

# TPI Aspen Forum Roundup

Your guide to the 2021 Aspen Forum



Photo by Jonathan Zuck

## About This Year's Forum

This year's TPI Aspen Forum looked a lot different from past Forums, but we were pleased to offer a packed schedule in a safe environment.

We made health safety a priority by requiring all attendees be vaccinated, have a negative COVID test, and wear masks indoors, as well as holding meals and working groups outside. Safety precautions went off without a hitch, and guests were still able to enjoy great programming and those magical Aspen views. To relive the experience, explore this flyer.

**SAVE THE DATE!**

**TPI ASPEN FORUM 2022**

**AUGUST 14-16**

[www.tpiaspenforum.tech/register](http://www.tpiaspenforum.tech/register)



TECHNOLOGY  
POLICY  
INSTITUTE

# Table of Contents

Our roundup features 3 key takeaways from each discussion, along with corresponding clips from our speakers. If you'd like to navigate to a specific panel, simply click its title below.

<a href="#"><u>The Government's Role in Promoting Science and Technology</u></a> .....	4
<a href="#"><u>How is the US Reshaping Antitrust</u></a> .....	6
<a href="#"><u>A Discussion With Facebook Oversight Board Members</u></a> .....	8
<a href="#"><u>Media Industry Winners, Losers, and Policy by 2025</u></a> .....	10
<a href="#"><u>Fireside Keynote: Charlie Ergen</u></a> .....	12
<a href="#"><u>How Should We Spend \$100 Billion on Broadband?</u></a> .....	14
<a href="#"><u>Fireside Chat: Chase Koch &amp; Dr. Maurice Ferré</u></a> .....	16
<a href="#"><u>What are General Counsels' Major Policy Priorities</u></a> .....	18
<a href="#"><u>Fireside Chat: Noopur Davis</u></a> .....	20
<a href="#"><u>Does China Need the West?</u></a> .....	22
<a href="#"><u>A Discussion with North American Telecom Regulators</u></a> .....	24
<a href="#"><u>Media Coverage Roundup</u></a> .....	26
<a href="#"><u>ConverSketch Graphics</u></a> .....	27
<a href="#"><u>Our Supporters</u></a> .....	29

# Panel Summaries: 3 Key Takeaways from Each

**TPI** | TECHNOLOGY  
POLICY  
INSTITUTE

#TPIASPEN2021

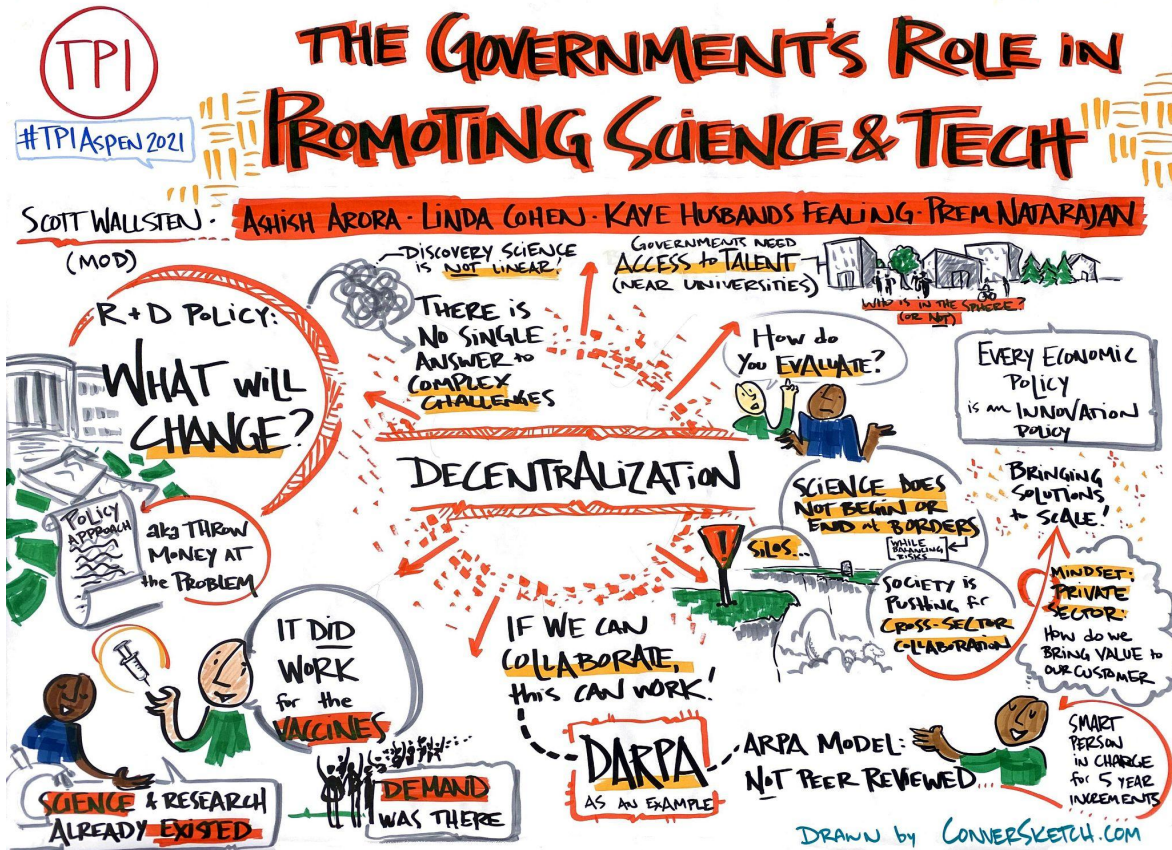
WELCOME to the 2021

ASPEN FORUM

AUGUST 15-17, COLORADO



# The Government's Role in Promoting Science and Technology



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: The Government's Role in Promoting Science and Technology



Ashish Arora

Senior Associate Dean for Strategy and Rex D. Adams Professor of Business Administration, Fuqua School of Business, Duke University



Linda Cohen

Professor of Economics and Law, University of California, Irvine School of Law



Kaye Husbands Fealing

Dean, Ivan Allen College of Liberal Arts, Georgia Institute of Technology



Prem Natarajan

Vice President, Alexa AI and Head of Natural Language Understanding, Amazon



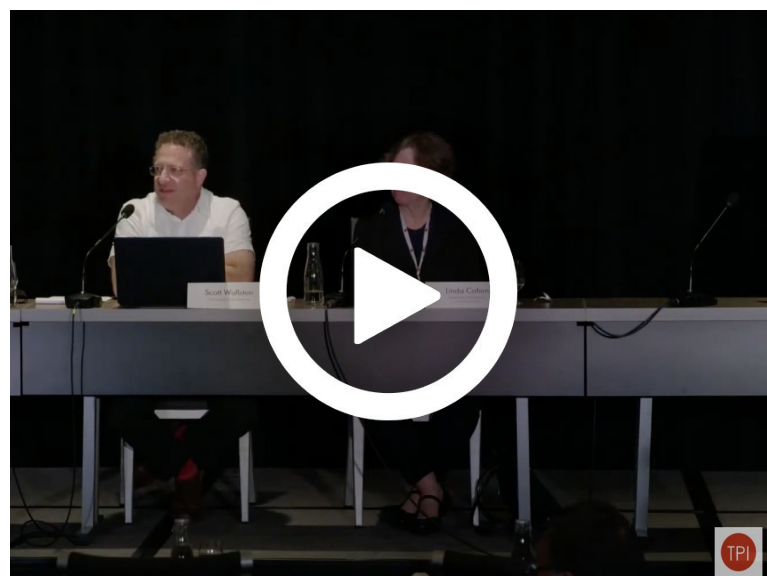
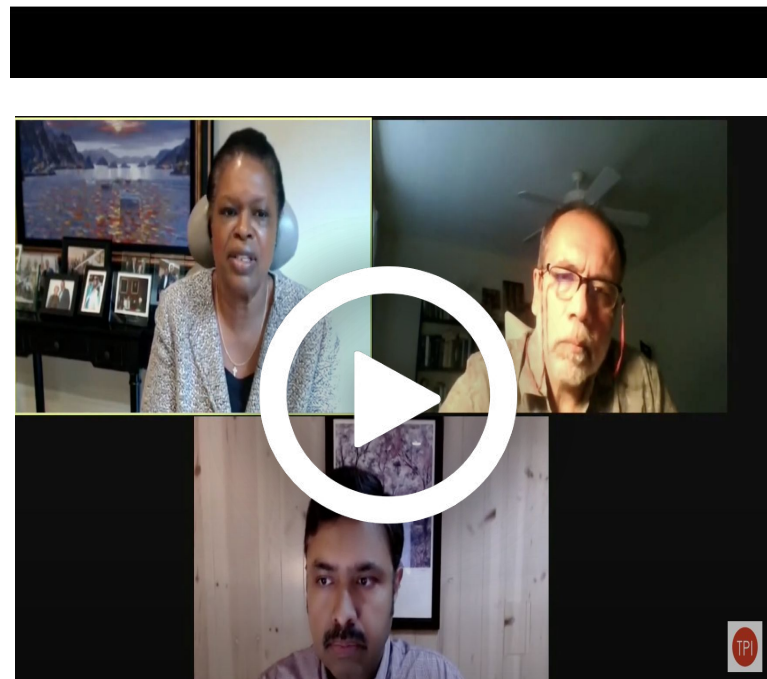
Scott Wallsten (moderator)

President and Senior Fellow, Technology Policy Institute

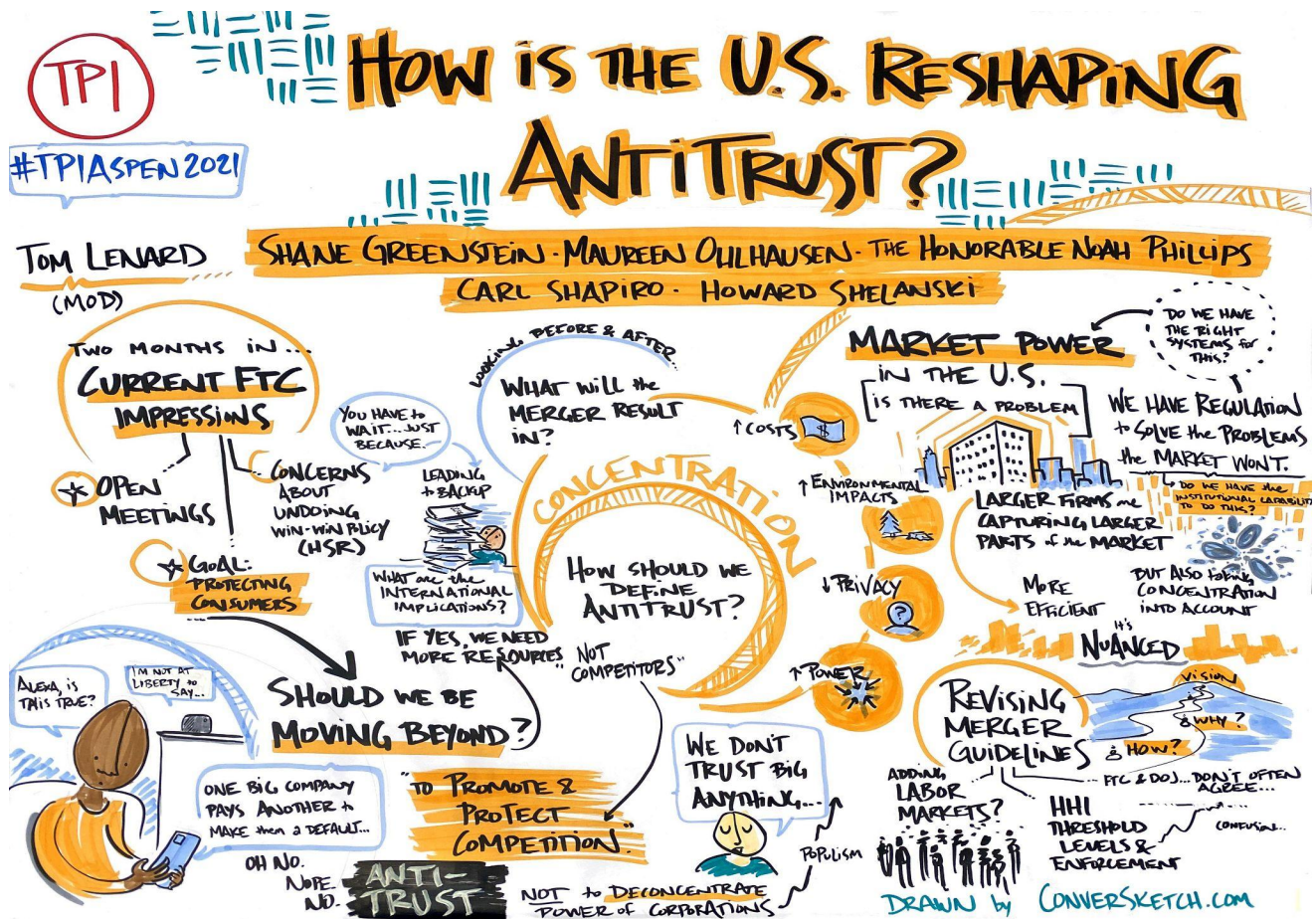
# The Government's Role in Promoting Science and Technology

Panelists: Ashish Arora, Linda Cohen, Kaye Husbands Fealing, Prem Natarajan, Scott Wallsten (moderator)

1. Over the past 50 years, S&T research has moved from being concentrated in individual, large labs to a more decentralized approach with more collaboration. This change appears to have been good for innovation in areas like pharmaceuticals and information technology, but less good for innovation in areas like materials and energy, which have lagged, relatively speaking.
2. Some government agencies have made progress in creating within-agency, cross-area collaborations (ARPA-E is one example), but cross-agency collaboration remains rare. That is, government has successfully worked to break down barriers to within-agency silos, but not cross-agency silos.
3. Energy research has historically suffered, as each administration is reluctant to continue research started by previous administrations.



# How is the US Reshaping Antitrust?



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: How is the U.S. Reshaping Antitrust?



**Shane Greenstein**  
Martin Marshall Professor of Business Administration, Harvard Business School



**Maureen Ohlhausen**  
Partner and Co-chair, Antitrust & Competition Law Practice Group, Baker Botts



**Carl Shapiro**  
Professor, Haas School of Business, University of California at Berkeley



**Noah Phillips**  
Commissioner, Federal Trade Commission



**Howard Shelanski**  
Professor of Law, Georgetown University and Partner, Davis, Polk & Wardwell

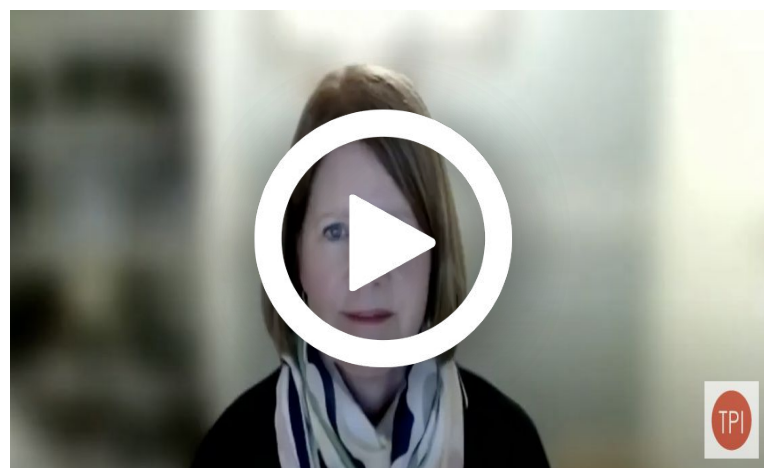


**Thomas Lenard (moderator)**  
Senior Fellow and President Emeritus, Technology Policy Institute

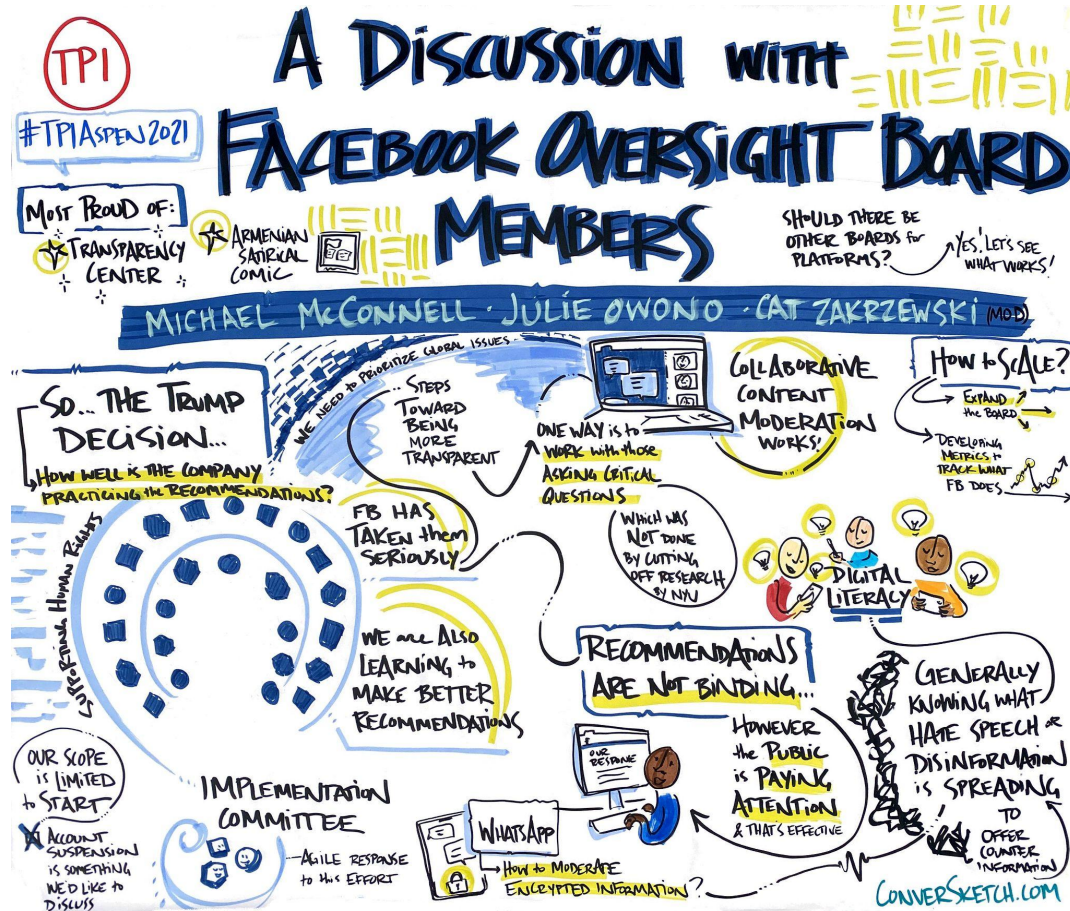
# How is the US Reshaping Antitrust?

Panelists: Shane Greenstein, Maureen Ohlhausen, Noah Philips, Carl Shapiro, Howard Shelanski, Tom Lenard

1. Perception (true or not) that antitrust enforcement has been too permissive and allowed some companies to become too big and industries too concentrated has led to a populist movement that wants to make antitrust more strict.
2. Antitrust analysis could, and some reasonably argue should, explicitly take into account more than price effects of mergers, like effects of labor markets, the environment, and political influence.
3. Antitrust is not the cure for all of society's ills. Antitrust is about promoting and protecting competition. Considering a wider range of potential merger effects might be useful, but it should be done carefully. Such a move risks turning antitrust agencies into general regulators, requiring them to make tradeoffs among objectives for which they are unqualified.



# A Discussion with the Facebook Oversight Board



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### A Discussion with Facebook Oversight Board Members



**Michael McConnell**  
Co-Chair, Facebook Oversight Board



**Julie Owono**  
Member, Facebook Oversight Board, Executive Director, Internet Without Borders and Fellow, Digital Civil Society



**Cat Zakrzewski (moderator)**  
Technology Policy Reporter, The Washington Post



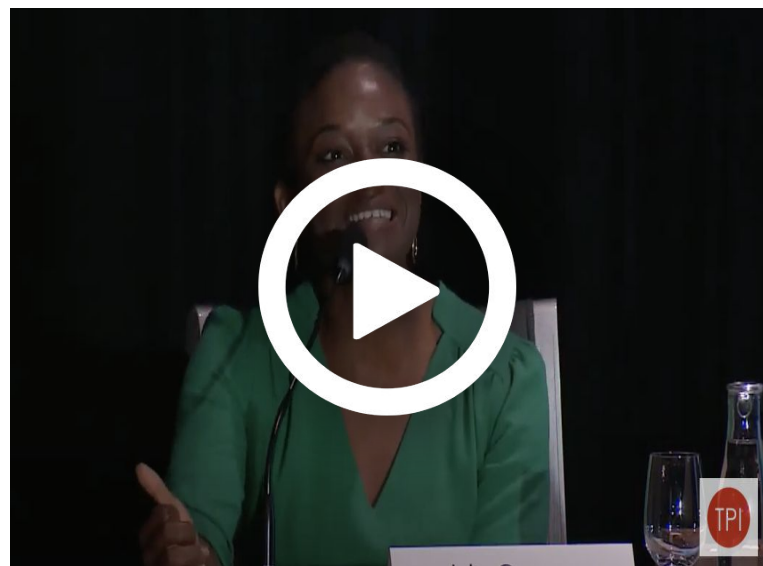
# A Discussion with the Facebook Oversight Board

Participants: Michael McConnell, Julie Owono, Cat Zakrzewski

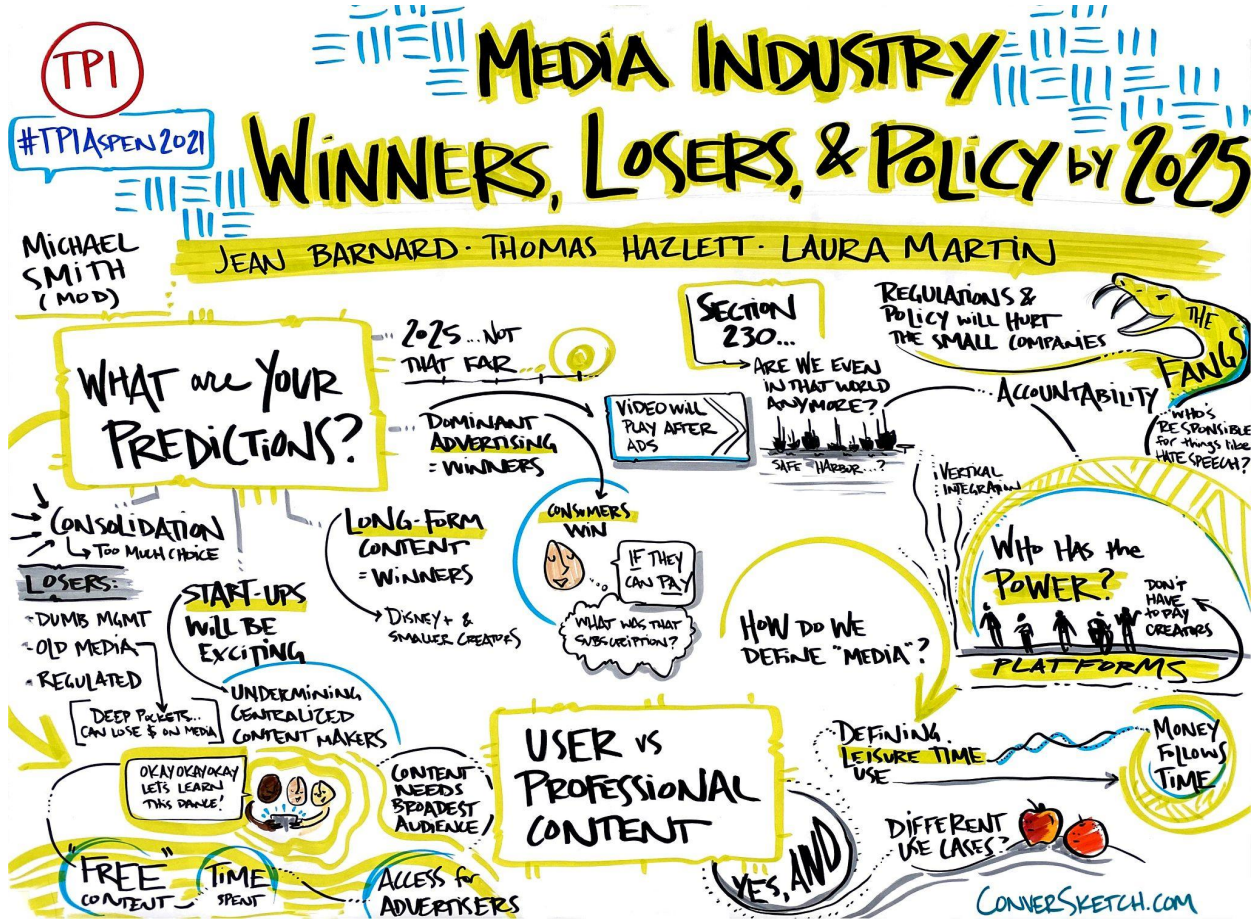
1. Making recommendations is turning out to be the most important contribution of the Board.
2. The Board is helping Facebook figure out how to implement policies and recommendations consistently across services as well as create transparent rules and processes regarding actions like account suspensions..
3. The Board is developing metrics to measure its success and plans to release a year-end report showing the results.



**A DISCUSSION WITH  
FACEBOOK OVERSIGHT  
BOARD MEMBERS**



# Media Industry Winners, Losers, and Policy by 2025



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Media Industry Winners, Losers, and Policy by 2025



**Jean Barnard**  
Portfolio Manager and Director of Research,  
Kennedy Capital Management, Inc.



**Tom Hazlett**  
Hugh H. Macaulay Endowed Professor of  
Economics in the John E. Walker Department of  
Economics, Clemson University

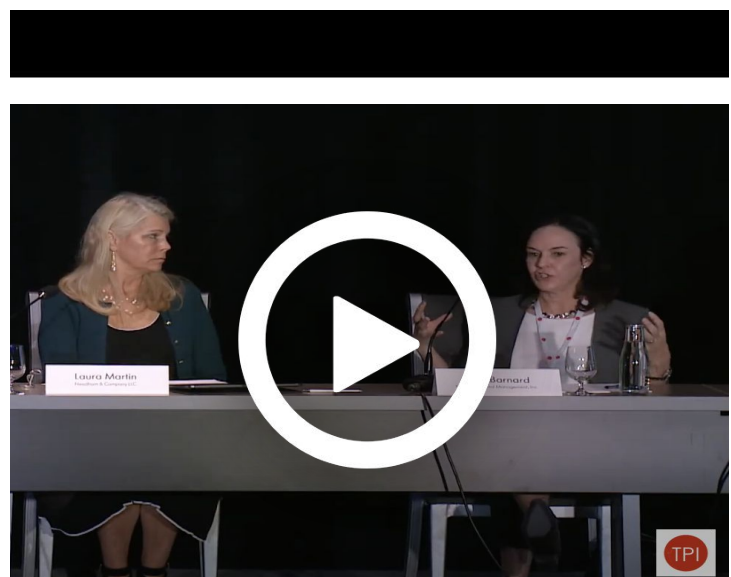
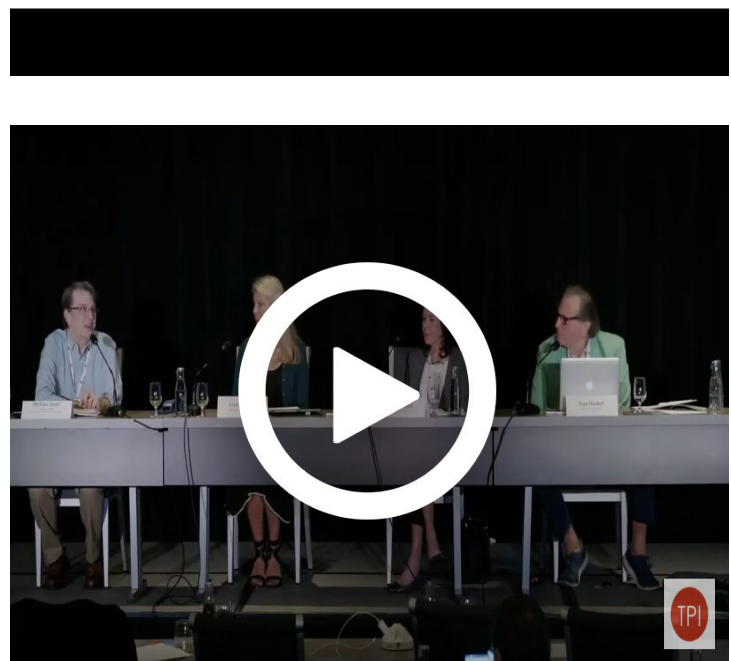


**Laura Martin**  
Managing Director, Entertainment, Cable and  
Media, Needham & Company LLC

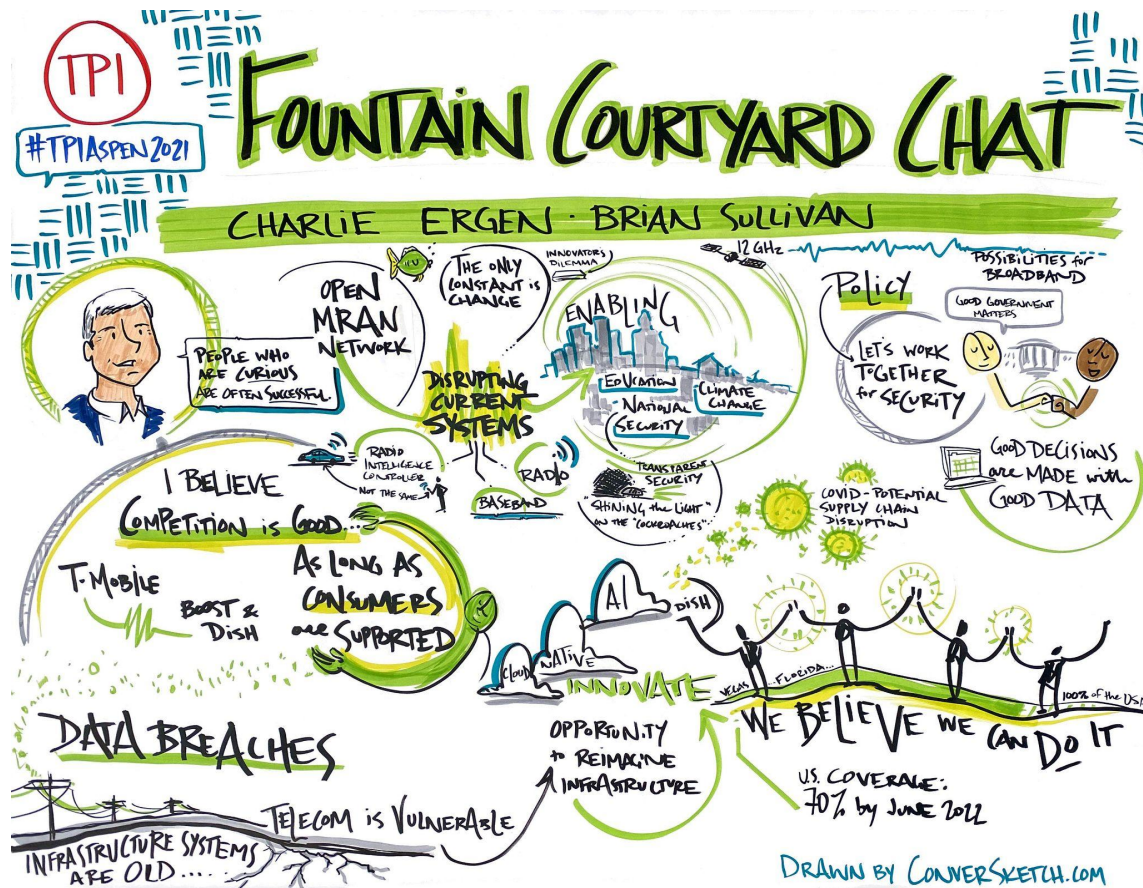
# Media Industry Winners, Losers, and Policy by 2025

Panelists: Jean Barnard, Tom Hazlett, Laura Martin, Michael Smith

1. Legacy media outlets are at a high risk of being permanently left behind by newer entrants due to the shifting viewing patterns of consumers. Apple and Amazon are well positioned to thrive going forward given their distribution capabilities and deep pockets.
2. Content is king, and platforms have a distinct advantage since they don't have to pay their content creators. People are willing to trade intellectual property for likes and comments, which helps the platforms. Network effects act as a moat that can protect platforms from competition. Enticing users to break from network effects requires new and compelling media.
3. New regulatory measures to govern the space are unlikely. Allowing the market to work is the best course of action because the government is typically slow to react and tends to regulate things that happened in the past as opposed to taking a forward looking view. The big companies competing with one another will be able to outsmart the government and impose costs to entry, making the impacts of legislation negligible.



# Fireside Keynote: Charlie Ergen



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### FIRESIDE KEYNOTE



**Charlie Ergen**  
Co-founder and Chairman of the Board,  
DISH Network and EchoStar



**Brian Sullivan (moderator)**  
Host, Worldwide Exchange and  
Senior Correspondent, CNBC

# Fireside Keynote: Charlie Ergen

Participants: Charlie Ergen, Brian Sullivan

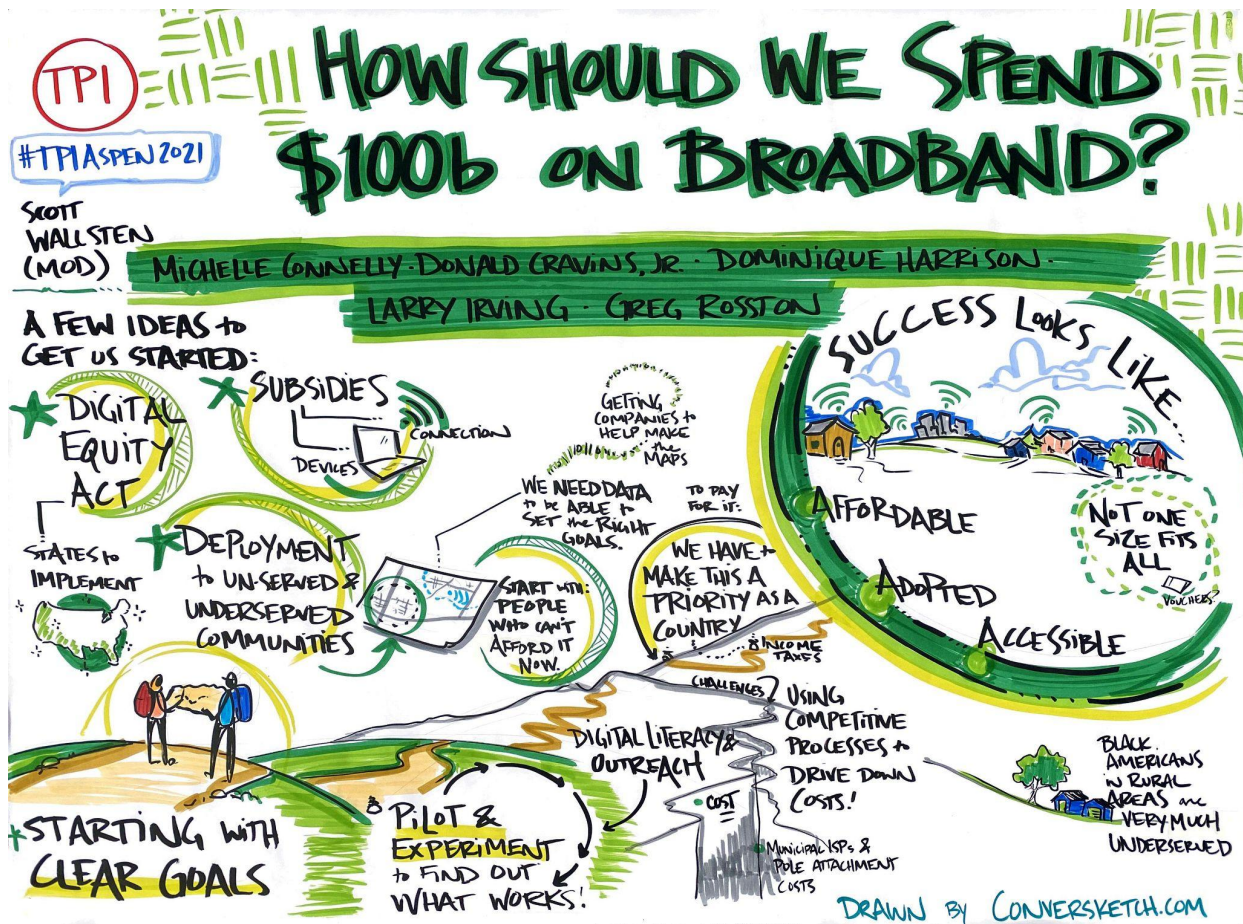
1. Dish is launching the nation's first cloud native, Open RAN-based 5G network. Ergen believes the network will prove revolutionary, allowing consumers to tap into 5G and edge computing solutions unavailable in the past.
2. Dish aims to cover 20% of the market in the first phase. Dish will launch first in cities with friendly regulatory regimes, ample space, and existing infrastructure .
3. The company has already purchased enough equipment to complete the buildout's initial phases, insulating them from the effects of shipping disruptions and chip shortages.



**FIRESIDE KEYNOTE  
WITH CHARLIE ERGEN**



# How Should We Spend \$100 Billion on Broadband?



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: How Should We Spend \$100 Billion on Broadband?



**Michelle Connolly**  
Professor of the Practice of Economics,  
Duke University



**Donald Cravins Jr.**  
Executive Vice President and Chief Operating  
Officer, National Urban League



**Dominique Harrison**  
Director, Technology Policy, Joint Center



**Greg Rosston**  
Director, Public Policy Program, Stanford  
University and Gordon Cain Senior Fellow,  
Stanford Institute for Economic Policy Research

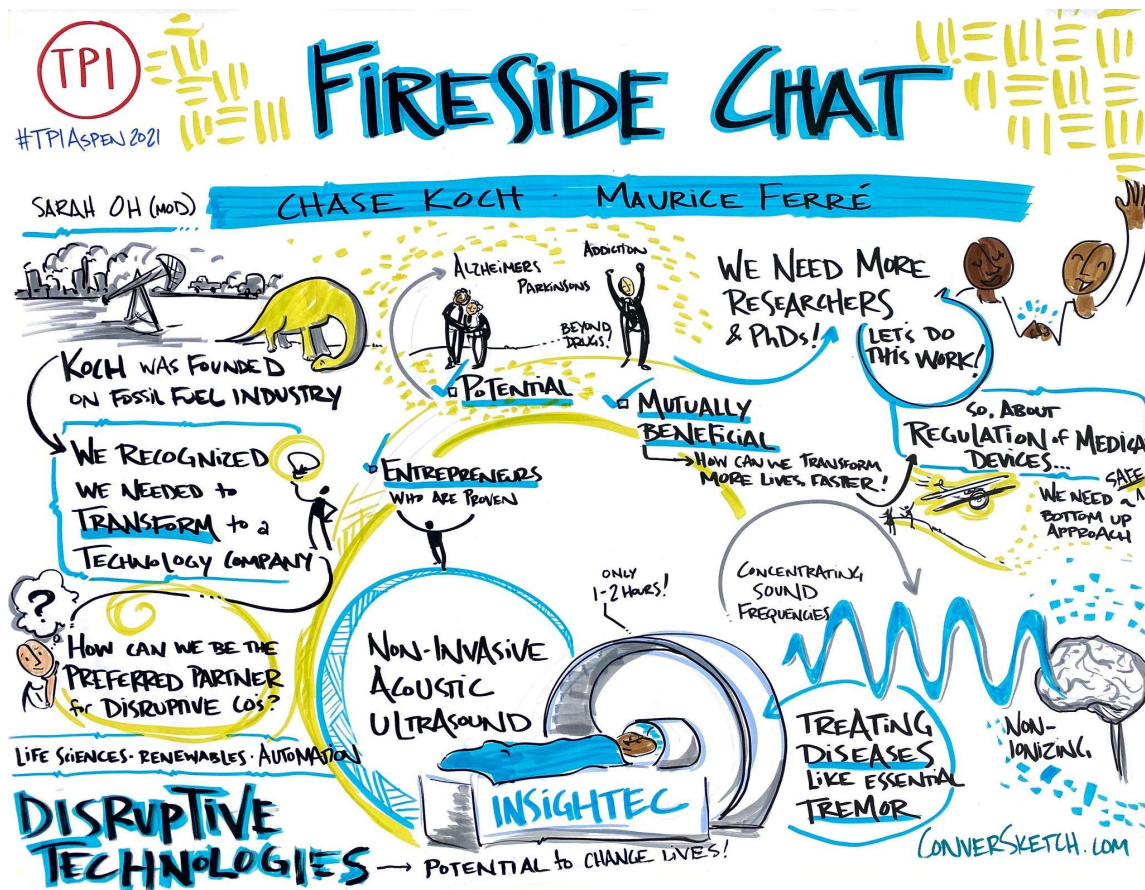
# How Should We Spend \$100 Billion on Broadband?

Panelists: Michelle Connolly, Donald Cravins, Jr., Dominique Harrison, Greg Rosston, Scott Wallsten

1. The pandemic has made connectivity more important than it was previously. Distance learning, telehealth, and working-from-home all became more prominent and are unlikely to revert to pre-pandemic levels.
2. The large amount of money likely to be spent on broadband should make it possible to make real dents in digital divides, but “throwing money at the problem” is not sufficient. We need to do it as cost-effectively as possible.
3. We should flip the script on our historic allocation of universal service funding: put relatively more emphasis on low-income than we have in the past, while still recognizing that access lags in many rural areas and that places with insufficient access and low-income populations may pose specific challenges.



# Fireside Chat: Chase Koch & Dr. Maurice Ferré



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### FIRESIDE KEYNOTE



**Chase Koch**  
*President, Koch Disruptive Technologies*



**Maurice Ferré**  
*Chief Executive Officer, Insightec*



**Sarah Oh (moderator)**  
*Senior Fellow, Technology Policy Institute*



# Fireside Chat: Chase Koch & Dr. Maurice Ferré

Participants: Chase Koch, Dr. Maurice Ferré, Sarah Oh

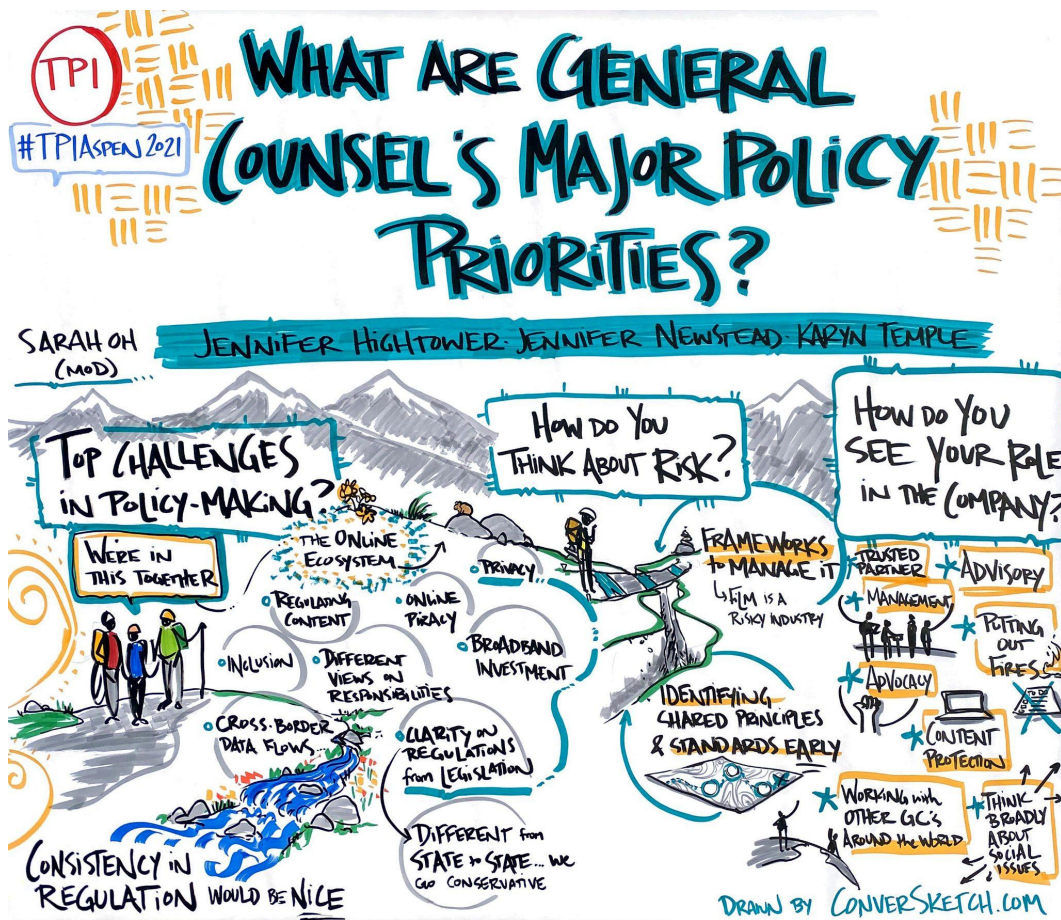
1. New medical technologies like focused ultrasound are the results of decades of innovation related to moving surgery from mechanical to electrical. These non-invasive treatments have the potential to treat a large number of diseases whose treatments otherwise have not improved much over time.
2. The medical devices industry is heavily regulated under a top-down, one-size-fits-all approach that stifles innovation. A better approach would be more flexible and faster to help promote innovation while still protecting patients.
3. Koch industries is transforming itself from an industrial to a technology company and has invested over \$30b so far to do so. KDT is part of that process, and is aimed at “disrupting” Koch’s own businesses as well as others.



FIRESIDE CHAT  
WITH MAURICE FERRÉ &  
CHASE KOCH



# What are General Counsels' Major Policy Priorities?



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: What are General Counsels' Major Policy Priorities?



**Jennifer Hightower**  
Senior Vice President and General Counsel, Law and Policy, Cox Communications, Inc.



**Jennifer Newstead**  
General Counsel, Facebook



**Karyn Temple**  
Senior Executive Vice President and Global General Counsel, Motion Picture Association



**Sarah Oh (moderator)**  
Senior Fellow, Technology Policy Institute

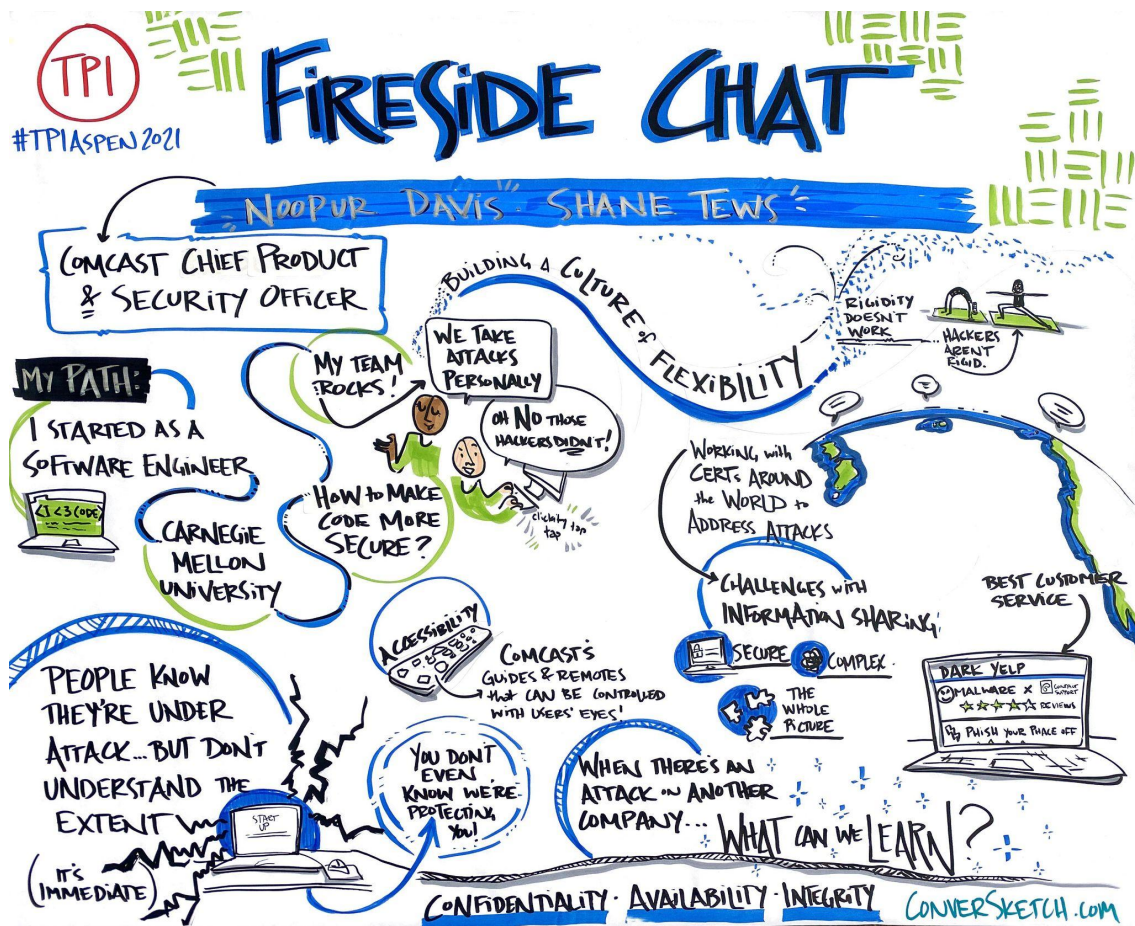
# What are General Counsels' Major Policy Priorities?

Panelists: Jennifer Hightower, Jennifer Newstead, Karyn Temple, Sarah Oh

1. GCs are navigating major changes in internet and tech regulation. Internet and tech regulation are likely at an inflection point, with active debates simultaneously on privacy, content moderation, and even size of businesses.
2. Data localization laws threaten existing business models.
3. Companies face legal challenges of dealing with different laws on privacy, data, and other issues across U.S. states and multiple countries. Uniform standards would be preferable.



# Fireside Chat: Noopur Davis



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### FIRESIDE KEYNOTE



**Noopur Davis**  
*Executive Vice President, Chief Product and Information Security Officer, Comcast*



**Shane Tews (moderator)**  
*President, Logan Circle Strategies, and Visiting Fellow, AEI*

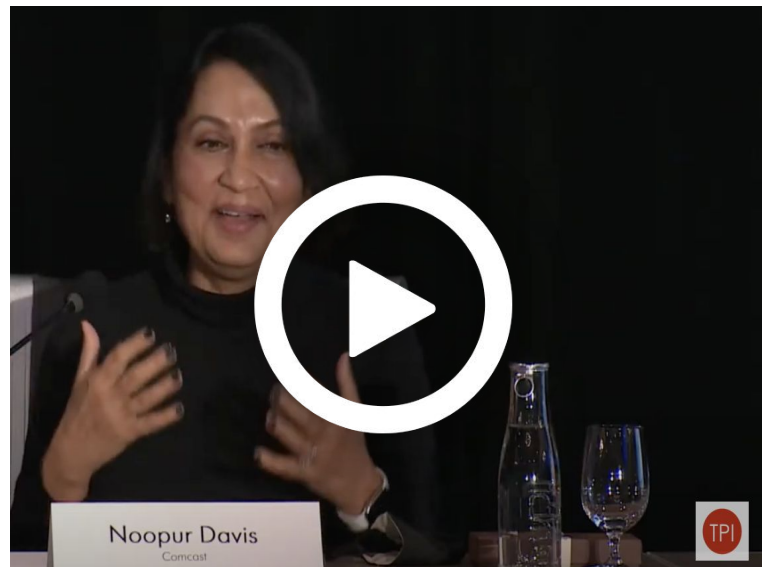
# Fireside Chat: Noopur Davis

Participants: Noopur Davis, Shane Tews

1. The cybersecurity threat landscape changes multiple times per day. Consumers do not realize the extent to which they are under attack. According to a Comcast survey, its customers believe they are subject to 12 attacks per month, when the real number is 104.
2. Cybersecurity has always had three pillars: data confidentiality, data integrity and systems availability. Ransomware is particularly worrisome because it affects all three.
3. Nation-state infiltration into networks is especially difficult to detect because the intruder's goal usually is not to disrupt, but to learn.



FIRESIDE KEYNOTE  
WITH NOOPUR DAVIS



# Does China Need the West?



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: Does China Need the West?



David Gross  
Partner, Wiley Rein LLP



Xiaomeng Lu  
Senior Analyst, Geo-technology Practice,  
Eurasia Group



Samm Sacks  
Cyber Policy Fellow, New America

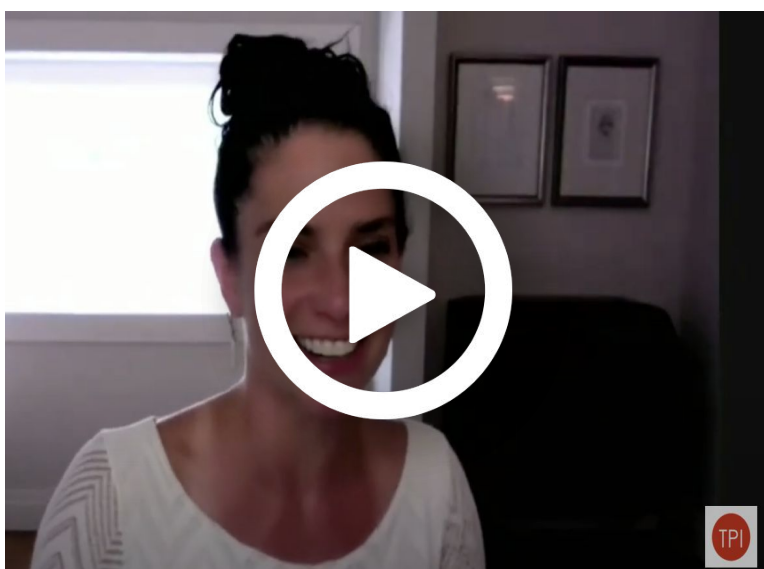
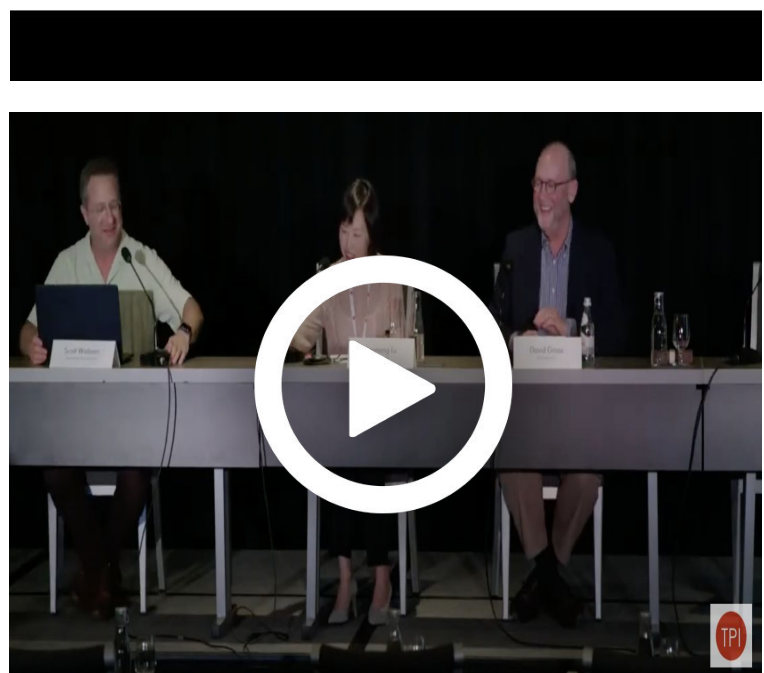


Scott Wallsten (moderator)  
President and Senior Fellow,  
Technology Policy Institute

# Does China Need the West?

Panelists: David Gross, Xiaomeng Lu, Samm Sacks, Scott Wallsten

1. The Chinese Government (Communist Party) is trying to align Chinese tech companies' priorities with its own. It is using three methods to achieve this goal: Transferring resources from the tech sector to the rest of the economy; defining controls over data; and - at least with respect to education companies - trying to keep benefits from being concentrated among the elites.
2. China's actions towards its tech companies are not new. Even in the 1990s, companies could enter the market and act more or less without government interference. But if the company became very successful, the firm would suddenly find itself being regulated in new ways.
3. The Biden Administration's approach to China has been surprising. Rather than lifting tariffs, the Administration is keeping them and even not renewing exemptions that the Trump Administration had granted.
4. Bonus takeaway: Read anything by Peter Hessler to better understand China.



# A Discussion with North American Telecom Regulators



## HOW IS TECH RESHAPING THE POST-COVID WORLD?

### Panel: A Discussion with North American Telecom Regulators



**Brendan Carr**  
Commissioner,  
Federal Communications Commission



**Mignon Clyburn**  
Principal, MLC Strategies LLC



**Bryan Tramont (moderator)**  
Managing Partner, Wilkinson Barker Knauer



# A Discussion with North American Telecom Regulators

Participants: Brendan Carr, Mignon Clyburn, and Bryan Tramont

1. The current structure of two Democrats and two Republicans on the Commission creates an incentive to reach compromises. The FCC has been productive relative to other parts of the government as a result.
2. The \$65 billion the government is currently talking about spending on broadband should be enough to close the digital divide, but we must build accountability into the mechanisms for distributing it.
3. Collaborations between the federal government and states can lead to innovative solutions.



A DISCUSSION WITH NORTH AMERICAN TELECOM REGULATORS



# Media Coverage Roundup

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Here is just a small sample of media coverage.

[The Pros and Cons of State Broadband Grants](#)- Kelcee Griffis, Law360

[Facebook General Counsel Tells TPI Internet Regulation Is Overdue](#)- Karl Herchenroeder, Communications Daily

[TPI President Wallsten Defends Reverse Auction, Points to Mapping Flaws in Light of RDOF Defaults](#)- Ben Kahn, Broadband Breakfast

[Ergen Wants T-Mobile Pact; Notes Smartphone Crunch](#)- Jonathan Make, Communications Daily

[RDOF Scrutinized Amid Hopes for Better Broadband Maps](#)- Jonathan Make, Communications Daily

[D.C. Needs to Look to the States, Colorado AG Says](#)- Leah Nysten, Politico

[Facebook Oversight Board members share disinfo worries](#)- Leah Nysten, Politico

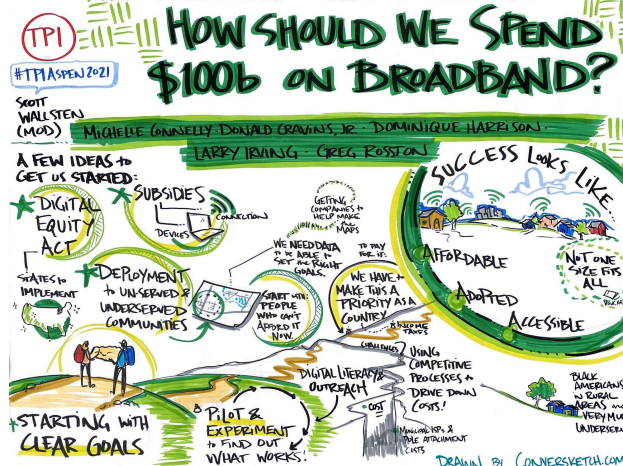
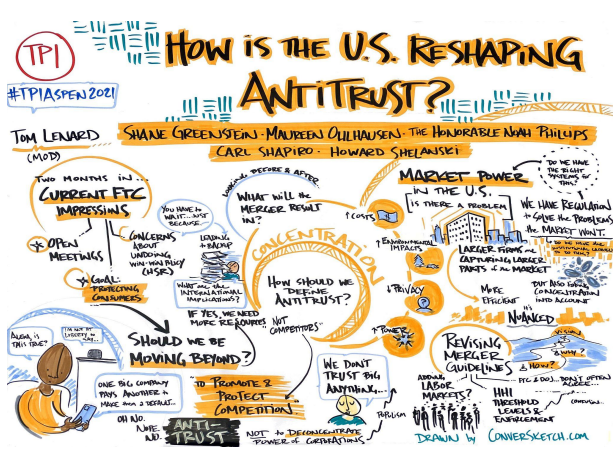
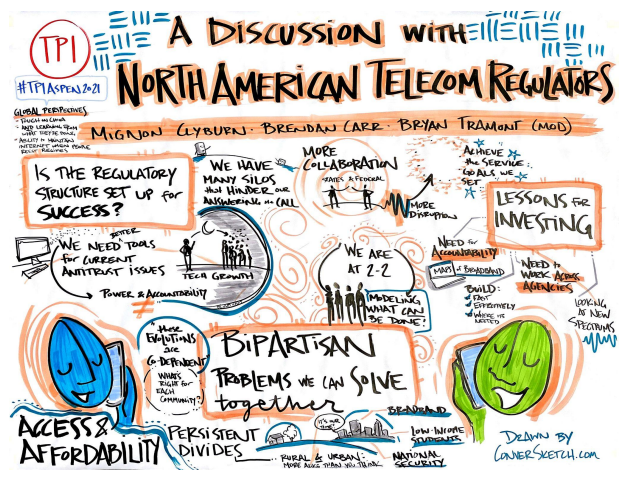
[Carr: FCC Party Split Boosts Bipartisanship](#)- Lynn Stanton, TR Daily

[Phillips airs concerns about US Federal Trade Commission priorities under its new leadership](#)- Mike Swift, MLex

[The Facebook Oversight Board's nonbinding recommendations have become its most important work, members said.](#) -Cat Zakrzewski, The Washington Post

# ConverSketch Graphics

In 2019 and 2021, we worked with Karina Branson at ConverSketch Graphic Recording & Facilitation for graphic sketches of our various sessions. Karina describes her art style as “non-linear” note-taking. The result is an eye-catching summary of each of the panels.



# ConverSketch Graphics

## THE GOVERNMENT'S ROLE IN PROMOTING SCIENCE & TECH

#TPIAspen2021

SCOTT WALLSTEN (MOD) AARON ARORA, LINDA COHEN, KAYE HUSBANDS, FEELING PREM NATHARAJAN

DISCOVERY SCIENCE IN THE WORKPLACE

GOVERNMENT NEED ACCESS TO TALENT (LOCAL, INTERNATIONAL)

R+D POLICY

WHAT WILL CHANGE?

IT DID WORK IN THE 1980S

SCIENCE & RESEARCH ALREADY EXISTED

DEMAND WAS THERE

DECENTRALIZATION

IF WE CAN COLLABORATE THIS CAN WORK!

DARPA

ARPA MODEL NOT PEER REVIEWED

EVERY ECONOMIC POLICY IS AN INNOVATION POLICY

HOW DO YOU EVALUATE?

SCIENCE DOES NOT BRING THE FUTURE BUSINESS

DRAGGING SOLUTIONS & SCALE!

ADJUSTMENT PERIODS

WE NEED TO BRING VALUE TO OUR COLLEAGUES

SHORT TERMISM IN CHANGE OF STATE MEMBERSHIP

DRAWN BY CONVERSKETCH.COM

## A DISCUSSION WITH FACEBOOK OVERSIGHT BOARD MEMBERS

#TPIAspen2021

MICHAEL MCCONNELL, JULIE OWONO, CAT ZAKREWSKI

SO... THE TRUMP DECISION...

FB HAS TAKEN THEM SERIOUSLY

RECOMMENDATIONS ARE NOT BINDING

IMPLEMENTATION COMMITTEE

WE ARE ALSO LEARNING TO MAKE BETTER RECOMMENDATIONS

HOW TO SCALE?

RECOMMENDATIONS ARE NOT BINDING

HOWEVER, THE BOARD IS PAYING ATTENTION TO THIS

GENERALLY KNOWING WHAT TO SPEAK & SPEAKING TO OFFICE

CONVERSKETCH.COM

## FIRESIDE CHAT

#TPIAspen2021

SARAH OH (MOD) CHASE KOCH, MAURICE FERRE

WE NEED MORE RESEARCHERS & PhDs

LET'S DO THIS WORK!

GO ABOUT REGULATION OF MEDICAL DEVICES

WE NEED TO BRING UP REGULATIONS

NON-INVASIVE ACOUSTIC ULTRASOUND

TREATING DISEASES LIKE EPILEPSY, TREMOR

INSIGHTTEC

POTENTIAL TO CHANGE LIVES!

CONVERSKETCH.COM

## FIRESIDE CHAT

#TPIAspen2021

NOOPIE DAVIS, SHANE TEWIS

CONCAST CHIEF PRODUCT & SECURITY OFFICER

MY DREAM BOOKS

WE TAKE ATTITUDE PERSONALLY

HOW TO MAKE CODE MORE SECURE?

CHALLENGES WITH INFORMATION SHARING

CONFIDENTIALITY AVAILABILITY INTEGRITY

CONVERSKETCH.COM

## FOUNTAIN COURTYARD CHAT

#TPIAspen2021

CHARLIE ERGEN, BRIAN SULLIVAN

OPEN MRAN NETWORK

ENABLING

LET'S WORK TOGETHER TO IMPROVE SECURITY

WE BELIEVE WE CAN DO IT

US COVERAGE: 40% BY JUNE 2022

CONVERSKETCH.COM

## MEDIA INDUSTRY WINNERS, LOSERS, & POLICY BY 2025

#TPIAspen2021

MICHAEL SMITH (MOD) JEAN BARNARD, THOMAS HAZLETT, LAURA MARTIN

WHAT are YOUR PREDICTIONS?

LONG TERM CONTENT WINNERS

STARTUPS WILL BE EXCITING

USER VS PROFESSIONAL CONTENT

FREE TIME

CONVERSKETCH.COM

## WHAT ARE GENERAL COUNSEL'S MAJOR POLICY PRIORITIES?

#TPIAspen2021

SARAH OH (MOD) JENNIFER HIGHTOWER, JENNIFER NEWHEAD, KAREN TEMPLE

TOP CHALLENGES IN POLICY-MAKING?

WE'RE IN THIS TOGETHER

THE ONLINE ECONOMY

HOW DO YOU THINK ABOUT RISK?

FRAMEWORKS TO MANAGE IT

HOW DO YOU SEE YOUR ROLE IN THE COMPANY?

CONVERSKETCH.COM

**SAVE THE DATE**

**TPI ASPEN FORUM 2022**

AUGUST 14-16

[www.tpiaspenforum.tech/register](http://www.tpiaspenforum.tech/register)

# Our Supporters



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## 2021 ASPEN FORUM HOW IS TECH RESHAPING THE POST-COVID WORLD?

We thank the following organizations for their support of the Technology Policy Institute.

