [Indiscernible]* is one of the characters saying "There are two great tragedies

in life: not getting what you want and getting it." And the companies, the digital companies at least I used to regulate have gotten everything they wanted and they're discovering why Adam Smith was right and they needed the basic rules. Because what's happened, there is a US federal void that is being filled by, first, the states.

California has fabulously strict privacy law and 36 states have some kind of net neutrality law since the federal government walked away from it and by foreign governments. That slide I showed about how the rest of the world is taking the lead and you know I have no doubt and I was fortunate enough to work with a bunch of those European regulators in particular. I have no doubt they're doing it for the best of purposes and also have in the back of our – of their mind that this is going to help us against those American tech giants they put on news.

And so there is a consequence of having this kind of avoid. And what we're seeing now interestingly enough is that the companies are beginning to say to Congress, "OK, go ahead. Let's have privacy legislation." But let's define it our way. And the first thing is we have to preempt the states so that they can't do anything and then I want you to do it with empty bag in terms of everything else. So the debate we have is, OK, what's going to be in the bag? But I think we're at that point. Bill?

Participant: This is very interesting. One of the themes here is that monopoly is bad. And I think about Amazon for example and I have a lot of things that I would like to buy and I go to my local stores and they don't have them.

Tom Wheeler: Mm-hmm. Totally.

Participant: And I go to Amazon and they have them and then they sell them to me and they charge me high prices and I'm very happy.

Tom Wheeler: So I wouldn't – I won't subscribe to your first statement. I'm not trying to say that monopoly is bad. I am trying to say that excessive market power is something that there ought to be rules constraints. And yeah, hey, we've got monopolies throughout our life for which there are rules that govern them you know. We heard today that Amazon has thousands of people listening to Alexa and what you and I say in our house, OK, that is picked up by Alexa for the purpose of improving speech to digital.

I'm sure it's for that purpose. There are also a few other things that come out of it as well. How do we put the rules in it? I mean I want to go back. I am capital C Capitalist. OK? But we got to protect capitalism too because otherwise, the answers are going to be other isms but I'm not sure. Good point. Sir?

Participant: You mentioned break up and break open, I'm getting the sense that you prefer break open than break up.

Tom Wheeler: Yes.

Participant: And my question is do you think those – the tech giants like Facebook, Google should be broken up and what kind of conditions?

Tom Wheeler: So, I think that the better way to take care of Facebook, Google, et cetera is to make sure that the information that they are hoarding becomes interconnectable. What's the secret of the internet? The secret of the internet is that incompatible networks were made interconnectible. OK? So the networks, the secret of the internet is interconnection of networks.

It seems to me that we also need to be thinking about the interconnection of the data that rides on those networks. And that's a faster way to get to the issue and by opening up access to what is the key essence. Yes, ma'am in the back, they'll come to you.

Participant: Thank you.

Tom Wheeler: Yes.

Participant: Thank you so much for the talk. I am interested in your opinion of as more – I mean as a lot of these companies are active in the cyber internet space get more powerful, they are standing into the physical space, specifically infrastructure, innovation, and internet. For example the recent Facebook proposal on building internet structure in Africa. Do you believe… I would like to learn about your opinion that you believe that the structure works should be something that should be done by the government or should be – where it could be that is something to commission to?

Tom Wheeler: I would be… It should develop *[1:00:40] [Indiscernible]*. You know the largest provider of submarine cables in the world is Google. And Facebook has a project under way right now to come up with new standards for communications network. They're open standards that will help facilitate them at the same point in time. You see – so you see H companies like Facebook integrating down into the stack and you see network companies like AT&T integrating up into the stack which is why we need to focus on what's the core data and what's the effects of using it. Yes, ma'am in sunglasses.

Participant: Thank you. My name is Jenny *[1:01:27] [Indiscernible]* and I'm very grateful to be here to have heard you. I actually came because I was hoping you could comment on the critical issue of *[1:01:35] [Indiscernible]* about it. I know, of course, I know it's *[1:01:40] [Indiscernible]* so I'm aware of that.

Tom Wheeler: So, you know I spent the first four years in the Obama administration on the President's Intelligence Board. It's a fascinating place to be where you see an awful lot of really interesting stuff on that specific *[1:02:01] [Indiscernible]*. And the reality is that networks have always been in a tech factors. OK?

The Indians that grew up and even Americans that go around here would use the pathways of animals to go exactly the rejection of you know… Caesar use rules to conquer the world and we're sitting here being surprised that the pathway of the 21st century, its movement as an attack factor. It

is our fault because we didn't step up proactively. You're always going to be playing catch up ball. I call it Whack a Ball, right?

The game at this carnival where you're hitting the things that are always… You're always going to have to be responding. But where are we in terms of trying to get out on the front? So first, one of the things I did at the FCC. We were the first country in the world to make 5G spectrum available. And I said as a condition of that, the 5G standard had to have preemptive cyber security protections built in as a part of the standard or it weren't be allowed in this country.

And then I open what's called a Notice of Inquiry in which I said to all the smartest people in the country, and tell us how to build those standards. The minute the Trump FCC came in, they killed both of those. Now we're all running the rest. "Oh, 5G cyber security! 5G cyber security!" Now, I'm not sure if this – whatever solution we could have come up with would have been – I'll guarantee you, it would not have been perfect. But it will be better than nothing. And our problem is that we know this is what happens and we choose to ignore it or do things too late. Yes, ma'am?

Participant: Thank you for being here. So, is that what you're trying to propose you know stuff with regulation that was kind of like *[1:04:24] [Indiscernible]*? If you're advising CEO's in big tech companies who wanted to contribute on being a constructive force in creating these rules, what would you suggest them do that would not be turned around *[1:04:36] [Indiscernible]*?

Tom Wheeler: Great question. And I actually wrote a paper on that here at the Kennedy School. And the thrust of my paper was "Quit opposing. Get behind things. You're going to have thing imposed on you so you better figure out what you can live with and become a leader pushing for that." So I commend Mark for what he did. The commentary that I did on it starts by saying, "Hurrah for him for doing this. He just didn't go far enough." So I think it is inherent upon companies and in their own self-interest to step out and say something other than no, no, no, no, no, no, no! Yes, ma'am.

John Haigh: Last question.

Tome Wheeler: Last question. Oh wow!

Participant: *[1:05:35] [Indiscernible]* …complicated and since that – so you mentioned how Europe seems have taken the lead on trying to make use of data and it seems like their approach… so they're following this one base on data privacy. Would you suggest to use data in the connectivity or data, you know, it's about sharing data not about protecting the privacy of the users. There's a very different approach.

Tom Wheeler: Great, great point.

John Haigh: Could you repeat that?

Tom Wheeler: So, I might – did I shut you off? I will – if you have the rest or more to your question but I – you're raising a terrific point.

Participant: Yeah. First, that and so how do you respond to that? And then also, if I – with data most people move, it's difficult to regulate these issues only nationally. So, just how do you…

Tom Wheeler: It's difficult to regulate international, you say or nationally?

Participant: Well, nationally only because it has what – a limited scope I mean, so.

Tom Wheeler: Yes. So her first – the first part of her question was a concerned about privacy and when you open up data, do you create a privacy threat? Yes. OK? So we have to say, all right, what are we going to do to mitigate that? I mean our choice is to sit here and say, OK. This is fine. Let's just let this go on. Or to do something knowing that for every action there is an equal of opposite reaction, right? And so how do we say, yes, we have to have open data. But we also have to make sure that it's not an invitation to Cambridge Analytica version 345. OK? And you can do that. That's a – that is a consent and software algorithm kind of issue I believe.

Secondly, you appropriately say that Europe has taken a lead because they have a different view of privacy. We don't have privacy as a right in this country, as a guaranteed right in this country. It's not listed in our in our Bill of Rights. We have our privacy derivative from the Griswold Supreme Court decision which means that it can move like this. Whereas in Europe, in order to join the EU, you have you to sign the Universal Declaration of Human Rights which has privacy as a human right that must be protected.

So we are coming from a weaker position in order to be able to *[1:08:06] [Indiscernible]* because first, we have to solve the problem of what are the privacy rights and how to they exist? But, good question. John, thank you.

John Haigh: I apologize. I have to leave to go teach across the street, the river so don't take it as a sign that I've offended by what Tom said. And with that, we'll do the book *[1:08:26] [Indiscernible]*. Scott, do you want to *[1:08:29] [Indiscernible]* that. And again, thank you all for coming. And thank you, Tom.

[End of transcript]