

GOVERNMENT SERVICES ADMINISTRATION

+ + + + +

MASS & FAKE COMMENTS

+ + + + +

PUBLIC MEETING

+ + + + +

THURSDAY
JANUARY 30, 2020

+ + + + +

The Public Meeting met in the General
Services Administration Auditorium, 1800 F
Street, NW, Washington, D.C., at 2:00 p.m.,
Tobias Schroeder, Director, presiding.

PRESENT

TOBIAS SCHROEDER, Director, eRulemaking Program,
Office of Regulation Management, General
Services Administration

VIRGINIA HUTH, Deputy Associate Administrator,
Office of Regulation Management, General
Services Administration

DOMINIC MANCINI, Deputy Administrator, Office of
Information and Regulatory Affairs, Office
of Management and Budget

JESSICA SALMOIRAGHI, Associate Administrator,
Office of Government-wide Policy, General

Services Administration

PANEL 1: THE IMPACT OF MASS AND FAKE COMMENTS
IN RULEMAKING

OLIVER SHEROUSE, Small Business Administration

SANITH WIJESINGHE, MITRE

PATRICK HEDREN, National Association of
Manufacturers

PANEL 2: PUBLIC POLICY PERSPECTIVES ON MASS &
FAKE COMMENTS

STEVEN BALLA, George Washington Regulatory
Studies Center

REEVE T. BULL, Administrative Conference of the
United States

MICHAEL FITZPATRICK, Google

C-O-N-T-E-N-T-S

Welcome and Introduction	4
Virginia Huth	
Opening Remarks	
Dominic Mancini.	6
Jessica Salmoiraghi.	8
Introduction of Panel 1 Speakers . . . . .	.10
Tobias Schroeder	
Manufacturing Sectors thoughts on Mass Comments	
Campaign and Impacts of Rulemaking . . . . .	.14
Patrick Hedren	
Answers the Question of What's the Big Deal About	
Fraudulent Comments . . . . .	.23
Sanith Wijesinghe, MITRE	
Explanation of Public Comments, Poor Quality/High	
Quality Mass Comments. . . . .	.29
Oliver Sherouse	
Q&A. . . . .	.41
Introduction of Panel 2 speakers . . . . .	.58
Tobias Schroeder	
Explanation of Mass Comment Campaigns and Agency	
Rulemaking Project . . . . .	.65
Steven Balla	
Purpose of Notice and Comment and Discussion of	
Mass and Fraudulent Comments . . . . .	.75
Reeve Bull	
Discussion on Increase of Fake	
Comments/Technology Solutions. . . . .	.85
Michael Fitzpatrick, Google	
Q&A. . . . .	.95
Closing Remarks.	113

1 P-R-O-C-E-E-D-I-N-G-S

2 (2:01 p.m.)

3 MS. HUTH: Good afternoon. Thank you
4 for coming to GSA today. And thank you also to
5 our virtual audience. We have several hundred
6 participating through virtual channels.

7 My name is Virginia Huth and I am the
8 Deputy Associate Administrator of the Office of
9 Regulation Management at the General Services
10 Administration, which houses the eRulemaking
11 Program Management Office, as well as the
12 Regulatory Information Service Center. The
13 important role of the Administrative Procedure
14 Act and specifically the notice and comment
15 requirements of the rulemaking process are
16 pillars of the democratic tradition of ensuring
17 that the workings of government are open to the
18 American people. And that the federal government
19 is held accountable for its decisions.

20 I'm excited today to bring to you a
21 stellar panel to discuss the technical, legal and
22 policy challenges that relate to mass and fake

1 comments, a key part of our process. I am
2 excited to bring to you today the eRulemaking
3 Program and it's governed by 221 participating
4 agencies and sub-agencies who are members of the
5 process. The organization is co-chaired by the
6 Office of Information and Regulatory Affairs at
7 OMB and the Office of Government Wide Policy at
8 GSA.

9 I'm delighted to introduce our Co-
10 Chairs, Dominic Mancini and Jessica Salmoiraghi.
11 First, Mr. Mancini, he is the Deputy
12 Administrator -- They're in the wrong order here
13 -- Deputy Administrator of the Office of
14 Information and Regulatory Affairs. He's an
15 economist by training with a PhD from the
16 University of North Carolina at Chapel Hill. And
17 he began his federal career at the Food and Drug
18 Administration.

19 He has spent the majority of his 20
20 year career in public service at the Office of
21 Information and Regulatory, working his way up
22 the ranks with the latest seven years serving as

1 Deputy Administrator with frequent acting
2 positions as the Acting Administrator. With
3 that, I present to you the honorable Dominic
4 Mancini for opening remarks.

5 MR. MANCINI: Thank you very much,
6 Virginia. I'd first like to thank Virginia and
7 her colleagues for actually being the force
8 behind organizing this. This is an opportune
9 moment to talk about these issues. I'd also like
10 to thank her because one of her many innovations
11 here is she gave Jessica and I a total of six
12 minutes to talk. So you should thank her for the
13 short remarks I'll have today.

14 Really I have the opportunity, I'm
15 going to step back a little bit, of really -- I'm
16 not going to say much of anything today because
17 this is your opportunity; the public and the
18 agencies and the stakeholders to tell us about
19 what you think about these issues. This is not -
20 - if you know OIRA, you know that we probably
21 have strong opinions about many things, but this
22 is not the opportunity for us to express them.

1 So I'm going to stay for as long as
2 possible. My colleagues are here and also our
3 colleagues with GSA and that's really it. We're
4 looking forward to hearing all the different
5 legal technology and policy and the unique
6 combination of perspectives that when you're
7 considering this issue and its interaction with
8 the regulatory process.

9 So with that, I'll invite Jessica to
10 also come up and say a couple of things.

11 MS. HUTH: Yes. Ms. Salmoiraghi is
12 the Associate Administrator for the Office of
13 Government-Wide Policy at GSA. In addition to
14 the oversight for the Office of Regulation
15 Management, she oversees seven other offices that
16 provide government-wide policy and guidance for
17 programs such as Real and Personal Property,
18 Travel, Regulatory Policy Development,
19 Government-wide Programmatic Support, and
20 Information Technology.

21 Ms. Salmoiraghi also serves as the
22 Agency's Chief Acquisition Officer. Prior to her

1 public service at GSA, she served in various
2 leadership positions in architecture,
3 engineering, and construction organizations
4 focused on national and international
5 procurement.

6 MS. SALMOIRAGHI: Good afternoon and
7 thank you all so much for that warm welcome. And
8 thank you, Virginia. I appreciate it. As the
9 new Co-Chair for the eRulemaking Executive
10 Steering Committee, I'm excited about the
11 opportunities for transformation that lie ahead.
12 And that you are here to help shape that future.

13 This program is the start -- I mean
14 today's program is the start of a robust
15 discussion to better understand the challenges
16 and potential solutions to improve the state of
17 electronic rulemaking. This will occur in three
18 areas. First, modernizing the service with
19 secure and innovative technical solutions that
20 are responsive to the needs of the community.
21 Second, responding to the challenges of mass and
22 fake comments in the regulatory process. And

1 third, further integration of the larger
2 regulatory system.

3 I serve, as you've heard as the
4 Associate Administrator of the Office of
5 Government-Wide Policy at GSA. GSA, OGP's goal
6 here is to provide innovative solutions for the
7 future of government. I oversee eight offices
8 that helped to developed government-wide
9 regulations, support government-wide initiatives,
10 and collective promulgate best practices.

11 When the opportunity emerged to take
12 on the eRulemaking PMO, I saw it as a natural fit
13 to our existing work because OGP also oversees
14 the Regulatory Information Service Center on
15 behalf of OIRA. Bringing these related
16 organizations together, we created the Office of
17 Regulation Management.

18 I want to thank my Co-Chair, Dominic
19 and his team for their help and support as we
20 stood up this program at GSA. And also EPA for
21 their partnership in completing a successful
22 transition of the PMO.

1 Moving ahead, I am committed to
2 improving the quality of services received by our
3 partner agencies while addressing these critical
4 challenges. These include the role of fake
5 comments in the regulatory process and
6 transforming the system that both the public and
7 our agency partners use.

8 I am excited about the new
9 capabilities that modernization will bring. We
10 envision better integration of data and IT across
11 systems to improve analytics in using innovative
12 approaches to promote public access,
13 accountability, transparency, and efficiency
14 across the system.

15 We have a very full agenda today. And
16 as Dominic set a very short stage, I will too.
17 Thank you again for participating. And I now
18 turn it over to Tobias Schroeder, Director of the
19 eRulemaking PMO. Thank you again.

20 MR. SCHROEDER: Thank you. And I'm
21 trying to avoid the feedback here. Thank you to
22 all in attendance, both in-person and virtually.

1 We'll be using notecards to ask questions. At
2 any time during the panel, if you need a
3 notecard, raise your hand and one of our runners
4 will give you one. The two runners, if you don't
5 mind standing up and raising your hand. Okay.

6 If you've completed your question, just simply
7 raise your hand that's holding the notecard and
8 we'll come by and collect them.

9 We're taking questions through our virtual
10 connections. Just type in your question to the
11 chat window and we'll queue them up, along with
12 the other questions for the people in the room.

13 Today's meeting is being recorded.

14 And the transcript will be available to all those
15 who are unable to attend today. If you want your
16 comment on any aspect of the rulemaking
17 modernization to be a part of our official
18 docket, you must go to Regulations.gov and submit
19 it to us by April 30th.

20 Today is an opportunity to elicit
21 question and answer and expose you to some of the
22 issues related to fake comments. We're accepting

1 comments on all aspects of modernization of
2 rulemaking through electronic services.

3 For both comments submitted through
4 Regulations.gov and the questions submitted to
5 today's panelists, please keep in mind that our
6 focus is on overall regulatory process and
7 policy, services, and information technology that
8 can support the integrity, security efficiency,
9 and effectiveness of the process.

10 Any questions or concerns that you have on
11 individual rulemakings should be directed to the
12 agency who is developing or amending the rule.

13 With that said, I'd like to turn it
14 over to our esteemed speakers. We're going to
15 engage in 15 minutes of audience Q&A following
16 the completion of the prepared remarks.

17 So I'd like to introduce Patrick
18 Hedren. He's the Vice President of Labor, Legal,
19 and Regulatory Policy at the National Association
20 of Manufacturers. You can go ahead and come up
21 on the stage as I announce your name. Dr. Sanith
22 Wijesinghe, he's the Innovation Area Lead with

1 MITRE. And Oliver Sherouse, Regulatory Economist
2 with the Office of Advocacy at the Small Business
3 Administration.

4 Patrick's the Vice-President of Labor,
5 Legal, and Regulatory Policy at the National
6 Association of Manufacturers, which advocates for
7 14,000 member companies. He leads NAMs advocacy
8 before Congress and the Executive Branch on
9 smarter regulations, commonsense legal reform,
10 and labor and employment policies that fit modern
11 manufacturing workforce. Prior to his work at
12 NAM, he served as the senior counsel for a
13 Fortune 15 manufacturing company where he helped
14 to grow and manage the company's regulatory
15 advocacy practice.

16 Dr. Sanith Wijesinghe is the
17 Innovation Area Lead at MITRE. MITRE is a
18 federally-funded research and development center
19 that assists the U.S. federal government with
20 scientific research, analysis, and explores new
21 and expanded uses of technologies to solve
22 problems.

1 And finally we have Oliver Sherouse.
2 He's a Regulatory Economist with the Small
3 Business Administration, Office of Advocacy, the
4 independent voice for small business within the
5 federal government. Since the enactment to the
6 Regulatory Flexibility Act in 1980, the office
7 has worked with federal agencies to avoid
8 excessive regulatory burdens on small businesses.
9 Prior to SBA, Oliver was the Research Analytics
10 Lead for a program of economic research on
11 regulation at the **Mercatus Center** at George Mason
12 University.

13 Okay, so I'll hand it off to the
14 panelists, starting with Patrick.

15 MR. HEDREN: There we go. And it's
16 loud. So first up, let me just say thank you for
17 inviting me to be here and for hearing the
18 manufacturing voice on issue today. And then
19 second, let me say, it's a little alarming to me
20 in some respects to see that, looking out into
21 the crowd, I think **I know about half of you on a**
22 **first name basis.** So we probably need a little

1 bit more fresh blood in this regulatory nerd
2 community that we live in. Third, I was kind of
3 giggling in the introduction, because I see my
4 former boss sitting directly in front of me who's
5 on a different panel as well. And I'm sure we'll
6 probably say some similar things.

7 So let me just kind of keeping it
8 informal. I think that this subject is an
9 interesting one. The context and the politics
10 around the mass comment campaigns are very, very
11 interesting. But I think, you know, a few things
12 jumped out at me as we're going through this.

13 And we've very much kind of what, I would
14 consider power users of the regulatory process.
15 We have a clear point of view for the
16 manufacturing sector. We weigh in frequently in
17 agency actions across the entire federal family,
18 whether they're independent agencies or executive
19 agencies and departments. So we have quite a lot
20 of experience and exposure to the tools that
21 really underpin the system. And there's a lot of
22 value in those tools.

1 So start there. The federal tools are
2 tremendous. We're talking about what we can do,
3 I think, today to evolve those tools and where
4 possibly we need to be rethinking the way that
5 the regulated community and the public have
6 responded and created new types of campaigns in
7 these tools. But fundamentally what we're
8 dealing with is very much best in class. And as
9 you go around the rest of the world, you can see
10 that clearly. We are a model for other countries
11 around the world and what they do for the
12 regulatory process. And when they look to
13 improve, they look to us. And they work with Dom
14 and team more often than not to do that. So
15 we're in a very privileged place there.

16 So from mass comment campaigns -- and
17 maybe I'll start here and the make a couple
18 unrelated, but I think, kind of more fun points
19 after on maybe where the tool could go. And how
20 we evolve into kind of the next phase of our
21 engagement with our government.

22 But on mass comment campaigns, it

1 occurs to me that one of the principle things
2 that we're dealing with is identifying what
3 exactly is the problem that we are trying to
4 address? And on that front, I think it's a
5 little bit unclear. And I think everybody is
6 familiar with some of the tensions in this space.
7 I mean commenting on a regulation is one of the
8 ways in which we petition our government for a
9 redress of grievances. It's one of the ways we
10 exercise our First Amendment rights. And it's
11 one of the ways that we can weigh in
12 substantively on a rule.

13 We can talk about legal issues. We
14 can talk about economic issues. We can try and
15 guide an agency's preference in the way that they
16 select a regulatory alternative. But we can also
17 just be heard. And we are probably as guilty of
18 this as anybody else. We encourage our members
19 to reach out and be heard when they care about
20 something. Is that legally relevant in
21 rulemaking? Not really unless there are kind of
22 more advanced arguments as to why an agency must

1 or should listen to what people are saying in
2 that forum. But I think it's a real way that you
3 can be heard.

4 So that leads me to my kind of second
5 point. As we're trying to figure out what the
6 problem is, I need help trying to figure out what
7 the audience is. And I think there's multiple
8 audiences for rulemaking. And I have a feeling
9 that folks in the room are kind of in one place
10 or another and are come with an institutional
11 perspective like that. But I think at the very
12 least, you can divide up three core audiences
13 that matter for a tool like Regulations.gov for
14 the commenting process at large.

15 One is obviously the agency. If
16 you're the agency, you have to have some tool
17 where you can aggregate in one place what you
18 receive. And simplify so that you're not missing
19 something. So that there's an ability to point
20 to a comment and say that anybody can see that,
21 that comment is in there and what it says. And
22 here's how we respond to it.

1 Another audience is just the public.
2 And this goes for the regulated public, but I
3 think it's the public at large as well. For the
4 regulated public, there's a lot of value going
5 into a docket and figuring out where everybody
6 else might be. That can be a little tough to do
7 sometimes. And I think as many of us know, you
8 know, you do an 1159 filing as done everybody and
9 you think, I wonder what the other people are
10 saying. And then about a week later as all the
11 comments post, you find out oh, I wish I had
12 known they were going to say something like that.
13 I have rebuttal. I have something that I could
14 say to add to that debate. So that's another
15 dimension.

16 The third that I'd point out, and I'm
17 sure there are many more that we could kind of
18 think of is Congress -- is policy makers. This
19 is not just a tool for the agency to develop the
20 rule. It's not just a tool for us to see what
21 people are saying about it. It's a tool to
22 figure out where are people? How are we feeling

1 about this regulatory program? And what are we
2 trying to achieve with it? And I think it's
3 tremendously valuable as somebody who frequently
4 trucks up to Congress with a comment letter in
5 tow, which by the way, no one will ever read
6 because it will be 30 pages, so it will be on a
7 shelf.

8 But there's value in knowing that
9 here's where your constituents are. Here's where
10 you industries are. Here's where your consumer
11 groups and your public welfare groups are going
12 to come out on this rule. And I think there's
13 kind of transparency value to that. So it
14 informs the future policy making and response.

15 And I think as we're dealing with things like
16 regulatory reform and other ways that we try to
17 involve the regulatory conversation from own
18 perspective, there's a lot of value in showing
19 where there might be shortcomings in a statute
20 and the choices that an agency is empowered to
21 make. And it will come out in the process.

22 So now's the moment that I should say,

1 we are absolutely a participant in encouraging
2 people to file comments that are similar to one
3 another. I think that's a common way that people
4 find engagement with their membership, with their
5 constituency, with other groups that support who
6 they are. And we're no different in that
7 respect. So we want to be very careful to not
8 amend the tool in a way that this cracks down on
9 something that's completely normal, permissible,
10 constitutionally valid, and a sort of positive
11 way to engage the government.

12 There are some problems in there.
13 There are abusive comments. There are, you know,
14 certainly questions about what agency should be
15 forced to respond to. But I think, to me those
16 seem to be surmountable. And then maybe I'll
17 kind of end here. I guess I've probably got a
18 little more time. But I think what we need to
19 consider when you zoom out to the 30,000 foot
20 view and you take for example, FCC rulemaking, I
21 think we're all familiar with, there's a big to-
22 do. There is a lot of public pressure around

1 other rulemakings. I think it popped it into the
2 public psyche in a very real way. And we saw
3 that people were getting engaged in this process
4 that never would have before.

5 Are we sure that we've communicated
6 with the public on what this is that we're doing?
7 Does the public understand what a comment is?

8 It's not a vote. It's a way of engaging with an
9 agency. But I think the way that it is described
10 for better or for worse, can be a little bit
11 troubling. And I wonder if some of that is
12 generating the angst. If that's sort of
13 providing some of the impetus to have a forum
14 like this and to talk about evolving the tool and
15 there's a fundamental misunderstanding of what it
16 means to engage in the process to change a
17 rulemaking. And on that front, I'm not sure if
18 there's a solution in the tool to do that. But I
19 do think that it's an important issue for us to
20 address.

21 But with that, let me kind of stop and
22 pass it on to the next co-panelist.

1 MR. WIJESINGHE: Thank you. So my
2 name is Sanith Wijesinghe. I lead one of MITRE's
3 research programs dedicated to looking at policy
4 issues. So I wanted to thank Tobias and Virginia
5 for inviting MITRE to be on this panel today. So
6 I want to kick it off with answering a question
7 that has been on the table leading up to the
8 event, which is what's the big deal about
9 fraudulent comments? You know, why should anyone
10 care about these to begin with, given that we
11 have kind of a gating mechanism downstream from
12 our agencies, they can resolve it. And so what's
13 the big deal?

14 So I think it's worth making explicit
15 some of the real social and economic costs that
16 arise with these fraudulent comments. I think
17 the first one to address is with respect to
18 identify theft. Since you're all very familiar
19 with the FCC Net Neutrality 22 million comments.
20 And just over half of them were identified as
21 being from stolen identities.

22 So you know, these are identities

1 stolen from citizens at large, you know, high
2 profile senators, celebrities, Elvis was supposed
3 to be commenting on a couple of those. You know,
4 and speaking of, you know, the cost involved
5 there, you now have on the public record, a
6 statement attributed to someone without their
7 consent. And it takes quite a lot of effort to
8 correct that. And not everyone has the resources
9 to do it. And this follows a similar pattern for
10 identify theft that we see elsewhere with it
11 that's identity theft fraud for insurance or
12 benefits or taxes where in this case, there's
13 also deceased individuals whose identities are
14 stolen and their next of kin on the hook to try
15 to resolve the issues. So that's a very clear
16 cost to society.

17 There is also the association of cost
18 for our agencies. You know, is it a real good
19 use of tax payer money to process comments that
20 probably originate in foreign countries? Why are
21 we spending this time, you know, accommodating
22 that? Given that we now have Evidence Based

1 Policy Act, the overhead associated with tracking
2 down all of the assertions made in these
3 comments, you know, is a non-trivial effort. And
4 we really need to make sure we -- our policies
5 are truly evidence-based and not fake evidence-
6 based. So there's really an efficiency function
7 there as well to consider.

8 I think, you know, these economic
9 arguments I guess there's some way to perhaps
10 quantify. But there's the larger kind of impact
11 to our democracy at large in terms of how it
12 skews to the discourse. And you know, the cost
13 there, you know, potentially unimaginable of all
14 the different ripple effects that has. So it is
15 really important to detect these. And some of
16 the work we started in this area started off with
17 a hypothesis that a lot of these fraudulent
18 comments aren't isolated events by themselves.
19 They're part of a larger social media campaign
20 where, you know, it's part of a bigger effort to
21 influence a certain perspective.

22 So we tested that hypothesis against

1 some of the kind of high profile rules. It turns
2 out to be true that there is fairly good tech
3 similarity between those comments in the public
4 rule, as well as comments or postings on Facebook
5 and Twitter, and YouTube where you can see pretty
6 close, you know, one to one matches.

7 Now using that approach, you can kind of catch
8 some of the obvious folks who, you know, their
9 basic strategy is you know, proof through
10 repeated assertion, which is in this case, you
11 know, just key words, changes here and there.
12 You know, slight modifications.

13 But if you're aware, there's a paper
14 that came out recently from a Senior at Harvard
15 called Max Weiss who created bots that generate
16 deep fake comments. And he submitted a thousand
17 of those to Idaho Medicaid ruling. And basically
18 they were indistinguishable from human comments.
19 So there's kind of an arms race that results as
20 these technologies mature. Interestingly, Max
21 Weiss laid out the entire methodology in his
22 paper. And at the end he says, this is just for

1 experimental use. Do not try this at home. But
2 you know, the genie's out of the bottle. And if
3 you have someone who's just a Senior in college
4 who is able to do this, imaging what someone
5 with, you know, a lot more resources can do.

6 So there's an important question
7 because there's going to be lots of analytics
8 that gets, you know, thrown at this problem.
9 And you're going to start to figure out what are
10 some of the legal guardrails, especially as it
11 pertains to the Administrative Procedures Act
12 that we need to be kind of mindful of to make
13 sure that we don't overstep any kind of, you
14 know, charging activity or decision making that
15 really should be human driven and not driven by
16 some kind of automated machines. So that's a key
17 area of our research. We're trying to figure
18 out, you know, how far can we push these
19 analytics?

20 So that leads into a question of, you
21 know, what are some of the opportunities to
22 mitigate these comments -- fraudulent comments?

1 And can we do it without creating this arms race?

2 And some of the ideas that are out there right
3 now including things like CAPTCHA, I think raise
4 the bar in terms of helping us, you know, take
5 out some of those early kind of, really not so
6 smart bots. But it's just only going to get
7 worse.

8 And I think there's a need to try to
9 think outside of the box, beyond just the system
10 immediately. Is there alternative ways that we
11 can structure perhaps rules so that it's not a
12 free for all comment, but rather potentially a
13 more directed rule comment process where you can
14 actually map those comments to particular
15 provisions? It's possible that bots could still
16 kind of attack those as well. So it's not kind
17 of be all, end all potential solution. But it
18 does increase the cost and potentially streamline
19 the process downstream for our agencies who have
20 to make sense of these rules. And if it's in
21 completely unstructured format, you're trying to
22 guess what exactly they might be saying. With

1 this kind of self-referencing input, there may be
2 an opportunity to help there as well.

3 So with that, I will pause and hand it
4 over to my colleague.

5 MR. SHEROUSE: Thank you. And thank
6 for already turning on the mic so I don't have to
7 figure out how to do it.

8 So my name is Oliver Sherouse. I'm a
9 regulatory economist with the Office of Advocacy
10 at the Small Business Administration. And I also
11 want to join my panelists in thanking GSA for
12 putting on this panel. I should start off by
13 clarifying that my remarks today represent solely
14 my own views. And should not be taken as the
15 views of the Office of Advocacy or Chief Counsel
16 of the Small Business Administration or of the
17 U.S. government.

18 And furthermore, I should point out
19 that while the Office of Advocacy is housed
20 within SBA, it's actually an independent office.
21 It doesn't speak for SBA. And it has a distinct
22 role of representing the views of small

1 businesses to the federal government, especially
2 throughout the regulatory process.

3 Finally let me say how excited I am
4 personally to be a part of this discussion,
5 eRulemaking and the use of new technology in the
6 regulatory process are issues I've been working
7 on even previously in my career before coming to
8 Advocacy. Although Advocacy's work is often also
9 related to these topics.

10 Before focusing on the phenomenon of
11 mass comments, it's worth remembering why we have
12 a public comment process in the first place.

13 Which is that the public has knowledge that
14 regulators do not have and that they need to do
15 their jobs well. And that is true no matter what
16 the regulators to be doing. The common process
17 therefore needs to retrieve that information as
18 effectively and as completely as it reasonably be
19 achieved.

20 My comments from small businesses are
21 particularly important for three reasons. First,
22 small businesses play a significant role in the

1 life of the economy really outside its role.
2 About 47 percent of the private sector is
3 employed by small businesses as defined by SBA.
4 And small businesses create about 2/3 of net new
5 jobs. So it's a very important role in the
6 economy.

7 Second, small businesses generally
8 have less of a direct presence in other parts of
9 the regulatory process than large firms do. They
10 just don't often have sophisticated government
11 affairs that are in D.C. And third, small
12 businesses generally have less capacity to absorb
13 regulatory costs than large firms do, especially
14 when those costs are fixed across entities simply
15 because they have smaller revenue. So for those
16 reasons, it is essential that the public comment
17 process provide a reliable way for regulators to
18 get the information they need from small
19 businesses.

20 So with that in mind, how do the poor
21 quality mass comments affects small businesses in
22 the comment process? The most obvious problem

1 would be if legitimate small business concerns
2 are just lost in the flood. You can't find them.
3 The technology that we're seeing now, it's like
4 duplicate detection, are already mitigating that
5 concern to a certain extent.

6 A second more subtle effect might be
7 the tendency -- and this is something Patrick was
8 talking a little bit about -- to discount the
9 importance of a legitimate small business concern
10 just because it happened to be in a mass comment.

11 A good point is not less of a good point because
12 10,000 people happen to agree with it.

13 But even more important than those two
14 is the chance that a small business will sign on
15 to a poor quality -- and I'm emphasizing here
16 "poor quality mass comment", instead of -- where
17 they might have been willing to go back and write
18 a high quality one. Not everyone who does sign
19 onto that kind of comment would be willing to
20 write a high quality one. But if you could
21 convince even a small percentage to convert from
22 one to the other, it could really substantially

1 enhance the breadth and the depth of the record
2 and gives agencies a far better perspective on
3 small business concerns.

4 So the question is why would a small
5 business center choose to sign on to a low
6 quality mass comment rather than write a high
7 quality one. Well for one reason -- and this
8 goes to something that's already been discussed -
9 - someone might not be familiar with the APA and
10 might not understand what makes comments
11 effective. And the Office of Advocacy, others do
12 a lot of work to educate on that, but it's still
13 hardly what you would call common knowledge
14 throughout the economy.

15 Second, they might only find out about
16 a proposed regulation when they're presented with
17 one of these mass comments. And they might not
18 have time to go back and investigate and then
19 write a full comment letter right before the
20 comment period is going to close. Because there
21 aren't a lot of small business owners who read
22 the Federal Register every day.

1 Finally, writing a detailed comment
2 letter is hard work, especially if you're not
3 used to reading regulatory text. Especially if
4 you're trying to find out where the assumptions
5 are or even where the agency is to specifically
6 solicit feedback.

7 MR. SHEROUSE: -- low quality mass
8 comments is not to report problems so much as a
9 symptom of a problem that it's difficult to write
10 effective comments. So a key question is how can
11 the cost of writing a comment -- a good comment -
12 - Did we lose the mic? It's flashing. Can you
13 guys hear me? All right, there we go.

14 So we can think of low quality mass
15 comments as not the core problem so much as a
16 symptom of the problem that it is difficult to
17 write effective comments well. So the question
18 is how can the constant writing of a good review
19 process have the lowest possible relative to cost
20 of the mass comment? And I think this is where
21 eRulemaking and related technologies might be
22 able to help.

1 But in addition to mass comments,
2 there's been a bit of discussion of comments with
3 false names. I'm thinking about the goal of that
4 earlier of retrieving information from the
5 public. I do want to start with a little bit of
6 explanation because while it's not hard to
7 imagine various reasons to send anonymous
8 comments through comments with fake names, there
9 may also be understandable reasons. Even if
10 there are ones that you and I wouldn't
11 necessarily encourage or approve.

12 It's not difficult to think of why a
13 business might feel reluctant to criticize its
14 regulator on the record. That's just the
15 reality. So while it's understandable to want to
16 try to identify these comments, we should be very
17 cautious about assuming that they don't have any
18 value at all or dismissing them without at least
19 checking. Because if the comment is correcting
20 an error or fills in a data gap or suggests a
21 workable alternative, it probably shouldn't be
22 thrown away even if the name at the bottom is

1 wrong or missing. So throwing out solutions, it
2 seems clear that the shift to eRulemaking
3 presents an opportunity to make some improvements
4 in these areas. Marshall McLuhan said the medium
5 is the message here. I want to say that it's the
6 platform that's the message. By which I mean
7 that the way that the platform is structured and
8 the interface to it will have a huge impact on
9 how users interact with it.

10 And there are two facets of the
11 eRulemaking platform that I want to emphasize.
12 The first is discoverability. And while groups
13 like Trade Associations and groups like the
14 Office of Advocacy have a role to play here, an
15 eRulemaking platform can provide tools to make it
16 easier for small businesses and others or even
17 those other groups to identify relevant rules and
18 supporting documents -- and supporting documents
19 as early in the process as possible. I primarily
20 use Regulations.gov as a user. I'm not a
21 regulator. So I can tell you it can be more
22 difficult than you might expect, even for an

1 experienced user to find the exact right docket
2 and the exact right document within that docket.

3 Some of the research from earlier in
4 my year focused on using machine learning to
5 identify potentially effective industries for a
6 given regulation. But that's really only one
7 example. You could do the same thing with trying
8 to identify effective products for example or
9 participation in particular programs. And if you
10 want to go even further in a platform that
11 enabled regulations to have been put with that
12 kind of information directly in a machine
13 readable format, that information could be even
14 more reliable and precise. Whether or not
15 features like that are built into the platform
16 directly, there should certainly be continued
17 development and support of a robust platform API,
18 so that outside groups can continue to experiment
19 with these features themselves.

20 Second feature that I want to discuss
21 for eRulemaking is that while we probably won't
22 and shouldn't be getting rid of the traditional

1 comment letter any time soon, it does seem
2 worthwhile to experiment with ways of guiding
3 would-be commenters in writing effective
4 comments. And this is something that I think
5 might emerge as a theme for this panel. Having a
6 text spot that says, you know, "comment" may
7 sometimes invite just the similar kind of content
8 that it invites everyone else on the internet.

9 But there might be a way to use the
10 platform to encourage better comments by say
11 drawing attention to assumptions, especially
12 assumptions about costs. Finding the place where
13 the agency specifically requests comments. They
14 sometimes don't get comments back on those parts.
15 This kind of automates what Advocacy has tried to
16 do, what other groups have tried to do. Walking
17 a business through the process of making comments
18 as meaningful as possible. I will admit it is
19 not immediately clear what the best interface for
20 doing this might be. You can take it too far and
21 end up with something that's essentially a
22 survey. That's probably not what we want. But

1 there is also probably a good balance to be
2 struck somewhere. And I think experimentation is
3 probably the key to finding it.

4 So in some mass comments and comments
5 with false names are primarily a difficulty from
6 a small business perspective when they drown out
7 the valid small business concerns or when
8 commenters opt to sign on to a poor quality
9 comment, when they might have been willing to
10 write a high quality one. eRulemaking provides
11 an opportunity, not a fantasy, but an opportunity
12 for making that tradeoff less costly.

13 And finally, if the goal is to make
14 sure that we're getting the information from the
15 public, we should always be wary of discarding or
16 ignoring content the public provides. Technology
17 can be shifting through the pile less burdensome,
18 but we never want to throw out the valid
19 perspectives of small businesses or for that
20 matter, anyone else. Thank you.

21 MR. SCHROEDER: Thank you, gentleman,
22 again for coming. I really enjoyed the

1 discussion. The expertise that you bring is
2 meaningful. And like Dominic said, it's not us
3 speaking to the audience, it's bringing
4 perspectives of those that are practitioners and
5 researchers in the area.

6 This first panel has been focused on
7 the impacts of rulemaking. We'll be following up
8 with the second panel that's talking more about a
9 public policy perspective. The topics intertwine
10 a bit. Now that we've had all three speakers,
11 we're going to be going through 15 minutes of
12 question and answer. As Virginia starts to sort
13 through the questions and prepare them, I'm going
14 to ask a couple questions of my own.

15 So Executive Order 12866 requires
16 agencies to assess costs and benefits for
17 available regulatory alternatives. Oliver, I
18 liked your lead-in with talking about why do we
19 accept comments. So as a regulatory economist,
20 you have a perspective on the analysis that goes
21 into costs and benefits perhaps. And like
22 Patrick, you have a role also for advocating for

1 the perspective of businesses. And Patrick, from
2 your role, you advocate for smarter regulations
3 and common sense legal reform.

4 So my question is how can public
5 comment process best be applied to support the
6 consideration of regulatory costs and benefits?
7 So the roles the comments have of understanding
8 the rule. And doing that analysis to understand
9 what's the benefits and do they outweigh the
10 costs. And then on the other side of that, how
11 can regulators best get insight into common sense
12 regulatory reform through the comment process?

13 MR. SHEROUSE: Sure. So I'll start
14 with the portion of that question that was
15 directed to me. So a lot of the work that I do
16 as a regulatory economist is talking about
17 economic analysis, which usually shows up in
18 supporting document. And we're always trying to
19 work with agencies to help them improve it. And
20 the number one thing they say back to us is well,
21 we don't have any data on that topic. We want
22 you to fill something out. We don't have any

1 data. We don't have any information. And we
2 always answer, well at least ask for comment. At
3 least stick that in your economic analysis -- in
4 your regulatory impact analysis. Say that we
5 don't know this is a number that we have from
6 some source. We know it's probably not the best
7 thing that exists in the universe, but if you've
8 got anything better, please let us know. And
9 unfortunately, many of the times they don't get
10 any comment on that topic.

11 So to the extent that eRulemaking can
12 be used to help erect, like I said that kind of
13 knowledge that's out there in the economy. And
14 say even just how much does it cost to buy a
15 piece of equipment? How much would it cost to
16 add this to the job? Or if there were some kind
17 of a delay, what kind of effect would that have
18 on a particular business at some unit?

19 Those are things where agencies would
20 love to have the right information. And they
21 don't love having to guess. And they don't love
22 having to sift through or back things out or just

1 make, you know, assumptions because they can't do
2 anything else. So to the extent that comments
3 can be directly very specifically at those
4 points, I think it would both improve the
5 rulemaking process because you can use that
6 information and make better decisions. And the
7 agencies would be happy because they would have
8 less to talk to us about.

9 MR. HEDREN: Great. So I love the
10 question. I have a lot of things come to mind on
11 this. So let me start with the cost benefit
12 question because I think if we could answer that
13 -- I think OIRA in particular might be extremely
14 happy to find that there is actually some
15 solution to finding better quality analysis
16 around this.

17 Often times the public I think is not
18 actually that well positioned to evaluate on a
19 technical detailed level, the kind of specifics
20 of a cross benefit analysis. The range sometimes
21 across benefit analysis can be pretty simple.
22 And it identifies just a few factors. We think

1 this will be implemented by an HR professional.
2 Their average hourly rate is -- It will take him
3 about 30 minutes. And you look at that and you
4 say actually probably anybody could engage that.
5 No, I make more money than that. It's going to
6 take me way longer. That can be helpful.

7 Sometimes they're incredibly complex.
8 And when they are, I mean that type of expertise
9 is not prevalent necessarily among the public.
10 And I think where you're going to find this more
11 in possibly an inner agency process behind the
12 scenes. But otherwise with, you know, groups
13 like ours, groups like SBA that have some ability
14 to kind of crunch the numbers and sit with it and
15 try to understand it. That said, I think using
16 the tool to try and ask some critical questions
17 about what is a comment letter and I think I kind
18 of -- I really like that question and that point
19 -- could be really valuable.

20 And I would just kind of throw out to
21 the group, I'm guessing of most of the people
22 that I see right now, maybe 90+ percent of you --

1 of us, have filed a comment letter. It's almost
2 as natural as breathing for a lot of people in
3 the regulatory space. And think to yourself how
4 often you write a comment letter that begins
5 with, "Dear Sir or Madam or To Whom It May
6 Concern". And in our case, it would say The
7 National Association of Manufacturers represents
8 14,000 businesses large and small -- We have
9 killed so many trees with the formality of that
10 comment letter without delivering anything useful
11 to an agency.

12 So you have to get through the
13 predicate. And then all the sudden you get to
14 this, oh and we want you to do these five things
15 and here's why. Okay, well that's a lot more
16 valuable. Is the tool amenable to surveys when
17 it matters? So the surveys won't always be
18 appropriate, but there are many cases in which
19 you can envision the public having incredibly
20 relevant information in that process saying I am
21 the type of person that's mentioned by the agency
22 who will implement this. And I can tell you a

1 little bit about what that will be like. And a
2 survey function could be a good way of doing
3 that.

4 So asking critical questions about
5 what a comment letter is supposed to be and what
6 it is supposed to do, I think is a valuable kind
7 of soul searching exercise for all of us who are
8 kind of working with this 73 year old regulatory
9 system that basically looks exactly like it did,
10 except for the availability of these tools. So
11 are we asking the questions about what goes into
12 them?

13 On the second question, the common
14 sense question, a few things come to mind. I
15 don't know if I ever get an answer to this
16 either. So I apologize to the public here at
17 large.

18 A few things come to mind and jump out
19 at me. One is agencies are not passive
20 participants in this process. They're not kind
21 of trapped with what they receive. They're
22 ability to exercise some judgement here is pretty

1 great. I'm sure for those of us who file comment
2 letters, since that's when we do our very best
3 work and find that it's moved the agency less
4 than inch and that's life. Sometimes that's how
5 the process works.

6 How does a mass comment campaign
7 factor into that? Well sometimes I think you can
8 look to the normative point being made by a mass
9 comment campaign. They're by definition self-
10 interested. There is something that makes them
11 go. Something that makes them catch on with the
12 public. But they're usually pretty simple.
13 Sometimes they're pretty high quality and often
14 times they're not.

15 But they're usually some expression
16 from the public, not necessarily getting to the
17 cost benefit equation of 12866, but some of the
18 other things in 12866 and 13563 and others that
19 kind of govern this process that deal with why
20 are we regulating this? And have we chosen an
21 alternative that makes sense? And can we flag
22 that as a public not being regulatory

1 sophisticates? And if that's the case, then I
2 think that agencies can look at these campaigns
3 for what they are what they represent. And draw
4 some commonsense inferences from that.

5 MR. SCHROEDER: Thank you very much.
6 I don't want to spend any more time on our
7 prepared comments to make sure that we get to
8 those questions from the audience and online.
9 Thankfully we've been running ahead of schedule,
10 so we still have a good solid 15 minutes. I'll
11 go ahead and hand it off to Virginia for
12 questions from the audience.

13 MS. HUTH: All right. Hey, we've
14 gotten a couple great comments already. One I
15 think is a very foundational question. I'm going
16 to give it to Tobias. What percentage of
17 rulemakings having fake comments? Do you know?

18 MR. SCHROEDER: That's an excellent
19 question that I wish I knew the answer to in
20 specifics because I don't. I know that some of
21 the news outlets in their coverage did some of
22 their own analysis. What we're going to do is

1 we're going to take the integrity of the
2 rulemaking process very seriously and go through
3 an intentional rigorous phased process. And the
4 initial step of that is discovery. So we want to
5 make sure that we're gathering all the available
6 information that we can. And I emphasize
7 "available" from the partner agencies that we
8 interact with to get the statistics, so that we
9 can independently validate what those numbers
10 are. And identify what the risks are and respond
11 in a prioritized way to those risks.

12 MS. HUTH: I'm getting so many great
13 questions. Some of these I might have to spill
14 over into the second panel, so know I'll be
15 holding them. Related to the first question,
16 what is the definition of a fake comment?

17 MR. SCHROEDER: Okay. Again here and
18 I apologize to Dominic and his staff because I
19 know that there was a working definition that was
20 established. It's not official. And although I
21 don't have it memorized, I know that it centers
22 in on false attribution of identity. So sending

1 a comment and indicating that you are who you're
2 not -- that you're somebody other than who you
3 are.

4 MS. HUTH: Yeah.

5 MR. SCHROEDER: And that's not to say
6 again, you know, I will emphasize that in taking
7 this analysis of how we're going to address fake
8 comments, bringing that information to our
9 partner agencies and other decision makers on how
10 they want to respond to it, that we're going to
11 look at all potential aspects or areas of risks
12 including that false attribution component of it.

13 MS. HUTH: Yeah. I'll add to that,
14 there is a -- the system currently allows
15 anonymous comments, so that would not be a fake
16 comment. And that leads me into another related
17 question which is why don't we require someone to
18 authenticate their identity? Regulations.gov
19 requires an API key, why? And why doesn't GSA
20 require the same? Sorry, it's for Tobias again.
21 Sorry. I'll go to you guys quick.

22 MR. SCHROEDER: I apologize if I don't

1 remember all three parts of the three part
2 question. That first part of allowing anonymity,
3 rather than doing all the speaking myself, I
4 would like to hand that off to our speakers to
5 address that from your perspective.

6 MS. HOUTH: Actually, the anonymous
7 wasn't the question. The question was why
8 wouldn't we require someone to authenticate
9 themselves? And actually I think that is really
10 for the panel. I think that's really a public
11 policy question.

12 MR. SCHROEDER: Sure.

13 MS. HOUTH: What are the pros and cons
14 of asking someone to authenticate themselves? So
15 let me offer that to you guys.

16 MR. HEDREN: If you don't mind, I have
17 an example that jumps to mind.

18 MR. SCHROEDER: Yeah, please.

19 MR. HEDREN: This is funny. So this
20 agency is sort off plan so to speak for
21 Regulations.gov. But for better or for worse, I
22 frequently comment at the Postal Regulatory

1 Commission on issues of postal reform. And the
2 PRC has a system of validation for commenters.
3 So there actually are examples of this throughout
4 there. And just as a kind of quick and yet, it
5 changes the relationship with the regulator. It
6 sort of -- your first comment of three types of
7 things and then you send in a form and they know
8 who you are.

9 And I think it's because in this case,
10 the universe of commenters is so small compared
11 to what you might see at the FCC or Treasury or
12 wherever, that it can kind of make sense. But it
13 is a barrier and it prevents, I think, many
14 people from engaging on a subject that they might
15 not be sophisticated on necessarily in the kind
16 of ways of postal law. For that matter, I'm not.
17 But they may have a very valid point to make by
18 weighing in.

19 MR. WIJESINGHE: I was going to add,
20 you know, it's a very personal choice on, you
21 know, whether you choose to reveal your identity
22 or not. And there may be some very valid reasons

1 for that. Certainly I think there is you know, a
2 notion of mass comments that have no attribution.
3 I think, you know, my personal opinion about that
4 is you're kind of essentially losing the mark
5 there with that one just because, you know, the
6 mass comments supporting a particular position,
7 the whole point is if you can assign and align
8 multiple points of view to that, that adds some
9 weight in terms of how important that might be to
10 a certain community. But doing mass comments
11 with no attribution is a petition with only your
12 name copied in 10,000 times. So I think there's
13 some boundaries around when anonymization may or
14 may not be kind of useful. But as I said, it
15 seems like everyone will have their own opinions
16 on this.

17 MR. SHEROUSE: Yeah. And I so I had
18 mentioned that it's easy to imagine a case where
19 putting on a false or anonymous comment might
20 make sense, we don't really know empirically how
21 often those comments are the sort that are good
22 and people just don't want to reveal their

1 identify. Like I can imagine, but I don't know
2 empirically how often that happens.

3 So I think as we get a chance to
4 analyze that more, we can maybe arrive at a point
5 later on where we can say how likely these things
6 are relative to each other. So I'm very cautious
7 on foreclosing on things that are possible right
8 now, not knowing relative likelihood. So that
9 drives a lot of my thinking on this particular
10 topic.

11 MR. SCHROEDER: Okay. Patrick thank
12 you for mentioning that Regulations.gov is not
13 the only game in town. It is very much the most
14 widely used among federal agencies as an
15 electronic notice and comment system. So the
16 eGovernment Act of 2002 did require electronic
17 dockets and an electronic means for receiving
18 comments. It did not require the use of a shared
19 service. However in that same year through the
20 eGovernment Act and OMB memo, there was an effort
21 to try to consolidate news shared services.

22 And what I can say for Regulations.gov

1 typically a good rule of thumb is to say that if
2 we aren't requiring identification
3 authentications, it's because that's what our
4 partner agencies have requested in the
5 functionality. We provide a federal shared IT
6 service for those agencies that we do serve.

7 I can further say that it really
8 depends on agency to agency perspective. The
9 current Regulations.gov that's been in place for
10 many years provides a significant amount of
11 flexibility to agencies to choose whether they
12 accept comments anonymously or whether they
13 choose to ask for your name or other information.
14 Even in those cases where they do ask for it,
15 we're not validating it. We're just providing
16 the fields and we may require that you put
17 something in there. But you could say that
18 you're Mickey Mouse and not who you actually say
19 that you are.

20 Identification and authentication is
21 an entirely different thing. That's where you're
22 using services perhaps like LexisNexis or others,

1 you know, where you can verify somebody's
2 identity. And then once they establish User ID,
3 passwords, you know, authenticate them each time.
4 And I think as referenced here, I can't speak for
5 the agencies, but there is that push and play of
6 how are we protecting against false attribution
7 of identify on the one hand? You know, and then
8 on the other hand, how are we impeding open
9 access and the desire to maximize public
10 participation?

11 MS. HUTH: Thank you. Here's another
12 related question. So I understand comments
13 aren't votes, they convey information. If so,
14 why do the fake comments matter? If it's just
15 info, why do we care about fake comments really?

16 MR. HEDREN: Sure. Okay, I love that
17 question. I think there's a lot in there to
18 unpack. And there's sort of a question of well
19 should we? Right? If as -- I'm trying to
20 remember who originally said this -- but if rules
21 are the handbook to how a statute works, then the
22 relevant questions are about why in fact and how

1 the agency should fill in the gaps. So does it
2 matter? I'm not sure.

3 I think there is some value for people
4 from the perspective of getting and soliciting
5 engagement from the public to bring them a little
6 bit closer to their government by pulling them in
7 through a system that fits their needs. To
8 comment on something and have their voice heard.
9 I'm not sure that we have anything smarter to say
10 than that really.

11 MR. WIJESINGHE: So I make the
12 distinction here in terms of where that comment
13 originates. So if it's coming from a machine and
14 a bot, this is the opinion of a non-carbon life
15 form that's trying to skew public opinion. And
16 it does matter in that context. For that example
17 with the Idaho Medicaid case, the 1,000+ bot
18 generated deep fakes outnumbered the citizen
19 comments. And basically they were very well
20 structured. They had clear arguments. They
21 mapped to the rule. And if they weren't
22 withdrawn, you know, that may have shifted public

1 policy in something really important. So there's
2 a need here to disambiguate perhaps the mass
3 comments that originate from attribution to
4 individuals. You know, it's very real. And
5 those that basically are generated as pure
6 identification factors by machines that have
7 really no other objective than to disrupt
8 society.

9 (Off-mic comment.)

10 MR. WIJESINGHE: So the matter of law,
11 I think will have to go to someone else.

12 MS. HUTH: Next panel.

13 MR. SCHROEDER: Virginia, just to give
14 you, we're right about five minutes. So maybe
15 the last question.

16 MS. HUTH: Yeah, we've got about five
17 minutes. Let me read another question here.
18 There's so many here. So a lot of people say
19 engage the public for comments and provide
20 templates for suggested language. This makes it
21 easier for people to participate. And the fact
22 that the letters are similar or even identical,

1 that doesn't mean the views aren't relevant.
2 They aren't actually for the individuals. What
3 are your thoughts? I mean does the fact that
4 people are involved in mass comments, does that
5 mean that their votes don't count as much as if
6 they sent the right letter? Are they
7 disenfranchised in some way? Is this a concern
8 at all?

9 MR. SHEROUSE: Yeah, I'll jump on this
10 one. So I mean I think part of the question was
11 do their votes not count? We always want to
12 reemphasize that it's not a vote. It really
13 depends, I think, on the template here. Right?
14 Because what we need is, we being society, is for
15 information the regulators don't have to get to
16 that. So they can work the best. That's how I'm
17 framing it. Folks might want to take a different
18 view from different perspectives.

19 But if the template has all the useful
20 bits of information, then getting it to the
21 agency several times with different personality
22 and flavor in the gaps, that's not that much more

1 helpful. If the template helps someone say
2 something unique about their business that they
3 are in a position to know that other people are
4 not in a position to know, then that is a wholly
5 good thing.

6 We should encourage it. And that will
7 help make the regulatory record better. It will
8 help make decision making better because then
9 you're getting what's important to the agency.
10 And that's kind of why I think each of us has to
11 focus a little bit on saying, it would be
12 wonderful if we can figure out a way that a
13 platform can help do that. Although it's easy to
14 say that and harder to figure out exactly what it
15 looks like.

16 So the fact that some language is not
17 much --

18 MS. HUTH: All right, we have time for
19 one last question. There are a few others, but
20 I'll fit them into the next panel if I can. This
21 is for Tobias. So you know, this is going to be
22 costly. What's the timing for incorporating any

1 technology into manage fake comments? What's the
2 timing?

3 MR. SCHROEDER: The answer of specific
4 timing, what we're going to deliver is going to
5 be driven by the process of the analysis. So
6 again, I want to emphasize that my role is to
7 deliver a good quality shared IT service. And
8 developing these IT services or modernizing them,
9 you go through a process. And that includes a
10 phase of discovery, whether you're gathering
11 what's the problem that we're going to solve?
12 What are the most valuable services? What are
13 the highest risks? And then you weigh that
14 against what are the technical solutions? How
15 much do they cost? How hard are they to deliver?
16 And you integrate this variety of criteria into a
17 set of information for decision makers.

18 And ultimately -- again I serve a set
19 of partner agencies with oversight from OMB and
20 present this information to them to act on. I
21 can say that from a practical perspective, we
22 want to first focus in on service continuity to

1 make sure that the existing important services
2 remain in place as parts of our IT infrastructure
3 get older. And think about how quickly we can
4 move to the next thing. How to improve our
5 existing services and how to look at a potential
6 perspective of what our future services might
7 look like.

8 Another priority in addition to that
9 initial service continuity question is what are
10 the risk-based decisions that we need to make in
11 response to mass and fake comments? And what
12 among those criteria, the easiest solutions that
13 we might be able to put out there that at least
14 address and mitigate some of the risks as quickly
15 as possible? We don't have specific timelines.
16 I can say that as quickly as possible. And we do
17 have a fixed budget and we'll move forward with
18 the analysis with urgency and a sense of a
19 perspective on the importance of the perception
20 and the reality of the integrity of the
21 rulemaking process.

22 MR. SCHROEDER: All right, that's on

1 the dot. Gentleman, thank you again.

2 All right, Panel 2, as I introduce you
3 again, you can also come up to the stage. Our
4 second panel's going to focus more on the policy
5 perspective of mass and fake comments. So I'd
6 like to introduce Reeve Bull, the Research
7 Director of the Administrative Conference of the
8 U.S. Dr. Steven Balla, Associate Professor at
9 George Washington University. And I apologize
10 again to Oliver for not appropriately saying
11 George Mason University in your case. And
12 Michael Fitzpatrick, Head of Global Regulatory
13 Affairs at Google.

14 So Reeve Bull is the Research Director
15 of the Administrative Conference of the U.S.
16 He's worked on projects related to international
17 regulatory cooperation, the use of science by
18 administrative agencies, presidential review of
19 agency rulemaking, cost benefit analysis,
20 government contractor ethics and eRulemaking
21 among other things. He's an elected member of an
22 American Law Institute. He sits on the counsel

1 of the American Bar Association Administrative
2 Law and Regulatory Practice section. And is also
3 the Vice Chair of the Sections Rulemaking
4 Committee.

5 Dr. Balla is Associate Professor of
6 Political Science, Public Policy and Public
7 Administration and International Affairs. And a
8 Senior Scholar at the George Washington
9 Regulatory Study Center. He researches
10 government consultation and public participation
11 in policy making in the United States and China.

12 And I'll quickly give the bio for --
13 This wasn't cued up in the best order. Michael
14 Fitzpatrick's the head of Global Regulatory
15 Affairs at Google. Previously Michael was Head
16 of Regulatory Advocacy NGE for seven years. And
17 before that, he served as Associate Administrator
18 of OIRA in the Obama Administration as a Senior
19 Advisor to the OIRA Administrator and the Clinton
20 Administration. He's a Senior Fellow with ACUS
21 and a Fellow of both American Law Institute and
22 National Association of Public Administration.

1 So I'll hand it off to Dr. Balla for
2 his remarks.

3 MR. BALLA: Over the last few years,
4 we've been, with a bunch of colleagues at George
5 Washington University, working on a project on
6 mass comment campaigns and agency rulemaking.
7 And I want to spend a few minutes sharing what
8 we've been up to, what we've found. And what we
9 think some of the broader implications of the
10 research are, but for the larger interests we're
11 discussing today.

12 So just to review the bidding, what
13 are we talking about with mass comment campaigns?
14 These are collections of identical, near
15 duplicate comments -- thank you -- that are
16 sponsored. How do they appear in the docket?
17 They're sponsored by an organization. We've
18 heard from several organizations that are active
19 in this space. And who's submitting these
20 comments? It's group members. It's supporters
21 of the group's mission.

22 Now our focus in the research project

1 is on three main questions. So first, who
2 sponsors mass comment campaigns? So who are the
3 organizations that are doing it generally
4 speaking? Secondly, what do these mass comment
5 campaigns say? What is their content? And then
6 finally, what do agencies do with mass comment
7 campaigns? So how do they handle them once they
8 come into their dockets?

9 So our focus, next slide, is on the
10 EPA for a couple of reasons. One, EPA is a great
11 place to start for looking at this phenomenon
12 because the agency's an active rulemaking agency
13 with stakeholders on all sides of the issues that
14 it regulates on. More practically speaking, the
15 agency does, to the best of our knowledge, you
16 know, relative to other agencies, an interesting
17 way of recording these mass comment campaigns in
18 a transparent and a systematic way that's easily
19 accessible and understandable.

20 So for example, when a mass comment
21 campaign comes into the EPA -- and by the way,
22 we're taking the EPA's judgement at face value

1 here -- So what the EPA says is a mass comment
2 campaign for us as researchers is a mass comment
3 campaign. Sidebar, we do mess around with that
4 a little bit in the analysis, but that's a story
5 for another day. When the mass comment campaign
6 comes in, the agency creates a record in
7 Regulations.gov.

8 What's that record contain? Up at the
9 top of the screen, the mass comment campaign
10 sponsor if the agency is able to figure that out
11 is identified. In the one that we're looking at
12 here, it's the Natural Resources Defense Council.
13 On the right-hand side, the agency notes how many
14 of these identical and near duplicate comments
15 there are in the docket. So in this case, it's
16 over 100,000 in the campaign that we're looking
17 at. And the finally on the lower left-hand side,
18 the agency presents one illustrative comment in
19 that campaign. So here it's as a PDF attachment.
20 But note what that means is there aren't 100,000+
21 records created in Regulations.gov, there's one
22 record created that then references the number.

1 Gives a flavor of the content. And if it's
2 known, talks about who the organization -- who
3 sponsored the campaign.

4 So now if we look at who the sponsors
5 are, to get that first question. We're not
6 always able to -- The EPA is not always able to
7 identify the sponsoring organization. So that
8 was a point that was raised on the previous panel
9 about anonymous mass comment campaigns versus
10 those that are attributable to a group. And we
11 can talk about that in the Q&A if anybody is
12 interested about the differences across these two
13 types.

14 We've divided simply two broad classes
15 of stakeholders, if you will. At the top --
16 that's not a great name -- Advocates of Intrinsic
17 Regulations. What we mean by that is
18 environmental advocacy groups like the NRDC,
19 Labor Unions, general progressive type groups
20 organizing for actions, that set broadly speaking
21 of groups.

22 We might expect that as mass

1 membership organizations, these are going to be
2 organizations that are particularly active in
3 this space. And that's certainly true. But if
4 you look at the bottom half of the table,
5 regulated entity. So in the case of the EPA,
6 it's mainly the agriculture industry, the Energy
7 sector. They're actually players in this space
8 as well. And again, Patrick suggested that NAMs
9 active in mass comment campaigning. There is a
10 lot of that in the sectors that the EPA is
11 usually interacting with in the notice and
12 comment process.

13 If we look at those two numbers, 542
14 versus 198, that's about 75/25 breakdown in terms
15 of percentages. So certainly the mass membership
16 groups, sort of the traditional advocacy groups
17 if you will, are more active in this space. But
18 there is mass comment campaigning happening
19 across a variety of stakeholders. And we were a
20 bit surprised to see how much activity there was
21 in fact among what we're calling here "regulated
22 entities." We thought that would be a much rarer

1 occasion.

2 Now what do they say? So what we're
3 going to just depose here on the screen in front
4 of us, if we go to the next slide is two extreme
5 examples of mass comment campaigns. On the left-
6 hand side, you are looking at a mass comment
7 campaign in its entirety. The text of the
8 campaign in its entirety. Twelve words to say
9 thumbs up to the clean power plant. So that
10 campaign, that was initiated by a state level
11 environmental group.

12 On the right-hand side, this is the
13 other extreme. This is from a national
14 agriculture organization, this is a very small
15 snippet of a much longer mass comment campaign.
16 So I want to emphasize both those points.
17 Because it's a very detailed campaign -- a very
18 detailed comment that was submitted by many,
19 many, many different individual commenters --
20 individuals or organizations. In this little
21 piece that we're looking at, you can see there's
22 data, there's analysis. This is a well-reasoned,

1 well researched, well sourced mass comment
2 campaign. So those do exist.

3 And so I want to emphasize that there
4 really is variety in the space of what we call a
5 mass comment campaign. Now certainly if we --
6 where's the center of gravity? It's more toward
7 the left-hand side of the screen. That's for
8 sure in terms of raw numbers. But those mere
9 statements of directional preference and nothing
10 else in terms of argument or evidence. But we do
11 see reasoning and data on occasion.

12 Finally third question, how do
13 agencies handle mass comment campaigns? So we
14 looked here at a number of different sources; one
15 of which I'll show you. Which is the response to
16 comment documents that the EPA will put out,
17 along with its final regulation. And a typical
18 template for these documents which can be
19 hundreds or thousands pages long is to exert one
20 comment or a series of comments. And then
21 respond to that particular argument or piece of
22 evidence that's being raised.

1 And what we found is when we look
2 across mass comment campaigns versus your, if
3 you'll call it, traditional stand-alone comments
4 that we historically think of in the notice and
5 comment process, what the EPA typically does is
6 with a mass comment campaign that makes like a
7 quick directional statement. We love your rule,
8 we hate your rule, and nothing else, that tends
9 to get mentioned almost every time in the docket.
10 But the agency's response, it's usually mentioned
11 one time. The agency responds quickly and it
12 moves on.

13 What about the more substantive
14 comments, if you will, that have reasoning and
15 evidence? You'll see the agency repeatedly going
16 back to those comments, addressing each piece of
17 evidence or substantive point individually. So
18 we do see the agency able to deal with mass
19 comment campaigns in what we think might be an
20 appropriate manner. Mention that they were
21 received. React to them quickly. And move on
22 and spend much more time with the other comments

1 on the docket. I'll come back to that in a
2 second.

3 Last slide, our view of mass comment
4 campaigns if I could sum up, it is indeed a form
5 of participation that's exercised by a variety of
6 stakeholders. So it's not just the mass
7 membership groups per se that we might
8 traditionally think of. Again most of the time,
9 statements of directional preference, for or
10 against the rule, nothing else. But occasionally
11 -- not rarely, occasionally data argumentation.
12 And then finally at least in the context of the
13 EPA, we see the agency readily identifying the
14 campaigns, cataloguing them in a systematic and
15 you know, accessible way in Regulations.gov. And
16 then responding to them in a way that we think is
17 reflective of their content.

18 So if we get to the last point at the
19 bottom of the slide. If we step back from the
20 empirical findings, we don't see mass comment
21 campaigns as an abuse of the rulemaking process.
22 We think they're a legitimate form of expression

1 in this particular space.

2 That said, we don't think mass comment
3 campaigns have democratized the rulemaking
4 process. There was so hope of that a decade+
5 ago. Nor do we think that agencies have been
6 inundated with notice and span that has ground
7 their decision making processes to a halt. If
8 anything, we see these campaigns as a phenomenon
9 that are managed within the -- you know, the
10 technology hasn't changed the process, rather the
11 process has adapted to the technology. And so
12 that's why we don't see these at least -- most of
13 the time and it's currently constituted as an
14 abuse of the rulemaking process. Thank you.

15 MR. SCHROEDER: I'm going to make one
16 quick clarification to Dr. Balla's remarks and it
17 doesn't change substantively what he said. I
18 just want to emphasize that regardless of whether
19 it's a mass mail campaign or an individual very
20 unique comment, every individual comment that
21 comes into Regulations.gov does get saved as a
22 record.

1 Once an agency uses some of our tools
2 like the duplication to identify that they're
3 mass mail campaigns and chooses to have one
4 representative comment reflect this larger --
5 that's what they by intention are publically
6 posting to Regulations.gov for people to see.
7 But I do want to provide assurance if as part of
8 a mass mail campaign, you provided a little bit
9 of uniqueness to a form letter, all those
10 original comments are saved and are seen by the
11 agencies.

12 And next I'll go to Reeve Bull.

13 MR. BULL: Wonderful. So let me first
14 say thank you to GSA and to Tobias and Virginia
15 for putting on this excellent forum on a very
16 important topic. And for inviting me to
17 participate, along with my distinguished co-
18 panelists.

19 So what I'd like to do in my remarks
20 is first look at a very fundamental question,
21 which is what is the purpose of notice and
22 comment? What are the fundamental goals that the

1 agency and the APA are trying to accomplish by
2 creating this mechanism for public participation?
3 And I think this is important because I think the
4 reasons behind notice and comment really shape
5 whether or not mass and fraudulent comment
6 campaigns are a problem. And if so, how the
7 agency should best go about responding to these.

8 And then what I'd like to do then is
9 look at mass and fraudulent comments
10 individually. Because I think in light of those
11 policies, each of them raise sort of distinct
12 issues. And what the optimal response looks
13 like, I think varies in each case.

14 So first with respect to the
15 underlying purposes of notice and comment. So I
16 think at the simplest level, you can basically
17 say that when somebody files a comment with an
18 agency, the comments sort of fall into two broad
19 categories. I mean there's of course overlap
20 between the two. But the first type of comment
21 are those expressing fact. Providing data to the
22 agency either supporting the position that it

1 wants to take or opposing the position that it
2 wants to take. And trying to influence the
3 agency's decision making accordingly.

4 The second broad type of category are
5 those expressing opinions. Now obviously there's
6 extensive overlap between the two. Pretty much
7 every comment is going to express an opinion one
8 way or the other. But as Steve's data shows,
9 sometimes a comment is nothing but an opinion.
10 It's I support this policy or I don't support the
11 policy. Or as other times, it's accompanied by
12 data that the agency can then consider.

13 So I think that this is relevant first
14 with respect to what the underlying law is. So
15 the underlying law is the APA. And the law is
16 very, very clear that with respect to the fact,
17 with respect to data, the agency is legally
18 required to take that into account. The exact
19 language of the ADA says that the agency is
20 required to consider the relevant matter
21 presented. And if a commenter provides data and
22 the agency ignores that, that the rule can be

1 challenged on judicial review and potentially set
2 aside if the agency failed to take that data into
3 account.

4 With respect to opinion though, the
5 law is much less clear. Indeed it's not clear
6 whether the agency has to take opinion into
7 account or conversely whether the agency is even
8 permitted to take opinion into account. So to
9 consider an extreme example, you know, what if an
10 agency received 100 comments; 55 in favor, 45
11 against. And the agency said well okay, you know
12 the preferred outcome is in favor. So we're
13 adopting the rule for that reason alone. I think
14 it's probably fair to say that a court would
15 strike that rule down on judicial review as
16 arbitrary and capricious unless the agency had
17 additional data -- additional information
18 justifying the decision that it made.

19 So the law is pretty clear. The fact
20 has to be taken into account. The opinion maybe
21 or maybe not. I think fact/opinion distinction is
22 also very relevant with respect to how the

1 process is perceived. And what I think is
2 interesting is that it's perceived differently by
3 the agencies on the one hand or the government
4 and by perhaps the broader public on the other
5 hand. So the agency, I think to their credit --
6 and you heard this again and again in the first
7 panel -- I think have been very, very consistent
8 in saying the rulemaking process is not a
9 plebiscite. It's not a vote. We're not
10 tabulating the number of comments in favor or
11 against.

12 Now of course there have been
13 instances where like in the Waters of the United
14 States rule a few years ago, I think it was EPA
15 that pointed out that a certain percentage
16 favored the policy. I think this came up in Net
17 Neutrality recently as well. But generally it
18 only comes up if the comments point
19 overwhelmingly, you know, in one direction or the
20 other.

21 On the part of the public though, I
22 think the perception is quite a bit different.

1 And I think this was particularly shown in the
2 reaction to the Net Neutrality rule where the
3 comments, at least in one iteration sort of
4 overwhelmingly point it in one direction. And I
5 think that people really considered it
6 problematic from their perspective that the
7 agency might take a position that is different
8 from what the vast majority of commenters might
9 have preferred.

10 And with respect to that latter aspect
11 -- the democratic aspect if you will -- that's
12 where I think a lot of the problems potentially
13 start to arise in the mass commentary and in the
14 fraudulent comment area. So let me move to that
15 and address each of those individually.

16 So first with respect to mass
17 comments, now I know this is sort of admittedly,
18 sort of an esoteric topic. And this is probably
19 the only thing I'll say today that has even a --

20 (Off-mic comment.)

21 MR. BULL: -- I don't think it's ever
22 legitimate in a mass comment campaign for the

1 agency to tabulate the number of comments
2 received and say we got this number of this
3 percentage in favor or against. Even if the
4 comments are 99 percent in one direction or the
5 other. I think that the agency should certainly
6 consider mass comments. They should certainly
7 consider the relevant information -- the facts
8 contained in those comments. But I don't think
9 that the overall number or percentage should ever
10 matter.

11 So why do I think that? Well first of
12 all, these comments are generally -- I think this
13 is pretty clear in the social science literature
14 going to be wildly unrepresentative of the public
15 opinion in a lot of cases. People who are
16 motivated to comment generally have strongly held
17 views in one direction or the other. So you're
18 not getting a true gauge of public opinion when
19 you're tabulating comments.

20 Secondly, and this is where I think
21 the mass comment phenomenon ties in with the
22 fraudulent comment phenomenon. So you know,

1 mentioning the FCC Net Neutrality rule, you saw
2 a huge effort on both sides to engage in a
3 fraudulent comment campaign. There was
4 misappropriation by identity. And I think the
5 whole reason that, that happened presumably --
6 and it wouldn't have happened if people didn't
7 think the overall number of comments matters. So
8 I think it creates an incentive problem when the
9 agencies are, you know, posting the percentage of
10 comments received. And indeed it creates a real
11 risk of fraudulent comment campaigns.

12 Now this is not to say that the public
13 opinion isn't relevant. There are probably
14 better ways that the agency could go about
15 ascertaining public opinion; an opinion poll
16 perhaps. Or we at the Administrative Conference
17 have recently issued recommendations on early
18 public input that I think would give the agency
19 a truer sense of what the public sentiment is.

20 So perhaps you could just convene some
21 sort of Advisory Committee that includes a
22 demographically representative set of citizens.

1 We have a recommendation on negotiated rulemaking
2 and sort of things short of negotiated rulemaking
3 that might look sort of like that. You could
4 have some sort of listening session where you
5 invite members of the public in to express their
6 views. I think either of those or any of those
7 would give you a truer sense of what the true
8 public opinion actually is.

9 Now with respect to fraudulent
10 comments -- and this actually interestingly came
11 up in one of the questions in the last panel. So
12 if we're looking at it from a factual
13 perspective, do fraudulent comments really
14 matter? And I think the answer is maybe. If the
15 comment, even if it is a fraudulent comment, has
16 factual information in it that's relevant and
17 that information is verifiable in it, the agency
18 should take it into account even if the person
19 filing the comment is not the same person who
20 signs his name at the bottom of it.

21 Interestingly, I think you see the
22 same thing with bot comments. That if an AI

1 program could actually generate a comment that's
2 relevant, that contains useful information, in
3 theory yes, the agency should take that into
4 account.

5 However, and this is why I said maybe,
6 there are certainly instances where the identity
7 of the person may matter. So if it's a trade
8 group or some other entity that has expertise and
9 there's a misrepresentation as to who's filing
10 it, then I think the identity does matter. Or if
11 a person reports to have situational knowledge,
12 then I think the identity matters.

13 So there are risks certainly with
14 respect to fraudulent comments, even in the
15 factual arena. In the opinion arena, I think
16 that again because it's not a vote, it's you
17 know, perhaps less of an issue. However, it can
18 affect the perceived integrity of the process if
19 you have a fraudulent comment campaign. And
20 that's certainly something relevant the agency
21 should take into account.

22 The final thing I'll mention is that

1 I've looked at this solely from the perspective
2 of the policy making process itself. Obviously
3 there are any number of other legal and other
4 issues associated with fraudulent comments. Most
5 important, identity theft which is probably a
6 federal crime if a person is filing information
7 with the government and misrepresenting his or
8 her identity. And there are other issues related
9 to copyright and privacy and indecency and any
10 other number of issues arising in both mass and
11 fraudulent comments area. I've not looked at
12 those, but those are obviously important legal
13 issues that agencies need to grapple with. Thank
14 you.

15 MR. SCHROEDER: Okay, next we'll move
16 on Michael Fitzpatrick from Google.

17 MR. FITZPATRICK: Thank you, Tobias.
18 And I did actually bring a tie with me. It's
19 sitting in my bag in the back, but I thought I
20 would play to type and be the only panelist who's
21 not wearing a tie. I'm not wearing blue jeans,
22 which is where I did draw the respect line here.

1 This is like I tuxedo where I work. But I have
2 a lot of these left over from the White House
3 NGE. So listen, I'm really glad to be here
4 today. And thank GSA for putting on such an
5 important symposium on an important issue.

6 So let me start with maybe a more
7 concerned perspective. And again, I will like
8 Reeve, emphasize that I am most definitely here
9 representing my own views and not those of my
10 corporate boss. But I am quite concerned about
11 the proliferation of fake comments. I think mass
12 comments is a whole other matter. And I think
13 it's a matter substantially of agency process
14 management and you know, what level of attention
15 they should be given.

16 But the question of fake comments goes
17 in my view to the heart of our democratic process
18 and the integrity that society views our
19 democratic process -- our government institutions
20 as having. And you could say that perception is
21 reality. Whether or not an agency is able to
22 deal with fake comments and whether or not they

1 actually impact the substantive decision made, I
2 think is one question. And I have actually faith
3 that agencies are going to be able to manage this
4 quite well.

5 But I think the perception problem is
6 huge. And we live in a time where there is
7 decreasing trust in all of our institutions, not
8 the least of which are government institutions.
9 And I think the last thing we need is a common
10 view that essentially the entire rulemaking
11 process is being gamed by a variety of machines
12 and shadowy players.

13 And in some instances, that's true at
14 a substantial scale. So my view is it's only
15 going to get worse. Mark my words. What we see
16 now will be some digit X worse and more
17 sophisticated and more prolific in five years and
18 ten years. And that to do nothing is to sort of
19 concede that space. And to fight back will at
20 least slow the advance of something that could
21 become I think even more damaging.

22 So the question then is what? And to

1 borrow a phrase from Dustin Hoffman in the
2 Graduate when he said "plastics", I'm going to
3 say "machine learning". Right? So I'm here to
4 talk a little bit about the technology solutions
5 that are available to agencies, many of which
6 they already know about, folks. Okay? So they
7 are hip to these and they're exploring these.

8 I'm also here to say that while I'm
9 going to reference some tools and solutions that
10 are available by Google -- or from Google, I am
11 here also to say that there are many worthy
12 competitors and there are many variations on
13 these same tools that are available from any
14 number of technology companies. But I'm going to
15 speak to a few that I'm most familiar with.

16 And these tools are available to
17 mitigate against a number of bad actions. Right?
18 So there are tools that can deal with spam and
19 toxic comments. Publishers are very concerned
20 with this -- toxic comments. Right? How it
21 impacts comment rooms or comment discussions that
22 are ongoing on their websites. And there are

1 tools that have looked at millions of comments
2 and then sent -- it goes out to tens of millions
3 of potential commenters and asked them, what
4 types of comments shut down discussion? Right?
5 And it's extraordinary the learning that you can
6 get from that. And publishers for instance, can
7 then key that into their comment discussions when
8 they try to deal with complex questions of
9 content moderation. Right?

10 There are also tools that can check
11 URLs against lists of millions of known unsafe
12 sites including sites engaged in phishing,
13 deceptive sites that may have malware that could
14 infiltrate an agency's systems. And they're
15 quite, quite effective in fighting back against
16 those types of risks.

17 I'm going to focus though on the
18 question of bot-driven comments, which I think is
19 driving a substantial proportion of the activity
20 that's of concern to agencies and to the
21 regulatory process. And the good news I think is
22 that type of activity is more easily challenged

1 by machine learning tools than are human-
2 submitted comments that may be fake. Right?
3 They may be what we call synthetic identities.
4 So where people are misappropriating an actual
5 identity or they may be utterly fake identities
6 where something's being submitted either
7 anonymously or under a -- using a fake person.
8 Okay?

9 If it's bot-driven, there are real
10 tools to fight back. And I'm going to talk about
11 one in particular. And that is reCAPTCHA. And
12 a lot of you are familiar with this. I was
13 joking with some of our engineers that I've had
14 nightmares about clicking on photos of school
15 busses and bridges. You're all familiar to that.
16 It really can get deep, deep into the gerbil
17 brain.

18 But the good news is, imagine that
19 where each time a -- that's very effective by the
20 way in fighting back against bots. Imagine if
21 every time a comment was submitted, that
22 mechanism of protection was instigated. That

1 adds what we call a lot of friction to the
2 process. And this is the great balance for
3 agencies and for the rulemaking process. Right?
4 They want to protect -- we want to protect
5 against bad actors, but we don't want to add a
6 level of friction that deters democratic
7 participation in the process. In particular,
8 participation by people with fewer resources,
9 right, and less sophistication. The big boys and
10 girls, the NAMs, the Googles, we know how to do
11 this. Right? And we're going to have the
12 resources to do it. But it's going to be harder
13 for individual actors, small businesses, et
14 cetera.

15 There are versions of reCAPTCHA now
16 that are quite sophisticated. And this is how --
17 this is how they work. They're invisible. So
18 what happens is the enterprise and Google for
19 instance will undertake to screen every single
20 interaction with the website using an individual
21 token for that particular interaction. Everybody
22 is treated as a first time user.

1 There are sophisticated collections of
2 data around -- not personal data -- data around
3 how the submission is being made. Click speeds.
4 Click patterns. The nature of the comment that's
5 actually being filed. And using machine
6 learning, you can draw a risk score between one
7 and ten that is predictive of whether or not that
8 is a suspect bot-driven submission. Zero being
9 it is with 100 percent certainty or almost 100
10 percent certainty, bot-driven and ten, human
11 driven.

12 The agency can then set a filter -- a
13 triggering filter where it feels is appropriate.
14 Okay? They can set the sensitivity. And they
15 can allow through comments without challenge up
16 to a certain threat level. And after that, there
17 will be some kind of triggering challenge. It
18 can be two fact for authentication. It can be
19 a phone call. It could be the dreaded reCAPTCHA
20 widget. Right? But that will substantially shut
21 down the bot activity. And will add very little
22 to no friction for legitimate users.

1 You could also segregate any red
2 flagged submissions and put them in a separate
3 category to be dealt with later. And that's a
4 decision that can be made by the agency. The
5 machine learning tool will continue to learn over
6 time and perfect its precision so that what you
7 end up doing at the end of the day is reducing
8 false positives, which is what you want to do.
9 You don't want to restrict the submission of
10 legitimate comments by legitimate people and
11 increase the accuracy around real positives.

12 Let me finish with one last thought
13 about human-driven, non-bot driven fake comments.
14 These are without a doubt more difficult to
15 mitigate. And I think there are some serious
16 policy discussions and balancing that need to
17 occur at the agency level around these.

18 There is likely to be some level of
19 friction that is involved with trying to stop
20 that activity. Because there will probably be
21 some kind of trigger or challenge, which will
22 increase the costs -- the transaction cost of the

1 click farm for instance in some country you can
2 identify outside of the United States that's
3 generating these sufficient. But it can -- it
4 can mitigate the risk.

5 Preventing bulk uploads of comments
6 perhaps is another way of avoiding the large
7 misappropriation of identities. And then the
8 large submission from a human-based perspective
9 of comments that are hard to challenge with
10 machine learning tools. As is the IP address
11 detection and verification. If you're noticing
12 that a large number of comments are coming from
13 a single IP address, then you can take additional
14 mitigating steps to address those comments.

15 So I just wanted to lay out on the
16 table the hopeful thought that there are -- from
17 many different companies, many different vendors,
18 opportunities for government to partner with the
19 technology sector to come up with technology
20 solutions to fight back against this. That
21 reduced friction that preserve democratic
22 engagement with government, but really do try to

1 push the bad actors out of the process. Thanks
2 so much.

3 MR. SCHROEDER: And we are committed
4 to robust market research to explore all those
5 opportunities. Thank you very much.

6 So with that said, I'd say that we
7 have about 16 minutes for question and answer.
8 And we can go straight into it if you're ready,
9 Virginia.

10 MS. HUTH: I've got to move over here,
11 so I don't make feedback with that big speaker,
12 they told me. All right, so many good questions.
13 I'm trying to consolidate some. We'll try to see
14 if we can get through these quickly.

15 All right, I've got a question for
16 Reeve. So many of the people affected by
17 government regulations; basic people, workers,
18 consumers, tenant, they don't necessarily have
19 the resources to come in with a lot of the data
20 and the arguments. Don't their opinions,
21 considering this still count? Shouldn't they
22 still be on a level playing field even if they

1 don't have all the data? What are your thoughts?

2 MR. BULL: Sure. So it's an excellent
3 question. And I think probably the most profound
4 objection to the position that I've taken. So
5 you know, I would say first that certainly I
6 think that the public opinion is relevant. You
7 know, that's certainly one of the underlying
8 purposes of notice and comment. And of the
9 participatory rulemaking process more generally.

10
11 So my perspective is that there are --
12 if the agency wants to determine what the public
13 opinion is, I think there are much more
14 sophisticated ways of going about doing that than
15 tabulating the number of comments. I think when
16 you tabulate the comments, you tend to get that's
17 most strongly held and often outlier views on
18 both sides. In something like an opinion poll or
19 a listening session, would actually be a much
20 more effective way of determining public opinion.

21
22 And that's not to say though that

1 people would be foreclosed from submitting
2 comments. And indeed, you know, there are
3 instances where members of the public might have
4 situational knowledge that's of relevance. So
5 I'm thinking of an example. There's a rule that
6 I think DOT is currently seeking comment on
7 related to service animals and emotional support
8 animals on airplanes. A very controversial
9 topic. And you know, almost everybody flies with
10 some degree of frequency. And that's something
11 where if you had, you know, a bad experience on
12 the airplane involving something like this, your
13 knowledge would be directly relevant to the rule.

14 So there certainly are instances, I
15 think, where the barrier to entry is relatively
16 low. And where comments from members of the
17 public, I think can have direct relevance to what
18 the agency is doing. But if the comment merely
19 consists of I agree or I disagree, that's where
20 I think you'd get a much better sense of the true
21 public opinion by taking an approach other than
22 simply tabulating comments to determine that.

1 MS. HUTH: All right. While machine
2 learning has great potential to limit the bot-
3 driven comments, couldn't that also prevent
4 legitimate mass comments on the part of advocacy
5 organizations? Combining questions, could they
6 have their own EPI? Could they have their own
7 widget? What are your thoughts, anybody?

8 MR. FITZPATRICK: Virginia, can you
9 repeat that? I couldn't hear it.

10 MS. HUTH: So what I heard you say is
11 we could use machine learning and CAPTCHA tools
12 to sort of screen the mass comment campaigns.
13 But wouldn't that have some impact on legitimate
14 mass comment campaigns? You know, advocacy
15 organizations who are commenting with their
16 stakeholders approval.

17 MR. FITZPATRICK: Sure. So there's a
18 couple dimensions to that answer. First of all,
19 the technologies that I described are principally
20 directed at bot-driven submissions. Okay? So
21 they are not intended to, nor do I think they
22 would be used by -- and again the question of how

1 they're used is really going to be up to the
2 agency in how they decide to calibrate this and
3 use it and for what purpose. But it's not
4 intended to stop legitimate mass comments. Many
5 of which may be -- I'm assuming are going to be
6 submitted by legitimate interest groups; business
7 or public interests. Not by bots, not by
8 foreign-based click farms, but by actual
9 submissions into the record.

10 The question of false positives is a
11 real one and a very important one. That's why I
12 wanted to highlight it. This is the balance,
13 right, between -- it's the cost benefit balance
14 between screening out large numbers of fraudulent
15 comments that are in a sense tainting the system
16 at the risk of occasionally screening out a
17 legitimate comment versus simply allowing it to
18 happen. Now you could just do nothing in which
19 I posit that this is only going to get worse by
20 orders of magnitude. And may at some point
21 overwhelm the system.

22 Or you could do sort of non-technology

1 based solutions, which in my view are going to be
2 much more obtuse. Right? Real restrictions that
3 the agency has within their own tool kit to
4 really screen submissions and create some kinds
5 of checks. I think the key to technology
6 solutions is that they really are able to be
7 precise and calibrated. And that you can reduce
8 very substantially the friction for legitimate
9 users and the incidents of false positives.

10 So I did end with one additional
11 thought. An agency, first of all, can iterate
12 into this. And there will be learnings along the
13 way. You can pilot it. You can try it out and
14 move into it. Second, you can be much more
15 cautious about setting the filter level, right,
16 the risk level. The agency has great control
17 over that. Ten different levels of risk
18 filtering.

19 But also maybe you don't entirely
20 prevent even submissions that are flagged as
21 almost 100 percent bot-driven. Maybe you
22 segregate the flagged into a separate pool that

1 you then do much further investigation on, okay,
2 as opposed to just stopping them from being
3 submitted. So I think there are ways to address
4 this legitimate concern.

5 MS. HUTH: Thanks. So we know that
6 stealing someone's identity to file a fake
7 comment is against the law. What do you think
8 the government should do about that?

9 MR. BALLA: This is best answered by
10 an administrative lawyer, I would say, not a
11 social scientist. But I'll just -- I'll just
12 wildly speculate on this. In that I think
13 there's two perspectives that we can look at this
14 from. And I think Reeve you --

15 MR. BULL: You'd be a good lawyer.

16 MR. BALLA: Administrative lawyer in
17 training. And I think this is relevant to what
18 Reeve earlier said in that you can think of fake
19 comments from an agency perspective versus the
20 perspective of the submitter. And from an agency
21 perspective, you might not be all that concerned
22 about the identity of the commenter itself.

1 Many agencies, as has already been
2 mentioned, accept anonymous comments. And so
3 from that perspective, you might not be that
4 concerned. But from the perspective of the
5 person who's identity has been stolen, that's a
6 completely different story. There can be a lot of
7 emotional -- you know, emotional discord
8 associated with that. People finding out that
9 dead relatives have submitted a comment on Net
10 Neutrality. This has happened. And so from that
11 point of view, it's certainly problematic.

12 And so I think what we need is that
13 360 degree view of where in this process, you
14 know, from the user to the receiver, where it
15 might be problematic. And where it might not be
16 as immediately threatening. And that's where we
17 need to emphasize -- you know, put our -- you
18 know, put the emphasis on legal thinking as I
19 think more on the user side than the agency side.
20 Although Mike might have different thoughts about
21 this.

22 (Off-mic comment.)

1 MR. BALLA: Or Reeve.

2 MR. BULL: Wonderful. So no, that's
3 actually an excellent, I think, legal analysis of
4 the problem. I don't really have too much to
5 add. I think Steve pegs it exactly. I mean I
6 think -- you know, the problem is there's some
7 real countervailing considerations here. On the
8 one hand, you know, as Steve points out, it's
9 perfectly legitimate. And agencies have always
10 permitted people to file anonymous comments or
11 even to file pseudonymous comments. You can say
12 George Washington or Mickey Mouse or whatever,
13 you know, as the name when you're submitting a
14 comment.

15 And in addition, there's certainly
16 some concern about chilling participation in the
17 process. If it's too aggressive, the agency says
18 if you will file a comment and if there's
19 anything inaccurate in that comment, then you
20 would be subject to criminal prosecution. That
21 might deter people from participating in the
22 process.

1 So I think, you know, those are really
2 the considerations on one side. But I think
3 Steve also well articulates the considerations on
4 the other side. If you're having your identity
5 stolen, that's a real problem. And that's where
6 I think it really has to come down to the nature
7 of the comment campaign. And probably ultimately
8 prosecutorial discretion of the part of DOJ as to
9 what's worth prosecuting and what isn't.

10 And I think if it's a really, you
11 know, significant effort to thwart the overall
12 process and to file, you know, thousands or
13 millions of fake comments and you're
14 systematically misappropriating people's
15 identities, then yes I think prosecution may be
16 appropriate in that case. But if it's a more
17 minor instance then, you know, perhaps not. I
18 think it really sort of depends on the nature of
19 the campaign itself.

20 MS. HUTH: All right. Is it the job
21 of government agencies to define for citizens
22 what a good comment is? What is a good comment?

1 And what do you think a good comment is?

2 MR. FITZPATRICK: I think a good
3 comment is a factual comment that the agency
4 finds compelling even if it disagrees with them
5 is my view. I mean I think unfortunately
6 agencies are left with the job of defining what
7 a good comment is and they'll be checked in the
8 courts, but that's okay. They do the job really
9 well and they see a lot of comments.

10 I think the theme that you have heard
11 through all of this is we should -- the system is
12 set up for agencies to consider factually
13 accurate, substantive comments, even if they're
14 in short form. Okay? And to weigh the facts and
15 the arguments and the questions raised in those
16 comments in deriving the best policy for the
17 American people. It is not a popularity contest.
18 There are too many ways through technology means
19 or just the serendipity of whatever group happens
20 to be mobilized or activated, right, that can
21 skew the numbers wildly in one direction or
22 another. And this applies to all sides of the

1 political spectrum.

2 So you know, good is an ambiguous
3 term. But I'll stick with my definition. If
4 it's substantive, even if it's disagreeable to
5 the agency and it's worthy of consideration, it's
6 factual and accurate, that's a good comment.

7 MR. BALLA: Just to add, I have an
8 idealistic reaction to that question. And then
9 a sort of more grounded in reality view, I think.
10 Idealistically, I'd love to see the regulation
11 version of School House Rock on just a bill. I
12 mean we do a great job in civics education of
13 understanding that part of the policy making
14 process. Which happens to be -- no offense to
15 anybody who works on the Hill -- which happens to
16 be largely be broken in my estimation right now.
17 And most of the interesting policy making action
18 in this town is in the regulation sphere. And
19 yet from a civics point of view, almost no
20 American understands that.

21 And so idealistically I'd love to
22 think that if we build it, they will come. That

1 if we just make that School House Rock video, the
2 scales will fall from their eyes and they will
3 get it. More realistically, I teach on
4 regulation at George Washington University where
5 my students are interning on the Hill. I mean
6 they're super smart, super motivated, working in
7 offices on K Street and the White House. None of
8 them have ever heard of the Administrative
9 Procedure Act when they walk into my class as a
10 Senior Political Science Major.

11 And so realistically, you know,
12 there's a tips for submitting effective comments
13 on the Regulations.gov website right now, which
14 I think is quite good, that no one will ever
15 read. And so I just think there's a fundamental
16 disconnect that it's not a supply problem, it's
17 a demand problem.

18 MS. HUTH: Thank you. I actually
19 agree on the School House Rock. That was -- You
20 were smiling because I've been talking about it.
21 Maybe we can team up on that. We know how a bill
22 becomes a law, but we don't know how a law

1 becomes a regulation.

2 So back to the APA, your favorite
3 administrative law and mine. It does require us
4 to consider, you know, written data, views,
5 arguments, you know, the substantive stuff. So
6 let's ask though -- we also know in the preamble
7 to a regulation, agencies are required to do sort
8 of a summary. So what are agencies legal
9 requirements when they are providing that
10 summary? Should they be measuring accurately the
11 aggregate comment or feedback, you know, the
12 percentages or acknowledging it in some way? I
13 mean is it -- we have been hearing different
14 views. It is relevant. Is it not? What are
15 your thoughts on those requirements in the
16 summary?

17 MR. BULL: Yeah, so my understanding
18 of the underlying law is that, basically what the
19 APA says that the agency has to consider the
20 relevant matter presented. And the definition of
21 relevant matter presented will depend on the case
22 law. And the case law is very clear that any

1 data that's provided, that the agency fails to
2 take into account, that's a grounds for
3 challenging the rule on judicial review.

4 I am not aware of any case -- correct
5 me if I'm wrong -- but where an agency has ever
6 been challenged for not providing a tabulation of
7 the opinions expressed in the comments, either in
8 percentage form or in an overall number form.
9 Not many agencies do. You know, they'll actually
10 provide as part of the preamble, a statement that
11 we got X number of comments, particularly with
12 these mass comment campaigns. Oftentimes the
13 agency will note the number of comments received
14 and the opinions expressed in those comments.
15 But I don't believe a court would ever strike
16 down an agency's rule for failing to adequately
17 grapple with the opinions expressed in comments.
18 It's really just the underlying data that the
19 agency's legally obligated to consider.

20 MR. BALLA: I would add to that. I
21 just want to emphasize that the administrative
22 rulemaking is just that immediately. It's a

1 legal administrative process, right, grounded in
2 statute, judicial review, all of that. But of
3 course it also occurs within the context of the
4 American political system. So again, not as an
5 administrative lawyer, should the number of
6 comments matter in the narrow sense of the legal
7 administrative process. I don't see a good
8 immediate argument for that. But that can still
9 be a powerful tool in the larger political debate
10 that occurs around rulemaking.

11 So again, Waters of the United States,
12 EPA Administrator McCarthy on Capitol Hill
13 testified that we received a million comments and
14 87.1 percent were in favor of our rule, which was
15 then shortly thereafter finalized. Right? And
16 so that group of one million comments -- you
17 know, it was a mass comment campaign, didn't
18 carry any legal standing, but it was certainly
19 useful in that political moment.

20 MS. HUTH: Thanks. I'm going to
21 answer this question. Is the U.S. Digital
22 Service going to play a role in our solutions?

1 We have met with U.S. Digital Service and we're
2 exploring working together.

3 MR. SCHROEDER: Virginia, we're on
4 maybe our last question.

5 MS. HUTH: All right. Final question
6 is when we look at the means of using the
7 sensitivity analysis, you know, predictive
8 services in terms of is it a fake comment or bot?
9 We give deference to the agencies on what that
10 level is. But isn't there a risk that there
11 still will be some sort of false positive in the
12 end? And how do we feel about that? I mean is
13 it ever possible to perfectly and completely
14 accurately attribute a fake comment as being fake
15 or should we allow some risk?

16 MR. FITZPATRICK: I don't think we
17 ever do anything with 100 percent certainty. So
18 maybe we'll achieve metaphysical perfection on
19 that at some point in the future, but I doubt it.
20 But look, life isn't -- that's not life. Right?
21 Life is a series of choices that one makes and
22 balances that one draws. And you do the best you

1 can to achieve the greater public good.

2 And so I think it's clear that the
3 concept of false positives is resonant and it
4 should be because that in a sense is the biggest
5 risk point of actually trying to address the risk
6 point of fake comments. Right? It's that you're
7 going to exclude some who may legitimately want
8 to comment.

9 My sense is -- look, folks who use
10 these tools in the private sector -- and by the
11 way in the public sector -- but certainly in the
12 private sector, share those same interests.
13 Right? Nobody wants to turn away a legitimate
14 customer who's going to buy something on your
15 website. No one's going to want to turn away a
16 legitimate customer who's going to click on ads
17 on your website. And yet they are used because
18 the greater good of stopping an immense amount of
19 damaging behavior vastly outweighs that.

20 And over time, the ability to reduce
21 to -- I anticipate to a very, very, very small
22 level, the incidents of false positives is going

1 to be there. Because I think it already is. I
2 think the value of these tools is already evident
3 to people who choose to apply them to their own
4 important sites.

5 I'm confident of that, but I'm trying
6 not to be glib about this at all. That's why I
7 confided in my own opening remarks. That's to
8 me, the key challenge for the agency is to set
9 the filtering and to do something with the
10 flagged comments that can address the false
11 positive question to the greatest extent possible
12 or at least minimize the impact of that if
13 possible. So thanks for the questions.

14 MS. HUTH: So I think that does
15 conclude our second panel. Thank you, gentleman
16 very much. I'll just make a couple closing
17 remarks and work my way up.

18 I'll turn the other one off. So thank
19 you again for coming today. This is just the
20 beginning of a very important conversation on the
21 subject of the mass and the fake comments, along
22 with a broader conversation about how we can

1 improve the electronic rulemaking system as a
2 whole. Our goal is to really improve the
3 services to our federal agencies, to the public,
4 to all of our stakeholders.

5 I encourage you to check out the
6 docket that we've set up on the topic of
7 modernization of electronic rulemaking. We've
8 got a lot of materials there. We invite you to
9 send more materials or provide comments. And
10 that's open through April 30th. Again as Tobias
11 hinted, we have sort of a long-term timeframe of
12 working on this. And we want to do it right.

13 Put March 25th on your calendars.
14 That's our next public meeting. And it's going
15 to be on sharing data on regulatory stuff;
16 conducting data analysis, integrating systems
17 across government, and all kinds of related
18 issues. So I hope to see you then. We're still
19 looking for some panelists. So let us know.
20 We'll be putting that slate together pretty soon.

21 If you are interested in learning
22 more, again go to Regulations.gov. I want to say

1 a big thank you to our panelists here. And I
2 don't know if we applauded the earlier panel. So
3 thank you very much to both panels. We really,
4 really appreciate your resources. I have to of
5 course thank Jessica, my boss, who made this
6 happen for us. And Dominic Mancini had to leave,
7 but he was a big supporter as well. And
8 especially thank you to you who came here in-
9 person and to all of our virtual attendees to be
10 a part of this very important dialogue. So
11 thanks again for coming. And I hope to see you
12 soon.

13 (Whereupon, the above-entitled matter
14 went off the record at 3:57 p.m.)
15
16
17
18
19
20
21
22

A			
<p>ability 18:19 44:13 46:22 112:20 able 27:4 34:22 62:13 67:10 68:6,6 72:18 86:21 87:3 100:6 above-entitled 115:13 absolutely 21:1 absorb 31:12 abuse 73:21 74:14 abusive 21:13 accept 40:19 55:12 102:2 accepting 11:22 access 10:12 56:9 accessible 66:19 73:15 accommodating 24:21 accompanied 77:11 accomplish 76:1 account 77:18 78:3,7,8 78:20 83:18 84:4,21 109:2 accountability 10:13 accountable 4:19 accuracy 93:11 accurate 105:13 106:6 accurately 108:10 111:14 achieve 20:2 111:18 112:1 achieved 30:19 acknowledging 108:12 Acquisition 7:22 act 4:14 14:6 25:1 27:11 54:16,20 61:20 107:9 acting 6:1,2 action 106:17 actions 15:17 68:20 88:17 activated 105:20 active 65:18 66:12 69:2 69:9,17 activity 27:14 69:20 89:19,22 92:21 93:20 actors 91:5,13 95:1 actual 90:4 99:8 ACUS 64:20 ADA 77:19 adapted 74:11 add 19:14 42:16 50:13 52:19 91:5 92:21 103:5 106:7 109:20 addition 7:13 35:1 62:8 103:15 additional 78:17,17 94:13 100:10 address 17:4 22:20 23:17 50:7 51:5 62:14</p>	<p>80:15 94:10,13,14 101:3 112:5 113:10 addressing 10:3 72:16 adds 53:8 91:1 adequately 109:16 Administration 1:1,10 1:14,15,19 2:2 4:10 5:18 13:3 14:3 29:10 29:16 64:7,18,20,22 administrative 2:6 4:13 27:11 63:7,15,18 64:1 82:16 101:10,16 107:8 108:3 109:21 110:1,5,7 Administrator 1:14,16 1:17 4:8 5:12,13 6:1,2 7:12 9:4 64:17,19 110:12 admit 38:18 admittedly 80:17 adopting 78:13 ads 112:16 advance 87:20 advanced 17:22 Advisor 64:19 Advisory 82:21 advocacy 13:2,7,15 14:3 29:9,15,19 30:8 33:11 36:14 38:15 64:16 68:18 69:16 98:4,14 Advocacy's 30:8 advocate 41:2 advocates 13:6 68:16 advocating 40:22 affairs 1:16 5:6,14 31:11 63:13 64:7,15 affect 84:18 afternoon 4:3 8:6 agencies 5:4 6:18 10:3 14:7 15:18,19 23:12 24:18 28:19 33:2 40:16 41:19 42:19 43:7 46:19 48:2 49:7 50:9 54:14 55:4,6,11 56:5 61:19 63:18 66:6 66:16 71:13 74:5 75:11 79:3 82:9 85:13 87:3 88:5 89:20 91:3 102:1 103:9 104:21 105:6,12 108:7,8 109:9 111:9 114:3 agency 3:15 10:7 12:12 15:17 17:22 18:15,16 19:19 20:20 21:14 22:9 34:5 38:13 44:11 45:11,21 47:3 51:20 55:8,8 57:1 59:21</p>	<p>60:9 63:19 65:6 66:12 66:15 67:6,10,13,18 72:11,15,18 73:13 75:1 76:1,7,18,22 77:12,17,19,22 78:2,6 78:7,10,11,16 79:5 80:7 81:1,5 82:14,18 83:17 84:3,20 86:13 86:21 92:12 93:4,17 96:12 97:18 99:2 100:3,11,16 101:19 101:20 102:19 103:17 105:3 106:5 108:19 109:1,5,13 113:8 agency's 7:22 17:15 66:12 72:10 77:3 89:14 109:16,19 agenda 10:15 aggregate 18:17 108:11 aggressive 103:17 ago 74:5 79:14 agree 32:12 97:19 107:19 agriculture 69:6 70:14 ahead 8:11 10:1 12:20 48:9,11 AI 83:22 airplane 97:12 airplanes 97:8 alarming 14:19 align 53:7 allow 92:15 111:15 allowing 51:2 99:17 allows 50:14 alternative 17:16 28:10 35:21 47:21 alternatives 40:17 ambiguous 106:2 amenable 45:16 amend 21:8 amending 12:12 Amendment 17:10 American 4:18 63:22 64:1,21 105:17 106:20 110:4 amount 55:10 112:18 analysis 13:20 40:20 41:8,17 42:3,4 43:15 43:20,21 48:22 50:7 61:5 62:18 63:19 67:4 70:22 103:3 111:7 114:16 analytics 10:11 14:9 27:7,19 analyze 54:4 angst 22:12 animals 97:7,8 announce 12:21</p>	<p>anonymity 51:2 anonymization 53:13 anonymous 35:7 50:15 51:6 53:19 68:9 102:2 103:10 anonymously 55:12 90:7 answer 11:21 40:12 42:2 43:12 46:15 48:19 61:3 83:14 95:7 98:18 110:21 answered 101:9 answering 23:6 Answers 3:8 anticipate 112:21 anybody 17:18 18:20 44:4 68:11 98:7 106:15 APA 33:9 76:1 77:15 108:2,19 API 37:17 50:19 apologize 46:16 49:18 50:22 63:9 appear 65:16 applauded 115:2 applied 41:5 applies 105:22 apply 113:3 appreciate 8:8 115:4 approach 26:7 97:21 approaches 10:12 appropriate 45:18 72:20 92:13 104:16 appropriately 63:10 approval 98:16 approve 35:11 April 11:19 114:10 arbitrary 78:16 architecture 8:2 area 12:22 13:17 25:16 27:17 40:5 80:14 85:11 areas 8:18 36:4 50:11 arena 84:15,15 argument 71:10,21 110:8 argumentation 73:11 arguments 17:22 25:9 57:20 95:20 105:15 108:5 arising 85:10 arms 26:19 28:1 arrive 54:4 articulates 104:3 ascertaining 82:15 aside 78:2 asked 89:3 asking 46:4,11 51:14</p>

aspect 11:16 80:10,11
aspects 12:1 50:11
assertion 26:10
assertions 25:2
assess 40:16
assign 53:7
assists 13:19
Associate 1:14,17 4:8
 7:12 9:4 63:8 64:5,17
associated 25:1 85:4
 102:8
association 2:3 12:19
 13:6 24:17 45:7 64:1
 64:22
Associations 36:13
assuming 35:17 99:5
assumptions 34:4
 38:11,12 43:1
assurance 75:7
attachment 67:19
attack 28:16
attend 11:15
attendance 10:22
attendees 115:9
attention 38:11 86:14
attributable 68:10
attribute 111:14
attributed 24:6
attribution 49:22 50:12
 53:2,11 56:6 58:3
audience 4:5 12:15
 18:7 19:1 40:3 48:8
 48:12
audiences 18:8,12
Auditorium 1:10
authenticate 50:18 51:8
 51:14 56:3
authentication 55:20
 92:18
authentications 55:3
automated 27:16
automates 38:15
availability 46:10
available 11:14 40:17
 49:5,7 88:5,10,13,16
average 44:2
avoid 10:21 14:7
avoiding 94:6
aware 26:13 109:4

B

back 6:15 32:17 33:18
 38:14 41:20 42:22
 72:16 73:1,19 85:19
 87:19 89:15 90:10,20
 94:20 108:2
bad 88:17 91:5 95:1
 97:11

bag 85:19
balance 39:1 91:2
 99:12,13
balances 111:22
balancing 93:16
Balla 2:5 3:16 63:8 64:5
 65:1,3 101:9,16 103:1
 106:7 109:20
Balla's 74:16
bar 28:4 64:1
barrier 52:13 97:15
based 24:22 25:6 100:1
basic 26:9 95:17
basically 26:17 46:9
 57:19 58:5 76:16
 108:18
basis 14:22
began 5:17
beginning 113:20
begins 45:4
behalf 9:15
behavior 112:19
believe 109:15
benefit 43:11,20,21
 47:17 63:19 99:13
benefits 24:12 40:16,21
 41:6,9
best 9:10 16:8 38:19
 41:5,11 42:6 47:2
 59:16 64:13 66:15
 76:7 101:9 105:16
 111:22
better 8:15 10:10 22:10
 33:2 38:10 42:8 43:6
 43:15 51:21 60:7,8
 82:14 97:20
beyond 28:9
bidding 65:12
big 3:8 21:21 23:8,13
 91:9 95:11 115:1,7
bigger 25:20
biggest 112:4
bill 106:11 107:21
bio 64:12
bit 6:15 15:1 17:5 22:10
 32:8 35:2,5 40:10
 46:1 57:6 60:11 67:4
 69:20 75:8 79:22 88:4
bits 59:20
blood 15:1
blue 85:21
borrow 88:1
boss 15:4 86:10 115:5
bot 57:14,17 83:22
 92:21 111:8
bot- 98:2
bot-driven 89:18 90:9
 92:8,10 98:20 100:21

bots 26:15 28:6,15
 90:20 99:7
bottle 27:2
bottom 35:22 69:4
 73:19 83:20
boundaries 53:13
box 28:9
boys 91:9
brain 90:17
Branch 13:8
breadth 33:1
breakdown 69:14
breathing 45:2
bridges 90:15
bring 4:20 5:2 10:9 40:1
 57:5 85:18
bringing 9:15 40:3 50:8
broad 68:14 76:18 77:4
broader 65:9 79:4
 113:22
broadly 68:20
broken 106:16
budget 1:17 62:17
build 106:22
built 37:15
bulk 94:5
Bull 2:6 3:18 63:6,14
 75:12,13 80:21 96:2
 101:15 103:2 108:17
bunch 65:4
burdens 14:8
burdensome 39:17
business 2:2 13:2 14:3
 14:4 29:10,16 32:1,9
 32:14 33:3,5,21 35:13
 38:17 39:6,7 42:18
 60:2 99:6
businesses 14:8 30:1
 30:20,22 31:3,4,7,12
 31:19,21 36:16 39:19
 41:1 45:8 91:13
busses 90:15
buy 42:14 112:14

C

C-O-N-T-E-N-T-S 3:1
calendars 114:13
calibrate 99:2
calibrated 100:7
call 33:13 71:4 72:3
 90:3 91:1 92:19
called 26:15
calling 69:21
campaign 3:7 25:19
 47:6,9 66:21 67:2,3,5
 67:9,16,19 68:3 70:7
 70:8,10,15,17 71:2,5
 72:6 74:19 75:8 80:22

82:3 84:19 104:7,19
 110:17
campaigning 69:9,18
campaigns 3:15 15:10
 16:6,16,22 48:2 65:6
 65:13 66:2,5,7,17
 68:9 70:5 71:13 72:2
 72:19 73:4,14,21 74:3
 74:8 75:3 76:6 82:11
 98:12,14 109:12
capabilities 10:9
capacity 31:12
Capitol 110:12
capricious 78:16
CAPTCHA 28:3 98:11
care 17:19 23:10 56:15
career 5:17,20 30:7
careful 21:7
Carolina 5:16
carry 110:18
case 24:12 26:10 45:6
 48:1 52:9 53:18 57:17
 63:11 67:15 69:5
 76:13 104:16 108:21
 108:22 109:4
cases 45:18 55:14
 81:15
cataloguing 73:14
catch 26:7 47:11
categories 76:19
category 77:4 93:3
cautious 35:17 54:6
 100:15
celebrities 24:2
center 2:6 4:12 9:14
 13:18 14:11 33:5 64:9
 71:6
centers 49:21
certain 25:21 32:5
 53:10 79:15 92:16
certainly 21:14 37:16
 53:1 69:3,15 71:5
 81:5,6 84:6,13,20
 96:5,7 97:14 102:11
 103:15 110:18 112:11
certainty 92:9,10
 111:17
cetera 91:14
Chair 64:3
Chairs 5:10
challenge 92:15,17
 93:21 94:9 113:8
challenged 78:1 89:22
 109:6
challenges 4:22 8:15
 8:21 10:4
challenging 109:3
chance 32:14 54:3

change 22:16 74:17
changed 74:10
changes 26:11 52:5
channels 4:6
Chapel 5:16
charging 27:14
chat 11:11
check 89:10 114:5
checked 105:7
checking 35:19
checks 100:5
Chief 7:22 29:15
chilling 103:16
China 64:11
choice 52:20
choices 20:20 111:21
choose 33:5 52:21
 55:11,13 113:3
chooses 75:3
chosen 47:20
citizen 57:18
citizens 24:1 82:22
 104:21
civics 106:12,19
clarification 74:16
clarifying 29:13
class 16:8 107:9
classes 68:14
clean 70:9
clear 15:15 24:15 36:2
 38:19 57:20 77:16
 78:5,5,19 81:13
 108:22 112:2
clearly 16:10
click 92:3,4 94:1 99:8
 112:16
clicking 90:14
Clinton 64:19
close 26:6 33:20
closer 57:6
closing 3:22 113:16
co- 5:9 75:17
Co-Chair 8:9 9:18
co-chaired 5:5
co-panelist 22:22
colleague 29:4
colleagues 6:7 7:2,3
 65:4
collect 11:8
collections 65:14 92:1
collective 9:10
college 27:3
combination 7:6
Combining 98:5
come 7:10 11:8 12:20
 18:10 20:12,21 43:10
 46:14,18 63:3 66:8
 73:1 94:19 95:19

 104:6 106:22
comes 66:21 67:6
 74:21 79:18
coming 4:4 30:7 39:22
 57:13 94:12 113:19
 115:11
commentary 80:13
commenter 77:21
 101:22
commenters 38:3 39:8
 52:2,10 70:19 80:8
 89:3
commenting 17:7
 18:14 24:3 98:15
Comments/Technolo...
 3:19
Commission 52:1
committed 10:1 95:3
Committee 8:10 64:4
 82:21
common 21:3 30:16
 33:13 41:3,11 46:13
 87:9
commonsense 13:9
 48:4
communicated 22:5
community 8:20 15:2
 16:5 53:10
companies 13:7 88:14
 94:17
company 13:13
company's 13:14
compared 52:10
compelling 105:4
competitors 88:12
completed 11:6
completely 21:9 28:21
 30:18 102:6 111:13
completing 9:21
completion 12:16
complex 44:7 89:8
component 50:12
concede 87:19
concept 112:3
concern 32:5,9 45:6
 59:7 89:20 101:4
 103:16
concerned 86:7,10
 88:19 101:21 102:4
concerns 12:10 32:1
 33:3 39:7
conclude 113:15
conducting 114:16
Conference 2:6 63:7,15
 82:16
confident 113:7
confident 113:5
Congress 13:8 19:18

 20:4
connections 11:10
cons 51:13
consent 24:7
consider 15:14 21:19
 25:7 77:12,20 78:9
 81:6,7 105:12 108:4
 108:19 109:19
consideration 41:6
 106:5
considerations 103:7
 104:2,3
considered 80:5
considering 7:7 95:21
consistent 79:7
consists 97:19
consolidate 54:21
 95:13
constant 34:18
constituency 21:5
constituents 20:9
constituted 74:13
constitutionally 21:10
construction 8:3
consultation 64:10
consumer 20:10
consumers 95:18
contain 67:8
contained 81:8
contains 84:2
content 38:7 39:16 66:5
 68:1 73:17 89:9
contest 105:17
context 15:9 57:16
 73:12 110:3
continue 37:18 93:5
continued 37:16
continuity 61:22 62:9
contractor 63:20
control 100:16
controversial 97:8
convene 82:20
conversation 20:17
 113:20,22
conversely 78:7
convert 32:21
convey 56:13
convince 32:21
cooperation 63:17
copied 53:12
copyright 85:9
core 18:12 34:15
corporate 86:10
correct 24:8 109:4
correcting 35:19
cost 24:4,16,17 25:12
 28:18 34:11,19 42:14
 42:15 43:11 47:17

 61:15 63:19 93:22
 99:13
costly 39:12 60:22
costs 23:15 31:13,14
 38:12 40:16,21 41:6
 41:10 93:22
Council 67:12
counsel 13:12 29:15
 63:22
count 59:5,11 95:21
countervailing 103:7
countries 16:10 24:20
country 94:1
couple 7:10 16:17 24:3
 40:14 48:14 66:10
 98:18 113:16
course 76:19 79:12
 110:3 115:5
court 78:14 109:15
courts 105:8
coverage 48:21
cracks 21:8
create 31:4 100:4
created 9:16 16:6 26:15
 67:21,22
creates 67:6 82:8,10
creating 28:1 76:2
credit 79:5
crime 85:6
criminal 103:20
criteria 61:16 62:12
critical 10:3 44:16 46:4
criticize 35:13
cross 43:20
crowd 14:21
crunch 44:14
cued 64:13
current 55:9
currently 50:14 74:13
 97:6
customer 112:14,16

D

D.C 1:10 31:11
damaging 87:21 112:19
data 10:10 35:20 41:21
 42:1 70:22 71:11
 73:11 76:21 77:8,12
 77:17,21 78:2,17 92:2
 92:2,2 95:19 96:1
 108:4 109:1,18
 114:15,16
day 33:22 67:5 93:7
dead 102:9
deal 3:8 23:8,13 47:19
 72:18 86:22 88:18
 89:8
dealing 16:8 17:2 20:15

dealt 93:3
Dear 45:5
debate 19:14 110:9
decade 74:4
deceased 24:13
deceptive 89:13
decide 99:2
decision 27:14 50:9
 60:8 61:17 74:7 77:3
 78:18 87:1 93:4
decisions 4:19 43:6
 62:10
decreasing 87:7
dedicated 23:3
deep 26:16 57:18 90:16
 90:16
Defense 67:12
deference 111:9
define 104:21
defined 31:3
defining 105:6
definitely 86:8
definition 47:9 49:16,19
 106:3 108:20
degree 97:10 102:13
delay 42:17
delighted 5:9
deliver 61:4,7,15
delivering 45:10
demand 107:17
democracy 25:11
democratic 4:16 80:11
 86:17,19 91:6 94:21
democratized 74:3
demographically 82:22
departments 15:19
depend 108:21
depends 55:8 59:13
 104:18
depose 70:3
depth 33:1
Deputy 1:14,16 4:8 5:11
 5:13 6:1
deriving 105:16
described 22:9 98:19
desire 56:9
detailed 34:1 43:19
 70:17,18
detect 25:15
detection 32:4 94:11
deter 103:21
determine 96:12 97:22
determining 96:20
deters 91:6
develop 19:19
developed 9:8
developing 12:12 61:8
development 7:18

13:18 37:17
dialogue 115:10
differences 68:12
different 7:4 15:5 21:6
 25:14 55:21 59:17,18
 59:21 70:19 71:14
 79:22 80:7 94:17,17
 100:17 102:6,20
 108:13
differently 79:2
difficult 34:9,16 35:12
 36:22 93:14
difficulty 39:5
digit 87:16
Digital 110:21 111:1
dimension 19:15
dimensions 98:18
direct 31:8 97:17
directed 12:11 28:13
 41:15 98:20
direction 79:19 80:4
 81:4,17 105:21
directional 71:9 72:7
 73:9
directly 15:4 37:12,16
 43:3 97:13
Director 1:11,13 10:18
 63:7,14
disagree 97:19
disagreeable 106:4
disagrees 105:4
disambiguate 58:2
discarding 39:15
disconnect 107:16
discord 102:7
discount 32:8
discourse 25:12
discoverability 36:12
discovery 49:4 61:10
discretion 104:8
discuss 4:21 37:20
discussed 33:8
discussing 65:11
discussion 3:17,19
 8:15 30:4 35:2 40:1
 89:4
discussions 88:21 89:7
 93:16
disenfranchised 59:7
dismissing 35:18
disrupt 58:7
distinct 29:21 76:11
distinction 57:12 78:21
distinguished 75:17
divide 18:12
divided 68:14
docket 11:18 19:5 37:1
 37:2 65:16 67:15 72:9

73:1 114:6
dockets 54:17 66:8
document 37:2 41:18
documents 36:18,18
 71:16,18
doing 22:6 30:16 38:20
 41:8 46:2 51:3 53:10
 66:3 93:7 96:14 97:18
DOJ 104:8
Dom 16:13
Dominic 1:16 3:3 5:10
 6:3 9:18 10:16 40:2
 49:18 115:6
dot 63:1 97:6
doubt 93:14 111:19
downstream 23:11
 28:19
Dr 12:21 13:16 63:8
 64:5 65:1 74:16
draw 48:3 85:22 92:6
drawing 38:11
draws 111:22
dreaded 92:19
driven 27:15,15 61:5
 92:11 93:13 98:3
drives 54:9
driving 89:19
drown 39:6
Drug 5:17
duplicate 32:4 65:15
 67:14
duplication 75:2
Dustin 88:1

E

earlier 35:4 37:3 101:18
 115:2
early 28:5 36:19 82:17
easier 36:16 58:21
easiest 62:12
easily 66:18 89:22
easy 53:18 60:13
economic 14:10 17:14
 23:15 25:8 41:17 42:3
economist 5:15 13:1
 14:2 29:9 40:19 41:16
economy 31:1,6 33:14
 42:13
educate 33:12
education 106:12
effect 32:6 42:17
effective 33:11 34:10
 34:17 37:5,8 38:3
 89:15 90:19 96:20
 107:12
effectively 30:18
effectiveness 12:9
effects 25:14

efficiency 10:13 12:8
 25:6
effort 24:7 25:3,20
 54:20 82:2 104:11
eGovernment 54:16,20
eight 9:7
either 46:16 76:22 83:6
 90:6 109:7
elected 63:21
electronic 8:17 12:2
 54:15,16,17 114:1,7
elicit 11:20
Elvis 24:2
emerge 38:5
emerged 9:11
emotional 97:7 102:7,7
emphasis 102:18
emphasize 36:11 49:6
 50:6 61:6 70:16 71:3
 74:18 86:8 102:17
 109:21
emphasizing 32:15
empirical 73:20
empirically 53:20 54:2
employed 31:3
employment 13:10
empowered 20:20
enabled 37:11
enactment 14:5
encourage 17:18 35:11
 38:10 60:6 114:5
encouraging 21:1
Energy 69:6
engage 12:15 21:11
 22:16 44:4 58:19 82:2
engaged 22:3 89:12
engagement 16:21 21:4
 57:5 94:22
engaging 22:8 52:14
engineering 8:3
engineers 90:13
enhance 33:1
enjoyed 39:22
ensuring 4:16
enterprise 91:18
entire 15:17 26:21
 87:10
entirely 55:21 100:19
entirety 70:7,8
entities 31:14 69:22
entity 69:5 84:8
entry 97:15
environmental 68:18
 70:11
envision 10:10 45:19
EPA 9:20 66:10,10,21
 67:1 68:6 69:5,10
 71:16 72:5 73:13

79:14 110:12
EPA's 66:22
EPI 98:6
equation 47:17
equipment 42:15
erect 42:12
error 35:20
eRulemaking 1:13 4:10
5:2 8:9 9:12 10:19
30:5 34:21 36:2,11,15
37:21 39:10 42:11
63:20
esoteric 80:18
especially 27:10 30:1
31:13 34:2,3 38:11
115:8
essential 31:16
essentially 38:21 53:4
87:10
establish 56:2
established 49:20
esteemed 12:14
estimation 106:16
et 91:13
ethics 63:20
evaluate 43:18
event 23:8
events 25:18
everybody 17:5 19:5,8
91:21 97:9
evidence 24:22 71:10
71:22 72:15,17
evidence- 25:5
evidence-based 25:5
evident 113:2
evolve 16:3,20
evolving 22:14
exact 37:1,2 77:18
exactly 17:3 28:22 46:9
60:14 103:5
example 21:20 37:7,8
51:17 57:16 66:20
78:9 97:5
examples 52:3 70:5
excellent 48:18 75:15
96:2 103:3
excessive 14:8
excited 4:20 5:2 8:10
10:8 30:3
exclude 112:7
executive 8:9 13:8
15:18 40:15
exercise 17:10 46:7,22
exercised 73:5
exert 71:19
exist 71:2
existing 9:13 62:1,5
exists 42:7

expanded 13:21
expect 36:22 68:22
experience 15:20 97:11
experienced 37:1
experiment 37:18 38:2
experimental 27:1
experimentation 39:2
expertise 40:1 44:8
84:8
explanation 3:10,15
35:6
explicit 23:14
explore 95:4
explores 13:20
exploring 88:7 111:2
expose 11:21
exposure 15:20
express 6:22 77:7 83:5
expressed 109:7,14,17
expressing 76:21 77:5
expression 47:15 73:22
extensive 77:6
extent 32:5 42:11 43:2
113:11
extraordinary 89:5
extreme 70:4,13 78:9
extremely 43:13
eyes 107:2

F

F 1:10
face 66:22
Facebook 26:4
facets 36:10
fact 56:22 58:21 59:3
60:16 69:21 76:21
77:16 78:19 92:18
fact/opinion 78:21
factor 47:7
factors 43:22 58:6
facts 81:7 105:14
factual 83:12,16 84:15
105:3 106:6
factually 105:12
failed 78:2
failing 109:16
fails 109:1
fair 78:14
fairly 26:2
faith 87:2
fake 1:3 2:1,5 3:19 4:22
8:22 10:4 11:22 25:5
26:16 35:8 48:17
49:16 50:7,15 56:14
56:15 61:1 62:11 63:5
86:11,16,22 90:2,5,7
93:13 101:6,18
104:13 111:8,14,14

112:6 113:21
fakes 57:18
fall 76:18 107:2
false 35:3 39:5 49:22
50:12 53:19 56:6 93:8
99:10 100:9 111:11
112:3,22 113:10
familiar 17:6 21:21
23:18 33:9 88:15
90:12,15
family 15:17
fantasy 39:11
far 27:18 33:2 38:20
farm 94:1
farms 99:8
favor 78:10,12 79:10
81:3 110:14
avored 79:16
favorite 108:2
FCC 21:20 23:19 52:11
82:1
feature 37:20
features 37:15,19
federal 4:18 5:17 13:19
14:5,7 15:17 16:1
30:1 33:22 54:14 55:5
85:6 114:3
federally-funded 13:18
feedback 10:21 34:6
95:11 108:11
feel 35:13 111:12
feeling 18:8 19:22
feels 92:13
Fellow 64:20,21
fewer 91:8
field 95:22
fields 55:16
fight 87:19 90:10 94:20
fighting 89:15 90:20
figure 18:5,6 19:22 27:9
27:17 29:7 60:12,14
67:10
figuring 19:5
file 21:2 47:1 101:6
103:10,11,18 104:12
filed 45:1 92:5
files 76:17
filing 19:8 83:19 84:9
85:6
fill 41:22 57:1
fills 35:20
filter 92:12,13 100:15
filtering 100:18 113:9
final 71:17 84:22 111:5
finalized 110:15
finally 14:1 30:3 34:1
39:13 66:6 67:17
71:12 73:12

find 19:11 21:4 32:2
33:15 34:4 37:1 43:14
44:10 47:3
finding 38:12 39:3
43:15 102:8
findings 73:20
finds 105:4
finish 93:12
firms 31:9,13
first 5:11 6:6 8:18 14:16
14:22 17:10 23:17
30:12,21 36:12 40:6
49:15 51:2 52:6 61:22
66:1 68:5 75:13,20
76:14,20 77:13 79:6
80:16 81:11 91:22
96:5 98:18 100:11
fit 9:12 13:10 60:20
fits 57:7
Fitzpatrick 2:7 3:20
63:12 85:16,17 98:8
98:17 105:2 111:16
Fitzpatrick's 64:14
five 45:14 58:14,16
87:17
fixed 31:14 62:17
flag 47:21
flagged 93:2 100:20,22
113:10
flashing 34:12
flavor 59:22 68:1
flexibility 14:6 55:11
flies 97:9
flood 32:2
focus 12:6 60:11 61:22
63:4 65:22 66:9 89:17
focused 8:4 37:4 40:6
focusing 30:10
folks 18:9 26:8 59:17
88:6 112:9
following 12:15 40:7
follows 24:9
Food 5:17
foot 21:19
force 6:7
forced 21:15
foreclosed 97:1
foreclosing 54:7
foreign 24:20
foreign-based 99:8
form 52:7 57:15 73:4,22
75:9 105:14 109:8,8
formality 45:9
format 28:21 37:13
former 15:4
Fortune 13:13
forum 18:2 22:13 75:15
forward 7:4 62:17

found 65:8 72:1
foundational 48:15
framing 59:17
fraud 24:11
fraudulent 3:9,17 23:9
 23:16 25:17 27:22
 76:5,9 80:14 81:22
 82:3,11 83:9,13,15
 84:14,19 85:4,11
 99:14
free 28:12
frequency 97:10
frequent 6:1
frequently 15:16 20:3
 51:22
fresh 15:1
friction 91:1,6 92:22
 93:19 94:21 100:8
front 15:4 17:4 22:17
 70:3
full 10:15 33:19
fun 16:18
function 25:6 46:2
functionality 55:5
fundamental 22:15
 75:20,22 107:15
fundamentally 16:7
funny 51:19
further 9:1 37:10 55:7
 101:1
furthermore 29:18
future 8:12 9:7 20:14
 62:6 111:19

G

game 54:13
gamed 87:11
gap 35:20
gaps 57:1 59:22
gathering 49:5 61:10
gating 23:11
gauge 81:18
general 1:9,13,15,18
 4:9 68:19
generally 31:7,12 66:3
 79:17 81:12,16 96:9
generate 26:15 84:1
generated 57:18 58:5
generating 22:12 94:3
genie's 27:2
gentleman 39:21 63:1
 113:15
George 2:5 14:11 63:9
 63:11 64:8 65:4
 103:12 107:4
gerbil 90:16
getting 22:3 37:22
 39:14 47:16 49:12

57:4 59:20 60:9 81:18
giggling 15:3
girls 91:10
give 11:4 48:16 58:13
 64:12 82:18 83:7
 111:9
given 23:10 24:22 37:6
 86:15
gives 33:2 68:1
glad 86:3
glib 113:6
Global 63:12 64:14
goal 9:5 35:3 39:13
 114:2
goals 75:22
gong 96:14
Google 2:7 3:20 63:13
 64:15 85:16 88:10,10
 91:18
Googles 91:10
gotten 48:14
govern 47:19
governed 5:3
government 1:1 4:17
 4:18 5:7 9:7 13:19
 14:5 16:21 17:8 21:11
 29:17 30:1 31:10 57:6
 63:20 64:10 79:3 85:7
 86:19 87:8 94:18,22
 95:17 101:8 104:21
 114:17
government-wide 1:18
 7:13,16,19 9:5,8,9
Graduate 88:2
grapple 85:13 109:17
gravity 71:6
greater 112:1,18
greatest 113:11
grievances 17:9
ground 74:6
grounded 106:9 110:1
grounds 109:2
group 44:21 65:20
 68:10 70:11 84:8
 105:19 110:16
group's 65:21
groups 20:11,11 21:5
 36:12,13,17 37:18
 38:16 44:12,13 68:18
 68:19,21 69:16,16
 73:7 99:6
grow 13:14
GSA 4:4 5:8 7:3,13 8:1
 9:5,5,20 29:11 50:19
 75:14 86:4
guardrails 27:10
guess 21:17 25:9 28:22
 42:21

guessing 44:21
guidance 7:16
guide 17:15
guiding 38:2
guilty 17:17

H

half 14:21 23:20 69:4
halt 74:7
hand 11:3,5,7 14:13
 29:3 48:11 51:4 56:7
 56:8 65:1 70:6 79:3,5
 103:8
handbook 56:21
handle 66:7 71:13
happen 32:12 99:18
 115:6
happened 32:10 82:5,6
 102:10
happening 69:18
happens 54:2 91:18
 105:19 106:14,15
happy 43:7,14
hard 34:2 35:6 61:15
 94:9
harder 60:14 91:12
Harvard 26:14
hate 72:8
head 63:12 64:14,15
hear 34:13 98:9
heard 9:3 17:17,19 18:3
 57:8 65:18 79:6 98:10
 105:10 107:8
hearing 7:4 14:17
 108:13
heart 86:17
Hedren 2:3 3:7 12:18
 14:15 43:9 51:16,19
 56:16
held 4:19 81:16 96:17
help 8:12 9:19 18:6
 29:2 34:22 41:19
 42:12 60:7,8,13
helped 9:8 13:13
helpful 44:6 60:1
helping 28:4
helps 60:1
Hey 48:13
high 24:1 26:1 32:18,20
 33:6 39:10 47:13
highest 61:13
highlight 99:12
Hill 5:16 106:15 107:5
 110:12
hinted 114:11
hip 88:7
historically 72:4
Hoffman 88:1

holding 11:7 49:15
home 27:1
honorable 6:3
hook 24:14
hope 74:4 114:18
 115:11
hopeful 94:16
hourly 44:2
House 86:2 106:11
 107:1,7,19
housed 29:19
houses 4:10
HOUTH 51:6,13
HR 44:1
huge 36:8 82:2 87:6
human 26:18 27:15
 92:10
human- 90:1
human-based 94:8
human-driven 93:13
hundred 4:5
hundreds 71:19
Huth 1:14 3:2 4:3,7 7:11
 48:13 49:12 50:4,13
 56:11 58:12,16 60:18
 95:10 98:1,10 101:5
 104:20 107:18 110:20
 111:5 113:14
hypothesis 25:17,22

I

ID 56:2
Idaho 26:17 57:17
idealistic 106:8
idealistically 106:10,21
ideas 28:2
identical 58:22 65:14
 67:14
identification 55:2,20
 58:6
identified 23:20 67:11
identifies 43:22
identify 23:18 24:10
 35:16 36:17 37:5,8
 49:10 54:1 56:7 68:7
 75:2 94:2
identifying 17:2 73:13
identities 23:21,22
 24:13 90:3,5 94:7
 104:15
identity 24:11 49:22
 50:18 52:21 56:2 82:4
 84:6,10,12 85:5,8
 90:5 101:6,22 102:5
 104:4
ignores 77:22
ignoring 39:16
illustrative 67:18

imagine 35:7 53:18
 54:1 90:18,20
imaging 27:4
immediate 110:8
immediately 28:10
 38:19 102:16 109:22
immense 112:18
impact 2:1 25:10 36:8
 42:4 87:1 98:13
 113:12
impacts 3:7 40:7 88:21
impeding 56:8
impetus 22:13
implement 45:22
implemented 44:1
implications 65:9
importance 32:9 62:19
important 4:13 22:19
 25:15 27:6 30:21 31:5
 32:13 53:9 58:1 60:9
 62:1 75:16 76:3 85:5
 85:12 86:5,5 99:11
 113:4,20 115:10
improve 8:16 10:11
 16:13 41:19 43:4 62:4
 114:1,2
improvements 36:3
improving 10:2
in- 115:8
in-person 10:22
inaccurate 103:19
incentive 82:8
inch 47:4
incidents 100:9 112:22
include 10:4
includes 61:9 82:21
including 28:3 50:12
 89:12
incorporating 60:22
increase 3:19 28:18
 93:11,22
incredibly 44:7 45:19
indecent 85:9
independent 14:4
 15:18 29:20
independently 49:9
indicating 50:1
indistinguishable
 26:18
individual 12:11 70:19
 74:19,20 91:13,20
individually 72:17
 76:10 80:15
individuals 24:13 58:4
 59:2 70:20
industries 20:10 37:5
industry 69:6
inferences 48:4

infiltrate 89:14
influence 25:21 77:2
info 56:15
informal 15:8
information 1:16 4:12
 5:6,14,21 7:20 9:14
 12:7 30:17 31:18 35:4
 37:12,13 39:14 42:1
 42:20 43:6 45:20 49:6
 50:8 55:13 56:13
 59:15,20 61:17,20
 78:17 81:7 83:16,17
 84:2 85:6
informs 20:14
infrastructure 62:2
initial 49:4 62:9
initiated 70:10
initiatives 9:9
inner 44:11
Innovation 12:22 13:17
innovations 6:10
innovative 8:19 9:6
 10:11
input 29:1 82:18
insight 41:11
instance 89:6 91:19
 94:1 104:17
instances 79:13 84:6
 87:13 97:3,14
instigated 90:22
Institute 63:22 64:21
institutional 18:10
institutions 86:19 87:7
 87:8
insurance 24:11
integrate 61:16
integrating 114:16
integration 9:1 10:10
integrity 12:8 49:1
 62:20 84:18 86:18
intended 98:21 99:4
intention 75:5
intentional 49:3
interact 36:9 49:8
interacting 69:11
interaction 7:7 91:20
 91:21
interest 99:6
interested 47:10 68:12
 114:21
interesting 15:9,11
 66:16 79:2 106:17
interestingly 26:20
 83:10,21
interests 65:10 99:7
 112:12
interface 36:8 38:19
international 8:4 63:16

64:7
internet 38:8
interning 107:5
intertwine 40:9
Intrinsic 68:16
introduce 5:9 12:17
 63:2,6
introduction 3:1,5,13
 15:3
inundated 74:6
investigate 33:18
investigation 101:1
invisible 91:17
invite 7:9 38:7 83:5
 114:8
invites 38:8
inviting 14:17 23:5
 75:16
involve 20:17
involved 24:4 59:4
 93:19
involving 97:12
IP 94:10,13
isolated 25:18
issue 7:7 14:18 22:19
 84:17 86:5
issued 82:17
issues 6:9,19 11:22
 17:13,14 23:4 24:15
 30:6 52:1 66:13 76:12
 85:4,8,10,13 114:18
iterate 100:11
iteration 80:3

J

JANUARY 1:7
jeans 85:21
Jessica 1:17 3:4 5:10
 6:11 7:9 115:5
job 42:16 104:20 105:6
 105:8 106:12
jobs 30:15 31:5
join 29:11
joking 90:13
judgement 46:22 66:22
judicial 78:1,15 109:3
 110:2
jump 46:18 59:9
jumped 15:12
jumps 51:17
justifying 78:18

K

K 107:7
keep 12:5
keeping 15:7
key 5:1 26:11 27:16
 34:10 39:3 50:19 89:7

100:5 113:8
kick 23:6
killed 45:9
kin 24:14
kinds 100:4 114:17
kit 100:3
knew 48:19
knowing 20:8 54:8
knowledge 30:13 33:13
 42:13 66:15 84:11
 97:4,13
known 19:12 68:2
 89:11

L

labor 12:18 13:4,10
 68:19
laid 26:21
language 58:20 60:16
 77:19
large 18:14 19:3 24:1
 25:11 31:9,13 45:8
 46:17 94:6,8,12 99:14
largely 106:16
larger 9:1 25:10,19
 65:10 75:4 110:9
latest 5:22
law 52:16 58:10 63:22
 64:2,21 77:14,15,15
 78:5,19 101:7 107:22
 107:22 108:3,18,22
 108:22
lawyer 101:10,15,16
 110:5
lay 94:15
lead 12:22 13:17 14:10
 23:2
lead-in 40:18
leadership 8:2
leading 23:7
leads 13:7 18:4 27:20
 50:16
learn 93:5
learning 37:4 88:3 89:5
 90:1 92:6 93:5 94:10
 98:2,11 114:21
learnings 100:12
leave 115:6
left 86:2 105:6
left- 70:5
left-hand 67:17 71:7
legal 4:21 7:5 12:18
 13:5,9 17:13 27:10
 41:3 85:3,12 102:18
 103:3 108:8 110:1,6
 110:18
legally 17:20 77:17
 109:19

legitimate 32:1,9 73:22
80:22 92:22 93:10,10
98:4,13 99:4,6,17
100:8 101:4 103:9
112:13,16
legitimately 112:7
let's 108:6
letter 20:4 33:19 34:2
38:1 44:17 45:1,4,10
46:5 59:6 75:9
letters 47:2 58:22
level 43:19 70:10 76:16
86:14 91:6 92:16
93:17,18 95:22
100:15,16 111:10
112:22
levels 100:17
LexisNexis 55:22
lie 8:11
life 31:1 47:4 57:14
111:20,20,21
light 76:10
liked 40:18
likelihood 54:8
limit 98:2
line 85:22
listen 18:1 86:3
listening 83:4 96:19
lists 89:11
literature 81:13
little 6:15 14:19,22 17:5
19:6 21:18 22:10 32:8
35:5 46:1 57:5 60:11
67:4 70:20 75:8 88:4
92:21
live 15:2 87:6
long 7:1 71:19
long-term 114:11
longer 44:6 70:15
look 16:12,13 44:3 47:8
48:2 50:11 62:5,7
68:4 69:4,13 72:1
75:20 76:9 83:3
101:13 111:6,20
112:9
looked 71:14 85:1,11
89:1
looking 7:4 14:20 23:3
66:11 67:11,16 70:6
70:21 83:12 114:19
looks 46:9 60:15 76:12
lose 34:12
losing 53:4
lost 32:2
lot 15:19,21 19:4 20:18
21:22 24:7 25:17 27:5
33:12,21 41:15 43:10
45:2,15 54:9 56:17

58:18 69:10 80:12
81:15 86:2 90:12 91:1
95:19 102:6 105:9
114:8
lots 27:7
loud 14:16
love 42:20,21,21 43:9
56:16 72:7 106:10,21
low 33:5 34:7,14 97:16
lower 67:17
lowest 34:19

M

machine 37:4,12 57:13
88:3 90:1 92:5 93:5
94:10 98:1,11
machines 27:16 58:6
87:11
Madam 45:5
magnitude 99:20
mail 74:19 75:3,8
main 66:1
Major 107:10
majority 5:19 80:8
makers 19:18 50:9
61:17
making 20:14 23:14
27:14 38:17 39:12
60:8 64:11 74:7 77:3
85:2 106:13,17
malware 89:13
manage 13:14 61:1
87:3
managed 74:9
management 1:13,15
1:17 4:9,11 7:15 9:17
86:14
Mancini 1:16 3:3 5:10
5:11 6:4,5 115:6
manner 72:20
Manufacturers 2:3
12:20 13:6 45:7
manufacturing 3:6
13:11,13 14:18 15:16
map 28:14
mapped 57:21
March 114:13
mark 53:4 87:15
market 95:4
Marshall 36:4
Mason 14:11 63:11
mass 1:3 2:1,4 3:6,11
3:15,17 4:22 8:21
15:10 16:16,22 30:11
31:21 32:10,16 33:6
33:17 34:7,14,20 35:1
39:4 47:6,8 53:2,6,10
58:2 59:4 62:11 63:5

65:6,13 66:2,4,6,17
66:20 67:1,2,5,9 68:9
68:22 69:9,15,18 70:5
70:6,15 71:1,5,13
72:2,6,18 73:3,6,20
74:2,19 75:3,8 76:5,9
80:13,16,22 81:6,21
85:10 86:11 98:4,12
98:14 99:4 109:12
110:17 113:21
matches 26:6
materials 114:8,9
matter 18:13 30:15
39:20 52:16 56:14
57:2,16 58:10 77:20
81:10 83:14 84:7,10
86:12,13 108:20,21
110:6 115:13
matters 45:17 82:7
84:12
mature 26:20
Max 26:15,20
maximize 56:9
McCarthy 110:12
McLuhan 36:4
mean 8:13 17:7 36:6
44:8 59:1,3,5,10
68:17 76:19 103:5
105:5 106:12 107:5
108:13 111:12
meaningful 38:18 40:2
means 22:16 54:17
67:20 105:18 111:6
measuring 108:10
mechanism 23:11 76:2
90:22
media 25:19
Medicaid 26:17 57:17
medium 36:4
meeting 1:5,9 11:13
114:14
member 13:7 63:21
members 5:4 17:18
65:20 83:5 97:3,16
membership 21:4 69:1
69:15 73:7
memo 54:20
memorized 49:21
mention 72:20 84:22
mentioned 45:21 53:18
72:9,10 102:2
mentioning 54:12 82:1
Mercatus 14:11
mere 71:8
merely 97:18
mess 67:3
message 36:5,6
met 1:9 111:1

metaphysical 111:18
methodology 26:21
mic 29:6 34:12
Michael 2:7 3:20 63:12
64:13,15 85:16
Mickey 55:18 103:12
Mike 102:20
million 23:19 110:13,16
millions 89:1,2,11
104:13
mind 11:5 12:5 31:20
43:10 46:14,18 51:16
51:17
mindful 27:12
mine 108:3
minimize 113:12
minor 104:17
minutes 6:12 12:15
40:11 44:3 48:10
58:14,17 65:7 95:7
misappropriating 90:4
104:14
misappropriation 82:4
94:7
misrepresentation 84:9
misrepresenting 85:7
missing 18:18 36:1
mission 65:21
misunderstanding
22:15
mitigate 27:22 62:14
88:17 93:15 94:4
mitigating 32:4 94:14
MITRE 2:2 3:9 13:1,17
13:17 23:5
MITRE's 23:2
mobilized 105:20
model 16:10
moderation 89:9
modern 13:10
modernization 10:9
11:17 12:1 114:7
modernizing 8:18 61:8
modifications 26:12
moment 6:9 20:22
110:19
money 24:19 44:5
motivated 81:16 107:6
Mouse 55:18 103:12
move 62:4,17 72:21
80:14 85:15 95:10
100:14
moved 47:3
moves 72:12
Moving 10:1
multiple 18:7 53:8

N

NAM 13:12
name 4:7 12:21 14:22
 23:2 29:8 35:22 53:12
 55:13 68:16 83:20
 103:13
names 35:3,8 39:5
NAMs 13:7 69:8 91:10
narrow 110:6
national 2:3 8:4 12:19
 13:5 45:7 64:22 70:13
natural 9:12 45:2 67:12
nature 92:4 104:6,18
near 65:14 67:14
necessarily 35:11 44:9
 47:16 52:15 95:18
need 11:2 14:22 16:4
 18:6 21:18 25:4 27:12
 28:8 30:14 31:18 58:2
 59:14 62:10 85:13
 87:9 93:16 102:12,17
needs 8:20 30:17 57:7
negotiated 83:1,2
nerd 15:1
net 23:19 31:4 79:16
 80:2 82:1 102:9
Neutrality 23:19 79:17
 80:2 82:1 102:10
never 22:4 39:18
new 8:9 10:8 13:20 16:6
 30:5 31:4
news 48:21 54:21 89:21
 90:18
NGE 64:16 86:3
nightmares 90:14
non-bot 93:13
non-carbon 57:14
non-technology 99:22
non-trivial 25:3
normal 21:9
normative 47:8
North 5:16
note 67:20 109:13
notecard 11:3,7
notecards 11:1
notes 67:13
notice 3:17 4:14 54:15
 69:11 72:4 74:6 75:21
 76:4,15 96:8
noticing 94:11
notion 53:2
now's 20:22
NRDC 68:18
number 41:20 42:5
 67:22 71:14 79:10
 81:1,2,9 82:7 85:3,10
 88:14,17 94:12 96:15
 109:8,11,13 110:5
numbers 44:14 49:9

69:13 71:8 99:14
 105:21
NW 1:10

O

Obama 64:18
objection 96:4
objective 58:7
obligated 109:19
obtuse 100:2
obvious 26:8 31:22
obviously 18:15 77:5
 85:2,12
occasion 70:1 71:11
occasionally 73:10,11
 99:16
occur 8:17 93:17
occurs 17:1 110:3,10
Off-mic 58:9 80:20
 102:22
offense 106:14
offer 51:15
office 1:13,15,16,16,18
 4:8,11 5:6,7,13,20
 7:12,14 9:4,16 13:2
 14:3,6 29:9,15,19,20
 33:11 36:14
Officer 7:22
offices 7:15 9:7 107:7
official 11:17 49:20
Oftentimes 109:12
OGP 9:13
OGP's 9:5
OIRA 6:20 9:15 43:13
 64:18,19
old 46:8
older 62:3
Oliver 2:2 3:11 13:1
 14:1,9 29:8 40:17
 63:10
OMB 5:7 54:20 61:19
once 56:2 66:7 75:1
one's 112:15
ones 35:10
ongoing 88:22
online 48:8
open 4:17 56:8 114:10
opening 3:3 6:4 113:7
opinion 53:3 57:14,15
 77:7,9 78:4,6,8,20
 81:15,18 82:13,15,15
 83:8 84:15 96:6,13,18
 96:20 97:21
opinions 6:21 53:15
 77:5 95:20 109:7,14
 109:17
opportune 6:8
opportunities 8:11

27:21 94:18 95:5
opportunity 6:14,17,22
 9:11 11:20 29:2 36:3
 39:11,11
opposed 101:2
opposing 77:1
opt 39:8
optimal 76:12
order 5:12 40:15 64:13
orders 99:20
organization 5:5 65:17
 68:2,7 70:14
organizations 8:3 9:16
 65:18 66:3 69:1,2
 70:20 98:5,15
organizing 6:8 68:20
original 75:10
originally 56:20
originate 24:20 58:3
originates 57:13
outcome 78:12
outlets 48:21
outlier 96:17
outnumbered 57:18
outside 28:9 31:1 37:18
 94:2
outweigh 41:9
outweighs 112:19
overall 12:6 81:9 82:7
 104:11 109:8
overhead 25:1
overlap 76:19 77:6
oversee 9:7
oversees 7:15 9:13
oversight 7:14 61:19
overstep 27:13
overwhelm 99:21
overwhelmingly 79:19
 80:4
owners 33:21

P

P-R-O-C-E-E-D-I-N-G-S
 4:1
p.m 1:10 4:2 115:14
pages 20:6 71:19
panel 2:1,4 3:5,13 4:21
 11:2 15:5 23:5 29:12
 38:5 40:6,8 49:14
 51:10 58:12 60:20
 63:2 68:8 79:7 83:11
 113:15 115:2
panel's 63:4
panelist 85:20
panelists 12:5 14:14
 29:11 75:18 114:19
 115:1
panels 115:3

paper 26:13,22
part 5:1 11:17 25:19,20
 30:4 51:1,2 59:10
 75:7 79:21 98:4 104:8
 106:13 109:10 115:10
participant 21:1
participants 46:20
participate 58:21 75:17
participating 4:6 5:3
 10:17 103:21
participation 37:9
 56:10 64:10 73:5 76:2
 91:7,8 103:16
participatory 96:9
particular 28:14 37:9
 42:18 43:13 53:6 54:9
 71:21 74:1 90:11
 91:21
particularly 30:21 69:2
 80:1 91:7 109:11
partner 10:3 49:7 50:9
 55:4 61:19 94:18
partners 10:7
partnership 9:21
parts 31:8 38:14 51:1
 62:2
pass 22:22
passive 46:19
passwords 56:3
Patrick 2:3 3:7 12:17
 14:14 32:7 40:22 41:1
 54:11 69:8
Patrick's 13:4
pattern 24:9
patterns 92:4
pause 29:3
payer 24:19
PDF 67:19
pegs 103:5
people 4:18 11:12 18:1
 19:9,21,22 21:2,3
 22:3 32:12 44:21 45:2
 52:14 53:22 57:3
 58:18,21 59:4 60:3
 75:6 80:5 81:15 82:6
 90:4 91:8 93:10 95:16
 95:17 97:1 102:8
 103:10,21 105:17
 113:3
people's 104:14
perceived 79:1,2 84:18
percent 31:2 44:22 81:4
 92:9,10 100:21
 110:14 111:17
percentage 32:21 48:16
 79:15 81:3,9 82:9
 109:8
percentages 69:15

108:12
perception 62:19 79:22
 86:20 87:5
perfect 93:6
perfection 111:18
perfectly 103:9 111:13
period 33:20
permissible 21:9
permitted 78:8 103:10
person 45:21 83:18,19
 84:7,11 85:6 90:7
 102:5 115:9
personal 7:17 52:20
 53:3 92:2
personality 59:21
personally 30:4
perspective 18:11
 20:18 25:21 33:2 39:6
 40:9,20 41:1 51:5
 55:8 57:4 61:21 62:6
 62:19 63:5 80:6 83:13
 85:1 86:7 94:8 96:11
 101:19,20,21 102:3,4
perspectives 2:4 7:6
 39:19 40:4 59:18
 101:13
pertains 27:11
petition 17:8 53:11
phase 16:20 61:10
phased 49:3
PhD 5:15
phenomenon 30:10
 66:11 74:8 81:21,22
phishing 89:12
phone 92:19
photos 90:14
phrase 88:1
piece 42:15 70:21 71:21
 72:16
pile 39:17
pillars 4:16
pilot 100:13
place 16:15 18:9,17
 30:12 38:12 55:9 62:2
 66:11
plan 51:20
plant 70:9
plastics 88:2
platform 36:6,7,11,15
 37:10,15,17 38:10
 60:13
play 30:22 36:14 56:5
 85:20 110:22
players 69:7 87:12
playing 95:22
please 12:5 42:8 51:18
plebiscite 79:9
PMO 9:12,22 10:19

point 15:15 18:5,19
 19:16 29:18 32:11,11
 44:18 47:8 52:17 53:7
 54:4 68:8 72:17 73:18
 79:18 80:4 99:20
 102:11 106:19 111:19
 112:5,6
pointed 79:15
points 16:18 43:4 53:8
 70:16 103:8
policies 13:10 25:4
 76:11
policy 1:18 2:4 4:22 5:7
 7:5,13,16,18 9:5 12:7
 12:19 13:5 19:18
 20:14 23:3 25:1 40:9
 51:11 58:1 63:4 64:6
 64:11 77:10,11 79:16
 85:2 93:16 105:16
 106:13,17
political 64:6 106:1
 107:10 110:4,9,19
politics 15:9
poll 82:15 96:18
pool 100:22
poor 3:10 31:20 32:15
 32:16 39:8
popped 22:1
popularity 105:17
portion 41:14
posit 99:19
position 53:6 60:3,4
 76:22 77:1 80:7 96:4
positioned 43:18
positions 6:2 8:2
positive 21:10 111:11
 113:11
positives 93:8,11 99:10
 100:9 112:3,22
possible 7:2 28:15
 34:19 36:19 38:18
 54:7 62:15,16 111:13
 113:11,13
possibly 16:4 44:11
post 19:11
postal 51:22 52:1,16
posting 75:6 82:9
postings 26:4
potential 8:16 28:17
 50:11 62:5 89:3 98:2
potentially 25:13 28:12
 28:18 37:5 78:1 80:12
power 15:14 70:9
powerful 110:9
practical 61:21
practically 66:14
practice 13:15 64:2
practices 9:10

practitioners 40:4
PRC 52:2
preamble 108:6 109:10
precise 37:14 100:7
precision 93:6
predicate 45:13
predictive 92:7 111:7
preference 17:15 71:9
 73:9
preferred 78:12 80:9
prepare 40:13
prepared 12:16 48:7
presence 31:8
present 1:12 6:3 61:20
presented 33:16 77:21
 108:20,21
presents 36:3 67:18
preserve 94:21
President 12:18
presidential 63:18
presiding 1:11
pressure 21:22
presumably 82:5
pretty 26:5 43:21 46:22
 47:12,13 77:6 78:19
 81:13 114:20
prevalent 44:9
prevent 98:3 100:20
Preventing 94:5
prevents 52:13
previous 68:8
previously 30:7 64:15
primarily 36:19 39:5
principally 98:19
principle 17:1
Prior 7:22 13:11 14:9
prioritized 49:11
priority 62:8
privacy 85:9
private 31:2 112:10,12
privileged 16:15
probably 6:20 14:22
 15:6 17:17 21:17
 24:20 35:21 37:21
 38:22 39:1,3 42:6
 44:4 78:14 80:18
 82:13 85:5 93:20 96:3
 104:7
problem 17:3 18:6 27:8
 31:22 34:9,15,16
 61:11 76:6 82:8 87:5
 103:4,6 104:5 107:16
 107:17
problematic 80:6
 102:11,15
problems 13:22 21:12
 34:8 80:12
Procedure 4:13 107:9

Procedures 27:11
process 4:15 5:1,5 7:8
 8:22 10:5 12:6,9
 15:14 16:12 18:14
 20:21 22:3,16 24:19
 28:13,19 30:2,6,12,16
 31:9,17,22 34:19
 36:19 38:17 41:5,12
 43:5 44:11 45:20
 46:20 47:5,19 49:2,3
 61:5,9 62:21 69:12
 72:5 73:21 74:4,10,11
 74:14 79:1,8 84:18
 85:2 86:13,17,19
 87:11 89:21 91:2,3,7
 95:1 96:9 102:13
 103:17,22 104:12
 106:14 110:1,7
processes 74:7
procurement 8:5
products 37:8
professional 44:1
Professor 63:8 64:5
profile 24:2 26:1
profound 96:3
program 1:13 4:11 5:3
 8:13,14 9:20 14:10
 20:1 84:1
Programmatic 7:19
programs 7:17 23:3
 37:9
progressive 68:19
project 3:15 65:5,22
projects 63:16
proliferation 86:11
prolific 87:17
promote 10:12
promulgate 9:10
proof 26:9
Property 7:17
proportion 89:19
proposed 33:16
pros 51:13
prosecuting 104:9
prosecution 103:20
 104:15
prosecutorial 104:8
protect 91:4,4
protecting 56:6
protection 90:22
provide 7:16 9:6 31:17
 36:15 55:5 58:19 75:7
 109:10 114:9
provided 75:8 109:1
provides 39:10,16
 55:10 77:21
providing 22:13 55:15
 76:21 108:9 109:6

provisions 28:15
pseudonymous 103:11
psyche 22:2
public 1:5,9 2:4 3:10
 5:20 6:17 8:1 10:6,12
 16:5 19:1,2,3,4 20:11
 21:22 22:2,6,7 24:5
 26:3 30:12,13 31:16
 35:5 39:15,16 40:9
 41:4 43:17 44:9 45:19
 46:16 47:12,16,22
 51:10 56:9 57:5,15,22
 58:19 64:6,10,22
 76:2 79:4,21 81:14,18
 82:12,15,18,19 83:5,8
 96:6,12,20 97:3,17,21
 99:7 112:1,11 114:3
 114:14
publically 75:5
publishers 88:19 89:6
pulling 57:6
pure 58:5
purpose 3:17 75:21
 99:3
purposes 76:15 96:8
push 27:18 56:5 95:1
put 37:11 55:16 62:13
 71:16 93:2 102:17,18
 114:13
putting 29:12 53:19
 75:15 86:4 114:20

Q

Q&A 3:12,21 12:15
 68:11
quality 3:11 10:2 31:21
 32:15,16,18,20 33:6,7
 34:7,14 39:8,10 43:15
 47:13 61:7
Quality/High 3:10
quantify 25:10
question 3:8 11:6,10,21
 23:6 27:6,20 33:4
 34:10,17 40:12 41:4
 41:14 43:10,12 44:18
 46:13,14 48:15,19
 49:15 50:17 51:2,7,7
 51:11 56:12,17,18
 58:15,17 59:10 60:19
 62:9 68:5 71:12 75:20
 86:16 87:2,22 89:18
 95:7,15 96:3 98:22
 99:10 106:8 110:21
 111:4,5 113:11
questions 11:1,9,12
 12:4,10 21:14 40:13
 40:14 44:16 46:4,11
 48:8,12 49:13 56:22

66:1 83:11 89:8 95:12
 98:5 105:15 113:13
queue 11:11
quick 50:21 52:4 72:7
 74:16
quickly 62:3,14,16
 64:12 72:11,21 95:14
quite 15:19 24:7 79:22
 86:10 87:4 89:15,15
 91:16 107:14

R

race 26:19 28:1
raise 11:3,7 28:3 76:11
raised 68:8 71:22
 105:15
raising 11:5
range 43:20
ranks 5:22
rarely 73:11
rarer 69:22
rate 44:2
raw 71:8
reach 17:19
React 72:21
reaction 80:2 106:8
read 20:5 33:21 58:17
 107:15
readable 37:13
readily 73:13
reading 34:3
ready 95:8
real 7:17 18:2 22:2
 23:15 24:18 58:4
 82:10 90:9 93:11
 99:11 100:2 103:7
 104:5
realistically 107:3,11
reality 35:15 62:20
 86:21 106:9
reason 33:7 78:13 82:5
reasonably 30:18
reasoning 71:11 72:14
reasons 30:21 31:16
 35:7,9 52:22 66:10
 76:4
rebuttal 19:13
reCAPTCHA 90:11
 91:15 92:19
receive 18:18 46:21
received 10:2 72:21
 78:10 81:2 82:10
 109:13 110:13
receiver 102:14
receiving 54:17
recommendation 83:1
recommendations
 82:17

record 24:5 33:1 35:14
 60:7 67:6,8,22 74:22
 99:9 115:14
recorded 11:13
recording 66:17
records 67:21
red 93:1
redress 17:9
reduce 100:7 112:20
reduced 94:21
reducing 93:7
reemphasize 59:12
Reeve 2:6 3:18 63:6,14
 75:12 86:8 95:16
 101:14,18 103:1
reference 88:9
referenced 56:4
references 67:22
reflect 75:4
reflective 73:17
reform 13:9 20:16 41:3
 41:12 52:1
regardless 74:18
Register 33:22
regulated 16:5 19:2,4
 69:5,21
regulates 66:14
regulating 47:20
regulation 1:13,15 4:9
 7:14 9:17 14:11 17:7
 33:16 37:6 71:17
 106:10,18 107:4
 108:1,7
regulations 9:9 13:9
 37:11 41:2 68:17
 95:17
Regulations.gov 11:18
 12:4 18:13 36:20
 50:18 51:21 54:12,22
 55:9 67:7,21 73:15
 74:21 75:6 107:13
 114:22
regulator 35:14 36:21
 52:5
regulators 30:14,16
 31:17 41:11 59:15
regulatory 1:16 2:5
 4:12 5:6,14,21 7:8,18
 8:22 9:2,14 10:5 12:6
 12:19 13:1,5,14 14:2
 14:6,8 15:1,14 16:12
 17:16 20:1,16,17 29:9
 30:2,6 31:9,13 34:3
 40:17,19 41:6,12,16
 42:4 45:3 46:8 47:22
 51:22 60:7 63:12,17
 64:2,9,14,16 89:21
 114:15

relate 4:22
related 9:15 11:22 30:9
 34:21 49:15 50:16
 56:12 63:16 85:8 97:7
 114:17
relationship 52:5
relative 34:19 54:6,8
 66:16
relatively 97:15
relatives 102:9
relevance 97:4,17
relevant 17:20 36:17
 45:20 56:22 59:1
 77:13,20 78:22 81:7
 82:13 83:16 84:2,20
 96:6 97:13 101:17
 108:14,20,21
reliable 31:17 37:14
reluctant 35:13
remain 62:2
remarks 3:3,22 6:4,13
 12:16 29:13 65:2
 74:16 75:19 113:7,17
remember 51:1 56:20
remembering 30:11
repeat 98:9
repeated 26:10
repeatedly 72:15
report 34:8
reports 84:11
represent 29:13 48:3
representative 75:4
 82:22
representing 29:22
 86:9
represents 45:7
requested 55:4
requests 38:13
require 50:17,20 51:8
 54:16,18 55:16 108:3
required 77:18,20
 108:7
requirements 4:15
 108:9,15
requires 40:15 50:19
requiring 55:2
research 13:18,20 14:9
 14:10 23:3 27:17 37:3
 63:6,14 65:10,22 95:4
researched 71:1
researchers 40:5 67:2
researches 64:9
resolve 23:12 24:15
resonant 112:3
resources 24:8 27:5
 67:12 91:8,12 95:19
 115:4
respect 21:7 23:17

76:14 77:14,16,17
78:4,22 80:10,16 83:9
84:14 85:22
respects 14:20
respond 18:22 21:15
49:10 50:10 71:21
responded 16:6
responding 8:21 73:16
76:7
responds 72:11
response 20:14 62:11
71:15 72:10 76:12
responsive 8:20
rest 16:9
restrict 93:9
restrictions 100:2
results 26:19
rethinking 16:4
retrieve 30:17
retrieving 35:4
reveal 52:21 53:22
revenue 31:15
review 34:18 63:18
65:12 78:1,15 109:3
110:2
rid 37:22
right-hand 67:13 70:12
rights 17:10
rigorous 49:3
ripple 25:14
risk 82:11 92:6 94:4
99:16 100:16,17
111:10,15 112:5,5
risk-based 62:10
risks 49:10,11 50:11
61:13 62:14 84:13
89:16
robust 8:14 37:17 95:4
Rock 106:11 107:1,19
role 4:13 10:4 29:22
30:22 31:1,5 36:14
40:22 41:2 61:6
110:22
roles 41:7
room 11:12 18:9
rooms 88:21
rule 12:12 17:12 19:20
20:12 26:4 28:13 41:8
55:1 57:21 72:7,8
73:10 77:22 78:13,15
79:14 80:2 82:1 97:5
97:13 109:3,16
110:14
rulemaking 2:1 3:7,15
4:15 8:17 11:16 12:2
17:21 18:8 21:20
22:17 40:7 43:5 49:2
62:21 63:19 64:3 65:6

66:12 73:21 74:3,14
79:8 83:1,2 87:10
91:3 96:9 109:22
110:10 114:1,7
rulemakings 12:11 22:1
48:17
rules 26:1 28:11,20
36:17 56:20
ruling 26:17
runners 11:3,4
running 48:9

S

Salmoiraghi 1:17 3:4
5:10 7:11,21 8:6
Sanith 2:2 3:9 12:21
13:16 23:2
saved 74:21 75:10
saw 9:12 22:2 82:1
saying 18:1 19:10,21
28:22 45:20 60:11
63:10 79:8
says 18:21 26:22 38:6
67:1 77:19 103:17
108:19
SBA 14:9 29:20,21 31:3
44:13
scale 87:14
scales 107:2
scenes 44:12
schedule 48:9
Scholar 64:8
school 90:14 106:11
107:1,19
Schroeder 1:11,13 3:5
3:14 10:18,20 39:21
48:5,18 49:17 50:5,22
51:12,18 54:11 58:13
61:3 62:22 74:15
85:15 95:3 111:3
science 63:17 64:6
81:13 107:10
scientific 13:20
scientist 101:11
score 92:6
screen 67:9 70:3 71:7
91:19 98:12 100:4
screening 99:14,16
se 73:7
searching 46:7
second 8:21 14:19 18:4
31:7 32:6 33:15 37:20
40:8 46:13 49:14 63:4
73:2 77:4 100:14
113:15
Secondly 66:4 81:20
section 64:2
Sections 64:3

sector 15:16 31:2 69:7
94:19 112:10,11,12
sectors 3:6 69:10
secure 8:19
security 12:8
seeing 32:3
seeking 97:6
seen 75:10
segregate 93:1 100:22
select 17:16
self- 47:9
self-referencing 29:1
senators 24:2
send 35:7 52:7 114:9
sending 49:22
senior 13:12 26:14 27:3
64:8,18,20 107:10
sense 28:20 41:3,11
46:14 47:21 52:12
53:20 62:18 82:19
83:7 97:20 99:15
110:6 112:4,9
sensitivity 92:14 111:7
sent 59:6 89:2
sentiment 82:19
separate 93:2 100:22
serendipity 105:19
series 71:20 111:21
serious 93:15
seriously 49:2
serve 9:3 55:6 61:18
served 8:1 13:12 64:17
serves 7:21
service 4:12 5:20 8:1
8:18 9:14 54:19 55:6
61:7,22 62:9 97:7
110:22 111:1
services 1:1,10,14,15
1:19 4:9 10:2 12:2,7
54:21 55:22 61:8,12
62:1,5,6 111:8 114:3
serving 5:22
session 83:4 96:19
set 10:16 61:17,18
68:20 78:1 82:22
92:12,14 105:12
113:8 114:6
setting 100:15
seven 5:22 7:15 64:16
shadowy 87:12
shape 8:12 76:4
share 112:12
shared 54:18,21 55:5
61:7
sharing 65:7 114:15
shelf 20:7
Sherouse 2:2 3:11 13:1
14:1 29:5,8 34:7

41:13 53:17 59:9
shift 36:2
shifted 57:22
shifting 39:17
short 6:13 10:16 83:2
105:14
shortcomings 20:19
shortly 110:15
show 71:15
showing 20:18
shown 80:1
shows 41:17 77:8
shut 89:4 92:20
side 41:10 67:13,17
70:6,12 71:7 102:19
102:19 104:2,4
Sidebar 67:3
sides 66:13 82:2 96:18
105:22
sift 42:22
sign 32:14,18 33:5 39:8
significant 30:22 55:10
104:11
signs 83:20
similar 15:6 21:2 24:9
38:7 58:22
similarity 26:3
simple 43:21 47:12
simplest 76:16
simplify 18:18
simply 11:6 31:14
68:14 97:22 99:17
single 91:19 94:13
Sir 45:5
sit 44:14
sites 89:12,12,13 113:4
sits 63:22
sitting 15:4 85:19
situational 84:11 97:4
six 6:11
skew 57:15 105:21
skews 25:12
slate 114:20
slide 66:9 70:4 73:3,19
slight 26:12
slow 87:20
small 2:2 13:2 14:2,4,8
29:10,16,22 30:20,22
31:3,4,7,11,18,21
32:1,9,14,21 33:3,4
33:21 36:16 39:6,7,19
45:8 52:10 70:14
91:13 112:21
smaller 31:15
smart 28:6 107:6
smarter 13:9 41:2 57:9
smiling 107:20
snippet 70:15

social 23:15 25:19
 81:13 101:11
society 24:16 58:8
 59:14 86:18
solely 29:13 85:1
solicit 34:6
soliciting 57:4
solid 48:10
solution 22:18 28:17
 43:15
solutions 3:19 8:16,19
 9:6 36:1 61:14 62:12
 88:4,9 94:20 100:1,6
 110:22
solve 13:21 61:11
somebody 20:3 50:2
 76:17
somebody's 56:1
someone's 101:6
something's 90:6
soon 38:1 114:20
 115:12
sophisticated 31:10
 52:15 87:17 91:16
 92:1 96:14
sophisticates 48:1
sophistication 91:9
Sorry 50:20,21
sort 21:10 22:12 40:12
 51:20 52:6 53:21
 56:18 69:16 76:11,18
 80:3,17,18 82:21 83:2
 83:3,4 87:18 98:12
 99:22 104:18 106:9
 108:7 111:11 114:11
soul 46:7
source 42:6
sourced 71:1
sources 71:14
space 17:6 45:3 65:19
 69:3,7,17 71:4 74:1
 87:19
spam 88:18
span 74:6
speak 29:21 51:20 56:4
 88:15
speaker 95:11
speakers 3:5,13 12:14
 40:10 51:4
speaking 24:4 40:3
 51:3 66:4,14 68:20
specific 61:3 62:15
specifically 4:14 34:5
 38:13 43:3
specifics 43:19 48:20
spectrum 106:1
speculate 101:12
speeds 92:3

spend 48:6 65:7 72:22
spending 24:21
spent 5:19
sphere 106:18
spill 49:13
sponsor 67:10
sponsored 65:16,17
 68:3
sponsoring 68:7
sponsors 66:2 68:4
spot 38:6
staff 49:18
stage 10:16 12:21 63:3
stakeholders 6:18
 66:13 68:15 69:19
 73:6 98:16 114:4
stand-alone 72:3
standing 11:5 110:18
start 8:13,14 16:1,17
 27:9 29:12 35:5 41:13
 43:11 66:11 80:13
 86:6
started 25:16,16
starting 14:14
starts 40:12
state 8:16 70:10
statement 24:6 72:7
 109:10
statements 71:9 73:9
States 2:7 64:11 79:14
 94:2 110:11
statistics 49:8
statute 20:19 56:21
 110:2
stay 7:1
stealing 101:6
Steering 8:10
stellar 4:21
step 6:15 49:4 73:19
steps 94:14
Steve 103:5,8 104:3
Steve's 77:8
Steven 2:5 3:16 63:8
stick 42:3 106:3
stolen 23:21 24:1,14
 102:5 104:5
stood 9:20
stop 22:21 93:19 99:4
stopping 101:2 112:18
story 67:4 102:6
straight 95:8
strategy 26:9
streamline 28:18
Street 1:10 107:7
strike 78:15 109:15
strong 6:21
strongly 81:16 96:17
struck 39:2

structure 28:11
structured 36:7 57:20
students 107:5
Studies 2:6
Study 64:9
stuff 108:5 114:15
sub-agencies 5:4
subject 15:8 52:14
 103:20 113:21
submission 92:3,8 93:9
 94:8
submissions 93:2
 98:20 99:9 100:4,20
submit 11:18
submitted 12:3,4 26:16
 70:18 90:2,6,21 99:6
 101:3 102:9
submitter 101:20
submitting 65:19 97:1
 103:13 107:12
substantial 87:14 89:19
substantially 32:22
 86:13 92:20 100:8
substantive 72:13,17
 87:1 105:13 106:4
 108:5
substantively 17:12
 74:17
subtle 32:6
successful 9:21
sudden 45:13
sufficient 94:3
suggested 58:20 69:8
suggests 35:20
sum 73:4
summary 108:8,10,16
super 107:6,6
supply 107:16
support 7:19 9:9,19
 12:8 21:5 37:17 41:5
 77:10,10 97:7
supporter 115:7
supporters 65:20
supporting 36:18,18
 41:18 53:6 76:22
supposed 24:2 46:5,6
surmountable 21:16
surprised 69:20
survey 38:22 46:2
surveys 45:16,17
suspect 92:8
symposium 86:5
symptom 34:9,16
synthetic 90:3
system 9:2 10:6,14
 15:21 28:9 46:9 50:14
 52:2 54:15 57:7 99:15
 99:21 105:11 110:4

114:1
systematic 66:18 73:14
systematically 104:14
systems 10:11 89:14
 114:16

T

T 2:6
table 23:7 69:4 94:16
tabulate 81:1 96:16
tabulating 79:10 81:19
 96:15 97:22
tabulation 109:6
tainting 99:15
taken 29:14 78:20 96:4
takes 24:7
talk 6:9,12 17:13,14
 22:14 43:8 68:11 88:4
 90:10
talking 16:2 32:8 40:8
 40:18 41:16 65:13
 107:20
talks 68:2
tax 24:19
taxes 24:12
teach 107:3
team 9:19 16:14 107:21
tech 26:2
technical 4:21 8:19
 43:19 61:14
technologies 13:21
 26:20 34:21 98:19
technology 7:5,20 12:7
 30:5 32:3 39:16 61:1
 74:10,11 88:4,14
 94:19,19 100:5
 105:18
tell 6:18 36:21 45:22
template 59:13,19 60:1
 71:18
templates 58:20
ten 87:18 92:7,10
 100:17
tenant 95:18
tend 96:16
tendency 32:7
tends 72:8
tens 89:2
tensions 17:6
term 106:3
terms 25:11 28:4 53:9
 57:12 69:14 71:8,10
 111:8
tested 25:22
testified 110:13
text 34:3 38:6 70:7
thank 4:3,4 6:5,6,10,12
 8:7,8 9:18 10:17,19

10:20,21 14:16 23:1,4
29:5,5 39:20,21 48:5
54:11 56:11 63:1
65:15 74:14 75:14
85:13,17 86:4 95:5
107:18 113:15,18
115:1,3,5,8
Thankfully 48:9
thanking 29:11
thanks 95:1 101:5
110:20 113:13 115:11
theft 23:18 24:10,11
85:5
theme 38:5 105:10
theory 84:3
things 6:21 7:10 15:6
15:11 17:1 20:15 28:3
42:19,22 43:10 45:14
46:14,18 47:18 52:7
54:5,7 63:21 83:2
third 9:1 15:2 19:16
31:11 71:12
thought 69:22 85:19
93:12 94:16 100:11
thoughts 3:6 59:3 96:1
98:7 102:20 108:15
thousand 26:16
thousands 71:19
104:12
threat 92:16
threatening 102:16
three 8:17 18:12 30:21
40:10 51:1,1 52:6
66:1
throw 39:18 44:20
throwing 36:1
thrown 27:8 35:22
thumb 55:1
thumbs 70:9
THURSDAY 1:7
thwart 104:11
tie 85:18,21
ties 81:21
timeframe 114:11
timelines 62:15
times 42:9 43:17 47:14
53:12 59:21 77:11
timing 60:22 61:2,4
tips 107:12
to- 21:21
Tobias 1:11,13 3:5,14
10:18 23:4 48:16
50:20 60:21 75:14
85:17 114:10
today 4:4,20 5:2 6:13
6:16 10:15 11:15,20
14:18 16:3 23:5 29:13
65:11 80:19 86:4

113:19
today's 8:14 11:13 12:5
token 91:21
told 95:12
tool 16:19 18:13,16
19:19,20,21 21:8
22:14,18 44:16 45:16
93:5 100:3 110:9
tools 15:20,22 16:1,3,7
36:15 46:10 75:1 88:9
88:13,16,18 89:1,10
90:1,10 94:10 98:11
112:10 113:2
top 67:9 68:15
topic 41:21 42:10 54:10
75:16 80:18 97:9
114:6
topics 30:9 40:9
total 6:11
tough 19:6
tow 20:5
town 54:13 106:18
toxic 88:19,20
tracking 25:1
trade 36:13 84:7
tradeoff 39:12
tradition 4:16
traditional 37:22 69:16
72:3
traditionally 73:8
training 5:15 101:17
transaction 93:22
transcript 11:14
transformation 8:11
transforming 10:6
transition 9:22
transparency 10:13
20:13
transparent 66:18
trapped 46:21
Travel 7:18
Treasury 52:11
treated 91:22
trees 45:9
tremendous 16:2
tremendously 20:3
tried 38:15,16
trigger 93:21
triggering 92:13,17
troubling 22:11
trucks 20:4
true 26:2 30:15 69:3
81:18 83:7 87:13
97:20
truer 82:19 83:7
truly 25:5
trust 87:7
try 17:14 20:16 24:14

27:1 28:8 35:16 44:15
44:16 54:21 89:8
94:22 95:13 100:13
trying 10:21 17:3 18:5,6
20:2 27:17 28:21 34:4
37:7 41:18 56:19
57:15 76:1 77:2 93:19
95:13 112:5 113:5
turn 10:18 12:13 112:13
112:15 113:18
turning 29:6
turns 26:1
tuxedo 86:1
Twelve 70:8
Twitter 26:5
two 11:4 32:13 36:10
68:12,14 69:13 70:4
76:18,20 77:6 92:18
101:13
type 11:10 44:8 45:21
68:19 76:20 77:4
85:20 89:22
types 16:6 52:6 68:13
89:4,16
typical 71:17
typically 55:1 72:5

U

U.S 13:19 29:17 63:8,15
110:21 111:1
ultimately 61:18 104:7
unable 11:15
unclear 17:5
underlying 76:15 77:14
77:15 96:7 108:18
109:18
underpin 15:21
understand 8:15 22:7
33:10 41:8 44:15
56:12
understandable 35:9
35:15 66:19
understanding 41:7
106:13 108:17
understands 106:20
undertake 91:19
unfortunately 42:9
105:5
unimaginable 25:13
Unions 68:19
unique 7:5 60:2 74:20
uniqueness 75:9
unit 42:18
United 2:7 64:11 79:13
94:2 110:11
universe 42:7 52:10
University 5:16 14:12
63:9,11 65:5 107:4

unpack 56:18
unrelated 16:18
unrepresentative 81:14
unsafe 89:11
unstructured 28:21
uploads 94:5
urgency 62:18
URLs 89:11
use 10:7 24:19 27:1
30:5 36:20 38:9 43:5
54:18 63:17 98:11
99:3 112:9
useful 45:10 53:14
59:19 84:2 110:19
user 36:20 37:1 56:2
91:22 102:14,19
users 15:14 36:9 92:22
100:9
uses 13:21 75:1
usually 41:17 47:12,15
69:11 72:10
utterly 90:5

V

valid 21:10 39:7,18
52:17,22
validate 49:9
validating 55:15
validation 52:2
valuable 20:3 44:19
45:16 46:6 61:12
value 15:22 19:4 20:8
20:13,18 35:18 57:3
66:22 113:2
variations 88:12
varies 76:13
variety 61:16 69:19
71:4 73:5 87:11
various 8:1 35:7
vast 80:8
vastly 112:19
vendors 94:17
verifiable 83:17
verification 94:11
verify 56:1
version 106:11
versions 91:15
versus 68:9 69:14 72:2
99:17 101:19
Vice 12:18 64:3
Vice-President 13:4
video 107:1
view 15:15 21:20 53:8
59:18 73:3 86:17
87:10,14 100:1
102:11,13 105:5
106:9,19
views 29:14,15,22 59:1

81:17 83:6 86:9,18
96:17 108:4,14
Virginia 1:14 3:2 4:7 6:6
6:6 8:8 23:4 40:12
48:11 58:13 75:14
95:9 98:8 111:3
virtual 4:5,6 11:9 115:9
virtually 10:22
voice 14:4,18 57:8
vote 22:8 59:12 79:9
84:16
votes 56:13 59:5,11

W

walk 107:9
Walking 38:16
wanted 23:4 94:15
99:12
wants 77:1,2 96:12
112:13
warm 8:7
wary 39:15
Washington 1:10 2:5
63:9 64:8 65:5 103:12
107:4
wasn't 51:7 64:13
Waters 79:13 110:11
way 5:21 16:4 17:15
18:2 20:5 21:3,8,11
22:2,8,9 25:9 31:17
36:7 38:9 44:6 46:2
49:11 59:7 60:12
66:17,18,21 73:15,16
77:8 90:20 94:6 96:20
100:13 108:12 112:11
113:17
ways 17:8,9,11 20:16
28:10 38:2 52:16
82:14 96:14 101:3
105:18
wearing 85:21,21
website 91:20 107:13
112:15,17
websites 88:22
week 19:10
weigh 15:16 17:11
61:13 105:14
weighing 52:18
weight 53:9
Weiss 26:15,21
welcome 3:1 8:7
welfare 20:11
well-reasoned 70:22
went 115:14
weren't 57:21
White 86:2 107:7
wholly 60:4
Wide 5:7

widely 54:14
widget 92:20 98:7
Wijesinghe 2:2 3:9
12:22 13:16 23:1,2
52:19 57:11 58:10
wildly 81:14 101:12
105:21
willing 32:17,19 39:9
window 11:11
wish 19:11 48:19
withdrawn 57:22
wonder 19:9 22:11
wonderful 60:12 75:13
103:2

words 26:11 70:8 87:15
work 9:13 13:11 16:13
25:16 30:8 33:12 34:2
41:15,19 47:3 59:16
86:1 91:17 113:17
workable 35:21
worked 14:7 63:16
workers 95:17
workforce 13:11
working 5:21 30:6 46:8
49:19 65:5 107:6
111:2 114:12
workings 4:17
works 47:5 56:21
106:15
world 16:9,11
worse 22:10 28:7 51:21
87:15,16 99:19
worth 23:14 30:11
104:9
worthwhile 38:2
worthy 88:11 106:5
would-be 38:3
wouldn't 35:10 51:8
82:6 98:13
write 32:17,20 33:6,19
34:9,17 39:10 45:4
writing 34:1,11,18 38:3
written 108:4
wrong 5:12 36:1 109:5

X

X 87:16 109:11

Y

year 5:20 37:4 46:8
54:19
years 5:22 55:10 64:16
65:3 79:14 87:17,18
YouTube 26:5

Z

Zero 92:8
zoom 21:19

0

1

1,000 57:17
10 3:5
10,000 32:12 53:12
100 78:10 92:9,9 100:21
111:17
100,000 67:16,20
113 3:22
1159 19:8
12866 40:15 47:17,18
13563 47:18
14 3:7
14,000 13:7 45:8
15 12:15 13:13 40:11
48:10
16 95:7
1800 1:10
198 69:14
1980 14:6

2

2 2:4 3:13 63:2
2/3 31:4
2:00 1:10
2:01 4:2
20 5:19
2002 54:16
2020 1:7
22 23:19
221 5:3
23 3:9
25th 114:13
29 3:11

3

3:57 115:14
30 1:7 20:6 44:3
30,000 21:19
30th 11:19 114:10
360 102:13

4

4 3:1
41 3:12
45 78:10
47 31:2

5

542 69:13
55 78:10
58 3:13

6

6 3:3
65 3:15

7

73 46:8
75 3:17
75/25 69:14

8

8 3:4
85 3:19
87.1 110:14

9

90 44:22
95 3:21
99 81:4

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Mass and Fake Comments
Public Meeting

Before: US GSA

Date: 01-30-20

Place: Washington, DC

was duly recorded and accurately transcribed under
my direction; further, that said transcript is a
true and accurate record of the proceedings.



Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

www.nealrgross.com