

Covid State of Play: 2021 Outlook and Vaccine Disinformation

January 13, 2021

- Hello everybody. And welcome to another edition, our first of 2021 of COVID State of Play. I'm Jonathan Zittrain, I teach on technology and governance topics and we do this podcast, Zoomcast together with my intrepid colleague, Margaret Bourdeaux, physician and public health expert who's been following the situation with the pandemic from its inception and together we try to figure out what's going on, what's gonna happen next and what we should do about all of it. And our thinking for today's installment is to spend roughly half the time, half an hour, on just canvassing where we're at and where we're going together, the two of us and then we'll be joined by Renée DiResta who has done substantial research on the dynamics, sources and interventions around disinformation and is gonna talk about that, particularly with respect to vaccine, dis and misinformation and how that's going and what might be done about problems there. So let's start just, Margaret, we have our conceit of just saying it's kind of word or phrase, we're all tired, it's been a marathon. Tell us where we're at. What's the state of play for COVID 2021 January?

- Oh, well, you know, I always look forward to that question and dread it at the same time. I look forward to it because, you know, it's a chance to acknowledge that time is moving forward and things are changing. And it's also in dread because, you know, obviously we're all exhausted and this has really been a much more significant drawn out, harmful, destructive, horrible events than I think when you and I first met, I think either of us probably anticipated in some sense-

- Just real quick, it feels like on the side of maybe we've turned the corner. We now actually have three, at least approved and functioning vaccines around the world, or maybe borderline third approval here in the US, so now it's just sort of the block and tackle mechanics, but you know, light at the end of the tunnel sort of thing. And then in the other column is the fact, maybe not incompatible with it that the yesterday the country recorded the highest number of COVID deaths since the beginning of the pandemic and I guess we're on track to be doing 20,000 deaths a week which there were early comparisons to flu, in the beginning stages of the pandemic. I understand we have roughly 20,000 deaths by flu every year. So we're doing a year's worth of flu deaths every week at this point, so-

- Yeah, so, well you summarize it well. So the, the phrase that I was going to, I was going to say that I think it summarizes the state of play is race against the clock. You know, can we reach herd immunity through a vaccination before hundreds of thousands or even 1 million Americans die of COVID and that's the state of play in the United States.

- Okay, can I just asked about that front then one dimension of the race is just to try to get it under control before an unconscionable number, of course, we're already past that, when

unconscionable number of people die, another way maybe of conceiving of it, especially with all the word of different strains floating around, some of which are substantially more transmissible or not, it seems innately more deadly but of course more transmissible means more deaths. Is that also a form of a race against the clock strains?

- No question. Yeah, so you know how I'm sort of thinking about it is on one corner you have team US humans, and then the other other lane, you have a team COVID and we have some good things going for us over on team US human, number one, as you mentioned, we have vaccines, I mean, sort of a remarkable feat. We have vaccines that have been so rapidly produced. Really, I think we were celebrating the anniversary a couple of weeks ago of the, the publication of the genome of COVID one year ago. And now we have two vaccines that are available in this country. Now I'm saying vaccines very carefully, because as we've said over and over again, the vaccines have never saved a single life, only vaccination, only vaccination, it's the tion that matters, it's the implementation, so-

- Vaccinated people, rather than something in a bag.

- Exactly, you have to get the vaccine in the arm in order for it to be lifesaving.

- And just given the very first invocation of vaccination here, really good question already before us, which I'll convey, which is, do we know yet how much the vaccine prevents the untoward symptoms up to and including death in somebody who's received it with really good effectiveness, say up to 95% versus it prevents people from themselves continuing to transmit it, even if they've been successfully vaccinated? I know there's theory on that. When would we know that, I guess by revealed numbers once vaccinations happen or?

- Yes. So that's right. So, so technically speaking the only data that we have is in regards to how well does the vaccine prevent symptomatic disease, okay. And that was how they did the phase three trials, whereas they only tested people when they had a symptom of COVID. They only tested them to see if they were infected with COVID when they had a symptom of COVID. So they weren't routinely testing people who had the vaccine, just, you know, every three days to see whether they might've had an asymptomatic case. Okay, so, so we don't, we don't know that answer. And the, there is suggestive evidence that indeed it is, we do know that when people get the vaccine, they do have what we call neutralizing antibodies against COVID. So that's good. And we know that, and we think that that is going to mean that if you have neutralizing antibody, that you are probably less likely to have symptomatic disease. But we don't have that key piece of data yet to absolutely prove that it, you know, essentially can be a carrier of COVID even if you get the vaccine. So, so that data is being collected, you know, by the vaccine manufacturers and pharmaceutical companies but it will take longer to come out and we just don't have the luxury of time to, you know sit back and wait for that. So basically what we're saying is get the vaccine but still, you know, in an abundance of caution, you know, still wear a mask and practice social distancing. I don't think that's, I'm hopeful that we'll get some of that data really soon, you know, within a month that we can be able to see, but that that's that's where that debate is, is, you know, how much does the vaccine protect? And

there's some, I mean, there's some cool immunology behind that, you know, and there's some cool of, you know cool science discussions around it, but I'm optimistic. Let me just say this. My, I think it's, I think it's not a safe bet but it's a good bet that we are gonna see some public health benefit in terms of, in terms of decreasing transmission from those who've gotten vaccinated.

- So back to the race against the clock what does team human have going forward and what does team virus have going forward?

- Okay, so team human has vaccines, which is awesome. And the other thing we have going for us is we do have a non-vaccine public health strategy that is pretty good. Now, again, we have the strategy, we don't necessarily have the implementation of that strategy in our corner but the non-vaccine public health strategy that we have sort of landed on is what I like to call again, the three-legged stool. Okay, so each leg of the stool is a different, different component of the overall strategy and all of these components combined, you know, make up the three-legged stool. You have to have kind of all three in order for the stool to stand up. I, and so just to review, I know we've we've talked about this before but one leg of the stool is environmental modifications. And actually just say that these three legs of the stool or are the backbone of any strategy, any public health strategy in addressing any outbreak of an infectious disease. So one leg is you have your environmental modification strategy. We know that COVID is spread in droplets and droplets travel far, further in indoor spaces. We know some of the things that we can do to separate people out and create barriers in indoor spaces. We know some of the things we can do to make the ventilation and the air filtration and the humidity of indoor spaces safer so the virus doesn't transmit as readily. So those are some of the environmental modifications we know, in the second leg of the stool is population-based measures. These are the things that you ask everyone in a population to do. We know that masks in this case are pretty effective. I mean, far more effective than I thought they would be at the beginning of the epidemic. So, you know, masks are fantastic, social distancing does work, so that's great. And then the third leg of the stool is contact tracing, and contact tracing as we've talked about before is sort of a four-part process. But the idea of contact tracing is that you're identifying individual chains of transmission and interrupting them. So you're figuring out who's infected and keeping them away from others. So they can't transmit the infection. In order to keep from transmitting and being in contact with others, you know, they require support. They require support to be an either quarantine if they've been exposed or an isolation if they're actually infected but are not in a hospital. So we have those three components and you know, they work when we use them. The thing that I've not talked about as much in that public health strategy, but I think it's really important to say, is, you know, the three legs of the stool are really important but also the top of the stool is really important. And the thing that holds all of them together and I've started to call the top of the stool public health intelligence capability. That's, that all that means is that you have the ability to understand where the infection is spreading, the context in which it's spreading and the ability to see if your mitigation efforts are working. And that, that's probably been the part of the strategy we've struggled with the most, we've really had a hard time, you know, as you and I have discussed getting testing done, diagnostics done, so we understand who is infected, We'd had a really hard time putting together the data to do sort of cluster investigations where the disease is spreading, but, you

know, we're really building that out. So that's, that's team human. We have, we have vaccines and we have a public health strategy that we feel comfortable works and we can refine as we, as we go forward. So that's team human. Team COVID, this is what team COVID has. Team COVID has a couple of things going for it that are significant. One, it is a disease that can spread asymptotically. And that is really a bummer for team human because other diseases and outbreaks like Ebola, Ebola, you just not gonna get it from an asymptomatic person. Not only that, you're not gonna get it from a person who's early in the course of their illness. So it's really at the end of the course of their illness that they are infectious. The same thing was true of SARS-1, the SARS viral epidemic that came out of China went to, you know, Toronto had a huge problem in Ontario, it was really infectious at the end of the disease course. So it was really a matter of infection control in hospitals. That's how we ended SARS-1. COVID has this great ability to spread asymptotically and that's, that's a nice capability of you COVID. The other thing-

- It is just on that front, just to be clear, and most of the asymptomatic spread turns out to be pre-symptomatic, that it is somebody that ends up feeling lousy later, rather than the small number of people that never feel lousy at all even though they went through a period in which they were contagious.

- That is a fantastic, yeah, fantastic reminder. The majority of people who get COVID do have symptoms at some point. So, that's, that's helpful. It is, it is true, it could have been where you just had a lot of, you know, complete asymptomatic spread in totally asymptomatic people for the entire course of their illness that does happen. But it's, it's unusual

- And just while we're at it, because it bears so much on a huge and ongoing debate, which you can tell me if it feels any more settled down than it has been before about the schools and opening up the schools, if there are people more consistently who are asymptomatic the whole time but possibly still transmitting, it'd be kids. And I'm just curious, do we have any better insight now into how much schools might be a hotbed of transmission among a bunch of kids, they go back home spread it to their parents, et cetera, or is the fact that they tend not to show symptoms or severe illness mean that they're less transmitting?

- Yeah. So I don't, so that actually relates back to what I was saying about public health intelligence. And, you know, I'll tell you a story. So, my quick answer is that, unfortunately we have not put ourselves in a position to have the public health intelligence capability to study where clusters are occurring. And I'll, so let me tell you a story. So, the fact is we still don't know and I'm extremely frustrated by the fact that we just don't have good data to be able to say one way or the other, this, yes schools are hotspots or schools are not hotspots. And it's something that I'm extremely interested in leaning in on. Okay, so I'll tell you the story. So in this, as I'm gonna change a lot of the details of the story, because you know, it's drawn from a real experience. But, so let's say we recognize that there is a restaurant, we'll call it restaurant X. And we noticed that two people in the contact tracing program that are being tracked ate at restaurant X and on the same night and they're both positive for COVID. We don't exactly know when they got their test, but we just know that they were there. So, okay, we go and

investigate a restaurant X on those nights and we look at everybody that came into restaurant X, and we find out lo and behold 2/3 of the people that dined in restaurant X on Thursday night are COVID positive. Well, we present this data to the restaurant owner and the restaurant owner says, it's not my restaurant, nothing bad. They didn't get into my restaurant. Okay, what happened was COVID is really the, the rates in the community are very high and it just happened that, you know, the 60, out of the hundred people that ate at my restaurant that night, you know, 60% of them just walked in infected. Okay, that's one theory. Another hypothesis is when we said, oh gosh, you know, it seems like a lot of people in your restaurant might've gotten COVID, the waiters that worked in the restaurant on that night went out and got tested and sure enough, one of them was positive. So another person looks at it and says that waiter is the one that was, you know, asymptotically spread it to all those tables that he worked at that night. And that's hypothesis number two. Hypothesis number three is, hm, you know what, the people that are sitting in the opposite in this restaurant are actually 60 feet apart. But the restaurant owner, in order to kind of feel like she was addressing a ventilation, set up a lot of fans around the, around the restaurant that blew air from one side of the restaurant over to the other. And I think that this is a problem, essentially a ventilation where the index case gave, that walked into the restaurant or patron on to the restaurant, gave everyone else COVID because of these fans. So answering that it's really important, right. I mean, answering whether it's the it problem with the fans so that we can then make all of our indoor spaces a little bit more safe or is the answer testing all of your waiters before they go on shift with a rapid antigen test, or is the answer, you know, closing down all the restaurants, because, you know, that's where spread is, spread is occurring, or, you know, giving them money to knock out a business until we're, you know, vaccinated. You know, right now it's everyone's guess, everyone's hypothesis in that situation is, you know, valid hypothesis but we have to put ourselves in the position to investigate which of those hypothesis is correct. And we can do that, that we can but we haven't put ourselves in a position to build out that capability. The way that you tease that out is that you need to do some genomic testing, some special testing of the, of the type of strain that each of the people who were infected in the restaurant has and then you can start to see how those viral strains are related to one another.

- So all of that is a leaf on the tree of a public health intelligence capability. And this seems like a tree that has not been watered and fertilized well, even since last March. And I guess it's just a question of, all right let's come up with possibly federal money to fund it and people willing to do it and kind of get going on it.

- Yeah, you know, I think that we didn't clearly see the need for it until now, and we didn't clearly see the need for it because we didn't really think about the disease spreading in clusters in the way that we now know that it does.

- Which gets back where KJ sons visit with us to talk about retrospective contact tracing.

- Exactly, exactly, so-

- I just wanted to note too, then it shows the value of the public health intelligence, both to just add to humanity's knowledge about this particular affliction and how it spreads, in which case, if you know, some other countries is good at it, we could learn their lessons from their daycare centers and restaurants. And then more specifically just to identify clusters and figure out them where you might need to intervene with a shutdown or isolation or court, sorry, quarantine.

- Exactly. So, so having that information, that's the top of that stool helps you strengthen each of the three legs of your public health response. It helps you do contact tracing better 'cause you know who to test. It helps you know how to modify the environment more specifically and it also helps you know how to, you know, what to ask people to do. I mean, if you're gonna say, look there's no way we can make this restaurant safe. Sorry-

- Yes.

- No way. You know, then you say, okay, please, don't go to restaurants and you try to compensate the business owners so they can survive.

- From it also looking back at Joe Allen's visit with us on ventilation and other environmental modifications, it just remains striking to me that there have been, there hasn't been, well, there's been a bunch of, at least from like my Instagram ad feed, a bunch of people being creative about marketing different kinds of masks. There hasn't been a ton of creativity around marketing environmental modifications, much less subsidizing them the way that you would subsidize, ironically, tightening up a home and sealing it more for conservation purposes which in Massachusetts say here, you get money from the state to do that. It's weird that the state wasn't saying, okay, here's an easy path by which to get and help to fray the costs of outdoor tents with heaters in them. If it turns out that that form of environmental modification actually helps.

- One of the things that really frustrates me is, you know, a lot of people are like, well, is your leader, you know, following the science? I'm like, well, I mean, yeah, but we're also, we're just not doing the science. I mean, to follow, you know, part of part of following the science means doing the science. You know, so that's right. I think the other thing that I worry about a lot is that Americans will, Americans we have a really tough relationship with public health and what we think public health is. Basically we think public health is a vaccine and that's great. Vaccines are wonderful. And I'm really excited about the COVID vaccines, but it's not just, it's not just a vaccine. In fact, most of the epidemics that humans have experienced are controlled with not vaccines, with other public health measures. Like I said, each of these legs are the three-legged stool. And so when Americans do pay attention to public health the other thing that we tend to think it is is asking people to, is just the population-based asks, that one leg of the stool. Like, you know, wear a mask, you know, wear a condom, don't, you know, don't travel and you know, it's all about the individual's choice. It's like it's a DIY kind of enterprise and that gets, we always like to criticize one another. Oh, you didn't do it right, you know, this brought, it brought, you brought this on yourself. Now you're sick because you didn't follow this advice and now you get, you're getting what you deserve. And I think that that's a core sort of

pathology around how America, well, kind of thought, I mean, it's one way to think about health and healthcare, you should have access to healthcare, I don't think it's doing us any favors. I think that idea of health, healthcare and public health is being a sort of individual responsibility instead of a collective security, collective enterprise, is something that we just, we have to, we have to move toward, I think if we're going to be able to protect ourselves from this type of threat, from COVID in the short-term and these types of threats, you know, in the long-term which brings up other thing I really wanna talk to you about, I'm anxious too. So, you know, the big thing that COVID has going for it in the United States is really a mirror, how Americans have, have the leadership and the ways that we have as a society have sort of tackled the outbreak, has been to my eye, quite unfortunate, and I do wanna sort of shift gears here and say I was reflecting on this in particular last week because I actually did have a very harrowing experience. I was in the Capitol last week, with my sister who is a new Congress member who won her election for Congress, she's a representative from Georgia seventh congressional district and I went to Washington DC to watch her get sworn in to Congress on Sunday. But I ended up sticking around, I think everybody was expecting there would be some kind of trouble in the Capitol last Wednesday, and I ended up kind of sticking around. I didn't sort of have to say it wasn't quite as prepared as I wish I'd been for what, what unfolded on Wednesday which was I did join my sister in her congressional office. The office building is attached to the Capitol through a series of hallways and tunnels, and, you know, I was there when, you know, when the Capitol was attacked and, you know I was fortunately safe, we were all, you know, safe, in general, I would say, I worried truly for my life for about 30 minutes when the Capitol building was breached and there were thousands of extremely angry and violent attackers coursing through the hallways, but, you know, in the moment, so then, then we were in sort of lockdown for about six to eight hours, kinda in the dark there with phones on silence, just watching the TV and hoping that nobody came for us but it gave me a good long a set of hours there to think about, you know, where we are as a country, both with respect to our political leadership, but also, you know, I think it does bear on the pandemic and how we've responded. And I think the particular moment that I would draw from was when I thought, gosh, I'm gonna be, and my sister are gonna be dragged out in the hallway and executed right here. And I was thinking how do I negotiate or talk to people who, you know, seem to really their starting point here is that I am a satanic worshiping pedophile. You know, that's, that's the starting point of, you know where some people are being grounded. They believe the election was completely stolen. They're believing, you know, all sorts of things that they're hearing, you know, from their elected leaders and also from wherever they're getting information from. And it, and it really struck me that, you know, the big challenge here is like, gosh, how, how do we come up with, you know, a shared understanding of the world? Now we can, I don't like the term shared reality because reality is reality, but, you know, a shared understanding of the world so that we can, so that we can work on problems together. I mean, it's very hard to address an epidemic when your leadership has essentially been saying there is no epidemic. This is a, this is a, you know, a hoax. And the other thing I sort of was musing on as these hours ticked by was that I sort of wondered if people, the public health measure of basically keeping people indoors, has sort of shifted, maybe exaggerated their interactions online. You know, and maybe it's in the of itself is that they're coming into contact with more sort of content from the internet, they're living more of their life on the internet. They're finding more community on

the internet because of this sort of public health approach of, you know, people not going into work or people, you know, really radically changing the way that they're interacting with their, you know, bricks and mortar society. And I thought, gosh, well maybe this is really a radicalization process that has actually been caused by a public health response to an epidemic. And I thought, you know, the person I really wanna talk to about that if I make it out of here alive is Jonathan Zittrain So I was looking forward to our meeting today.

- Yes. That's quite a windup for a question.

- Sorry.

- And of course, first, just, you know, I'm in awe of your employees and grace and ability to kind of take up the mantle again including inhabiting your professional role in trying to make progress on this. And that's a literally traumatizing extreme. You would think zero times in a lifetime experience that you just described and your point that that is an experience that is now something that is not uncommon, which is extraordinary that not only are we talking about thousands of people within the Capitol on the receiving end of that but across the country, in their respective roles. I mean, it isn't just January, 6, you have leading public health officials resigning because quite reasonably, they feel like it's not worth it to risk their families and their own lives trying to do a job that, you know, requires trade offs and the hard choices, and does both following the science and then applying a set of values and trade-offs on top of that. And I think also within your question is the really astute observation of, this kinda gets back to team COVID appears allied with team disintegration of the cohesiveness of an imagined community where you've got, just as you were saying, a bunch of isolation among people. You've got, as has been pointed out before, the really the direct inaptness of the phrase, social distancing is physical distancing is not social distancing, it's physical distancing, it's a physical process you're trying to interrupt but those of course are intertwined. And if you pass people on the street the idea that you should cross to the other side along with that comes, don't even really look at them. What if photons carry it to. I don't want it entering my eyes. You know, that's surely, to what degree I guess remains to be measuring but surely a piece of of how in the absence of affirmative ways of reversing the entropy, you get a decay of the basic bonds of cohesiveness that when you need a public health response it says we're all in it together. You might be asymptomatic but you could be throwing it to others. And the initial story, I understand maybe since changed, maybe this is actually the second story, not the initial one but now we're into the third of masks, primarily prevent you from transmitting, regular cloth masks, more than they do preventing you from getting it. But that means you to wear it is a noble thing. And that's against the backdrop, you mentioned leadership before and you pointed out that, you know, kind of a denial of the degree of severity it was the president who said, look, how many flu deaths we have last year, look how many COVID deaths we had this week, what's the big deal, multiple times. But also just, I think back to the challenger explosion and the speech that President Reagan delivered written by Peggy Noonan quoting the poem of having slipped the surly bonds of earth, it was a collective horror, a tragedy, one that I was a kid and it was seared upon me as one of the signal, memorable events of my childhood. But part of the memory of that event was the rallying of the national leadership to tell a story about resilience and say we

can make this happen. And it's just interesting for our president who has invoked a connection to Winston Churchill, to see absence of the kind of, you know, as historians have described it in Britain, it's just like, there were times when the Island appeared pulled together only by just this one, cigar chomping guys, iron will to say, it's just, we're gonna pull through it. And that maybe an example of some larger variables for which some of the technical dimension, which is really what you're asking me about, and as you can probably already guess given the time of the hour, but also because of the person I would wanna most to ask them about of it now, we're gonna call in Renée to rest that in just a moment. To then against that backdrop say what is the architecture, of the way in which we're communicating, particularly communicating during a physical isolation that might be exacerbating the shared reality. And I would also add to that, it's not just sort of a dispassionate pursuit of or confrontation with facts and different people are getting facts from different places, so they reasonably come to different conclusions, I have to say, I think there is an element of just direct hatred for its own sake that is latent within many, if not all of us, and that can be with the right tools, fanned and expanded and once it reaches a certain critical mass it can become itself something that's hard to race against. It can become consuming. And just linking back to your premise around the activities of the Capitol, the insurrection of the Capitol last week, I think maybe it remains just a direct intelligence question around is what we're looking at more described by, thanks to networking in part, you've just got Charlottesville plus, a group of people who by their own description would realize and say they aren't extremists. And you just managed to gather all of them in one place to wreak havoc or are we talking about a mask radicalization due to the factors we're talking about for which it's just the Charlottesville model is not helpful because you're talking about lots and lots of people and therefore an ability to take the wearing of a mask and turn it into a values issue where to wear it is to deny your patriotism, according to those who are against it, that there could be many, many people that end up somehow feeling that way. So unless you got reactions to that right now I wonder if this isn't the right time to bring in Renée, welcome Renée DiResta. Hello, hello. And either any reactions to any of the conversation Margaret and I have had so far and a bunch of stuff I suggested we put on the table and, or it would be great to hear just what you're seeing out there, what the usual suspect platforms are up to and how much you think it matters what they're up to, how much the not usual suspect platforms matter, especially as you see now masking platforming of some of the sources and the echoes of disinformation and all right, where's that gonna go and reform. And your sense, Renée, if possible of the trajectory of all of this. Is this something that, you know, the story about the vaccine is we have, we know what we need to do, now we just have to turn to doing it, or is this problem one that's much less farther along, well, it's not even as clear what to do and what would be effective and who should be doing it? I don't know, I'm curious Renée, what you're saying. And finally, just to echo one of the questions in our queue, to what extent do you think the major platforms are viewing this as a very specific case of disinformation around say vaccinations and they're gonna have a strategy around that versus what Margaret was linking it to, which is a broader problem of a failure of recognizing the shared reality for which lots of other forms of radicalization and disinformation are in play.

- Yeah, well, there's a lot there. So I would say the, just to answer the last question first, in my conversations with the platforms they are absolutely aware that this ties into the bespoke

realities problem and that there is a lot more happening here than just vaccine hesitancy. So to, let me, let me try to draw some, some through lines both with the work that I do at Stanford Internet Observatory and our various projects we had, we're just coming off of one called the Election Integrity Partnership which looks specifically at mis and disinformation related to voting. So very narrowly scoped around voting but narrowly scoped around voting really turned into looking at pervasive de-legitimization of an election over a period of months and the repetition to certain communities, not only from social media, peer-to-peer communications, but also the incorporation of a social as yet one more channel in the overall information ecosystem. So broadcast and social. For some reason, we talk about them separately. I would argue that that that's really a very kind of outdated way of viewing the social channel and that's because one of the active participants in the bespoke reality creation around the election, this de-legitimization preemptively laying the groundwork to claim that the election was stolen two to three months before election day, really involve not only the social sphere, but the way in which the social sphere pulls in information from the up-media ecosystem. So in the large form, that's Newsmax and OAN in the kind of mid-size format, that's things like influencers, the dynamic of ordinary people who have masked very large audiences because they speak to a very particularly targeted segment of a political affinity group and those folks, a mass, massive audiences, and then in turn serve as a kind of micro or demi media that then provide this conduit by which information is moving, sometimes from the bottom-up, from, you know, chatter and conspiratorial communities that makes its way up to the president, re-tweeting it, and Newsmax covering it, sometimes it goes the other direction, that kind of emergent media class putting out a conspiracy or de-legitimization claim that then in turn makes its way down into the echo chambers that that treat media as a trusted source. So a lot of the information dynamics here while we saw them applied in the context of the election over many months are also the exact same dynamics that are in play in the conversation around vaccination and public health and Coronavirus, you know, COVID response more broadly. And that's because the, again, that phenomenon of information making its way, both kind of bottom up and top down, the substance, the content is I think less important to understand as a pivotal driving force in this versus the dynamics, the ways in which that happens, the ways in which that happens absent what we would call historically, either journalistic ethics or gatekeeping, or the idea of us all operating in one reality because we're all seeing the same broad swath of media properties. Now we have a series of environments in which depending on which one you're in, your view of the world is distinctly different than someone else's view of the world who is not a participant in that particular chamber. And so the, and so we have the election integrity work that we'd been doing but those same pathways are very much in play for conversations related to coronavirus response and the COVID vaccine. And that's because a lot of the dynamics are also really reliant on the question of who people trust, who do they trust for their information, who do they think is telling them the truth, how do they process, you know, when we say something like science, you know, who do they think is delivering the science, how do they feel about authority figures, and then to what extent do they believe, you know, some of them are, there's a spectrum here, so some of them are reachable and then some of them have been immersed in broad spectrum conspiracy theorist groups that have been telling them for a period of years at this point that public health is lying to them. The, you know, the science is bought by pharma, etcetera, etcetera. And so these very old canards that have been used to

erode confidence in public health and vaccinations over a period of over a decade now, are simply being you know, twisted ever so slightly and applied to the coronavirus conversation.

- So to what extent, given the ecosystem you just sketched out, and that Margaret was averting to it, doesn't sound so far like anything you've said has been inconsistent with kind of Margaret's sense of the problem and the world we're talking about, to what extent is a kind of primed system of intervention that has to do with identifying particular atoms of disinformation and either deleting it or labeling or encountering, you know, putting friction on it's spread and maybe of sources too, how much does that seem like, all right, if we can just get that up and running and come up with a way that everybody would feel pretty comfortable with that it is actually properly sorting out the true from the false and its judgements are worthy judgements and transparent. How much does that feel like just fire that up as much as possible versus it's like, it's a drop of the ocean.

- So I think there's a, sorry, my kids are having a meltdown over an egg sandwich back there. The, I think the question of how do you reach people to counter, to provide people, to kind of maybe find the reachable, if you will, or deprogram the converted who are more in the, the deep conspiratorial chambers is a question that's come up over a period of years now. And that's because a lot of the information environment that I was sketching out, again it's content agnostic. This is, you know, the same infrastructure is used regardless of what the topic is, when we think about how to counter it, the challenge we face is that the current research suggests that, that simply, you know, throwing counter-programming links into those groups you know, on Facebook is, is not gonna do anything. One of the things that we saw in a very specific way is, you know, our team looked at the spread of the "Plandemic" conspiracy theory video, early in the, early in April, April/May timeframe. And what we noticed was that in addition to following how that piece of content made its way around the various communities, how it hopped from where it originated, which was the anti-vaccine communities to the Health Freedom Movement which is the more sort of libertarian take on the anti-vaccine movement to the wellness influencers, the QAnon communities is sort of Venn diagrams of overlapping human interests is what drives a lot of this stuff. If I am a member of an anti-vaccine group and I'm a member of a QAnon group and I see a link I like in my anti-vaccine group I'm gonna go and share it into the QAnon group. And then someone else who is in the QAnon group who maybe is in a, you know, Maga group is gonna go share it into the Maga group. And then the Maga group person who knows nothing about QAnon anti-vaxxers is gonna turn around and share it into their local community, you know, bulletin board type group, right. And so we see these pathways, this is humans, ordinary people are actively participating in the process, you know, serving as the conduits for this content. So when we talk about what platforms can do and what interventions can take shape, one of the real challenges is people who this content resonates with are motivated to share it. They think that they're helping their by sharing it. So there's a real kind of altruistic sentiment underpinning this idea that they have to help their fellow citizens understand the evil at play. And so with the "Plandemic" video we watched those pathways happen and then we interestingly did see it, there was about a two day delay before the fact checks came out because it takes some time to fact check the stuff. The problem is in that time, the video, the original video has a mass something like 8 million views. So not all of

those people are gonna even see the fact checks. But what we looked at was which of the groups that had engaged with the URL around the video itself, additionally engaged with the URL around the fact check. And the answer to that is they did get the video around the fact that it was shared into the groups but it was really shared with the idea that there was going to be, that people needed to respond to it in the negative. So it was sort of like fact checks were shared into the group and with the expectation to go and tell the fact checker how wrong they were. So it wasn't that they were, you know, so if you were to just go ahead-

- Yeah it's travels all the way down where somebody can quote something and say can you believe this crap, rather than saying I read this crap and now I believe it.

- Right. And so the challenge for the platforms is how do you intervene given that environment? So they have three, you know, buckets of moderation roughly available to them. There's remove, reduce and inform to use. That's the kind of policy framework Facebook uses and the others largely do as well.

- So you don't wanna state that again, 'cause it might not be familiar to many people. The frameworks.

- Sure, so there's remove, and that's what it sounds like. The content comes down, the group, the account comes down. Reduce is there's an algorithmic throttling that happens. So when the-

- Put friction on that,

- Yep, and that is intended to reduce its distribution through an ecosystem. And the third is informed, and that's where you get the labels or the interstitials, or it's, you know put either behind the little gray box or there's a request. You know, there's a note that says this content is disputed. And the various platforms kind of given their design structures do that in different ways.

- And we should just be clear on that. Like, another three-legged stool, but each of those does sure sound, just descriptively it's social engineering. It's just keep people away from stuff that is informationally radioactive by either removing it, reducing it or labeling in a way that says danger, radioactive like that's, and it just seems like given how persuasively you are making the case including in the case study of "Plandemic", the movie, that the dynamics are community dynamics, they are identity dynamics. They're about these people like me, they're good people, I like them. We send each other gifts, we talk about our kids. Like it is a community. To what extent can interventions that are simply about albums of information really, I'm sure this is just echoing your own observation about the dynamics here. I would argue there's different time horizons here, right. So there's short-term versus long-term. So in the long-term there's a lot to be done with regard to trust dynamics and, you know, scientific literacy, media literacy, for a vast, you know, education, if we wanna take it way back to the, you know, to the beginning. So there's a lot of different social problems. And I think most of us who study these dynamics are

the first to acknowledge that this is not a social media problem. This is not even just a media problem though, if we, again, treat social as a channel in that broader ecosystem, there's some interplay there. This is really, but again, those are long-term problems requiring very significant efforts to address. And also funding, of course, is another thing, right. You know, how you fund better media literacy education, etcetera. And then there's the other question, which is in the, in the very short-term, right, in the immediate here and now in the state of this pandemic, there were a lot of missed opportunities over a period of years that could have potentially, you know, interventions, policy interventions that could have potentially shifted the outcome. But the fact is here's where we are today. And so in the near term time horizon, the question becomes what do you do about a video like "Plandemic?" Do you, you know, as 8 million people are going to engage with this content and are going to be actively misinformed, whether, you know, the kind of originators the deliberate kind of disinformation creators or just the people who see it and feel motivated to share, the fact is in the immediate here and now something has to be done to, you know, to kind of minimize the potentially harmful effects of certain types of content. And what we've seen the platforms do, that I think is actually the right call, is recognize that, you know, as you've noted mis and disinformation have a lot of community components, but there are certain areas where the offline, the real world impact are sufficiently negative that there should be some additional attention paid. And what that has translated to is, you know, Google had this policy in 2012 they named it Your Money or Your Life, and it was a recognition that search results related to your finances or your health should be held to a higher standard of care. They should, you know, again, this idea that if you were searching, if you had a new cancer diagnosis and you searched for cancer, finding a bunch of juice fasts that happen to make their way through, you know, strategic SEO to be the top results was, it was a deep problem because people were coming there looking for information about how to treat themselves, what to expect in the course of their care and serving them a bunch of juice fasts and garbage, you know, is a pretty unethical thing to do. Interestingly, that view of responsibility, that view of the downstream harms of misinformation didn't translate through to products like YouTube which were treated as an entertainment place, right. So you, the idea that someone would go to YouTube to get their cancer information was not a thing that was really on the radar for a period of years until all of a sudden that had become where people went. And by this point, we had entered into the, the realm of kind of pervasive, problematic content as well as recommendation engines driving people in bad directions. And so again, there were, there were sort of off ramps that we didn't take leading us to where we are today. And this is where the interventions around remove, reduce, inform for particular types and pieces of content are, really all we have at our disposal.

- Which really poses, I think a complex question where among many of the technical types as they contemplate responsibility of platforms for the information they convey, they, there's been an attempt to say, well, let's see where they are in the technical stack. If they're a generic provider of bits they may have less responsibility to identify the bad bits and slow them down or stop them, or wrap them in a label. You know, Comcast shouldn't be having to figure out the dynamics of vaccines to know anything about anything. Whereas if they're closer to the top of the stack they are an application and a service with the tippy top being maybe something like WebMD WebMD has one job, like try to be accurate about matters around people's health and

lives. And then Twitter would be somewhere in between. But it does sound like if you make a generic, generative even service that maybe you intended for entertainment but it turns out to be an important political platform, can you avoid responsibility by saying, no, no I'm lowering the staff, I'm just making a generic service when there's kind of nobody else around to take responsibility as an intermediary. And I only pose this as a question 'cause it's challenging a lot of my previously held assumptions including the value of knowing where something is in the stack to determine its responsibility.

- Yeah, I would just, I find that, you know sort of tugging at a deeper question, also a question that sort of came up for me in this lockdown moment, where it was like, you know, it's not like people that are running through the halls of Congress or even people who agree with them that are not doing so, but are staying at home, it's not clear to me that they are there to have a reason to be. It's not clear to me that I can, you know, there's no evidence, and this comes up actually in the hospital a lot in pediatrics, the, just to tell a little story, I had a patient one time who ended up being diagnosed with Munchausen's by proxy. That's when a caregiver becomes convinced that their child is sick and they keep, and they do things to make their child sick to prove their point. And often you see that, I mean, in my experiments, experience, it's more the person, the proxy, the person who's making the child sick actually doesn't know that that's what they're doing. They just become convinced that, you know, their child is sick and there's some emotional feedback that they're getting that, that they enjoy from having a sick child. Anyway, in this case, this little child was brought into the hospital to try to feed, to try to feed them and see if they would gain weight. And of course, one of the possibilities was that the parent, the caregiver was starving them, was not feeding them. And indeed the caregiver kept saying, oh, no, nom this child is, you know, they have all these allergic reactions. I can't possibly feed them these things. So we ended up, you know, very slowly with epinephrin at the side, you know, feeding the child the things that the parent claimed were, was triggering an allergic reaction and lo and behold, it's fine and the child gained weight. And when we had the conversation with the parents, when we called the Department of Child Protection Services and said, we are going to and inform the caregiver that's what we're gonna do, the caregiver was of course, very distraught, in their mind they were doing everything they could, you know, to do well by this child. But the thing that the social worker ended up saying to the parent, which always stuck with me was she said there is no evidence that I can give you that will convince you otherwise. And that's why we're at this point. There was no evidence that I could give any of the congressional representatives or people storming the Capitol or people watching in support at home, that is going to convince them that the election wasn't stolen.

- Margaret, would you, your message, you know, tragic and just gripping story you just told would you describe clinically speaking, the psychiatrist describe that person is in the throws of a mental illness?

- Yeah, oh yes.

- And the next question then asks itself to what extent are we saying that this is mass mental illness?

- Well, I don't know that, but what I would say is that I'm wondering if when people are engaging online in conspiracy theory content and building community out of that experience, it strikes me that their goal when they are entering into that space is not to kinda learn the truth, right. And they're not really in that frame of mind. You know, somebody when they have a new cancer diagnosis and is going online to search, you know, they wanna really know, you know, what's gonna get them better. It's a very different kind of frame of mind and human enterprise. And it sort of this issue of entertainment versus, you know-

- Yeah, yeah, absolutely.

- Right, and just like people are storming the Capitol 'cause it's kind of an entertainment for them, right. I mean, it's a blood lust, it's a whatever. And I'll tell you that just to end what one other little moment from the, from the standoff and the Capitol that may suggest or lead toward something that I'm curious about exploring as a sort of remedy as well. When I became very frightened for that kind of 30-minute period, I really, I thought, you know what let's, and I proposed, I was like let's get up and leave. Let's take off all of our identifying information, open the door, blend in with the crowd, you know, and leave. And, you know, I thought, and the reason I thought that was because I thought, gosh, I don't wanna have the confrontation when they come where they break down the door and find us hiding in fear behind it, that will almost certainly lead to a violent outcome for ourselves. Anyway, I was, we started packing, we even thought, okay, let's pack up and do this. Well, right around the same time, some of the other members there were also sheltering in place, we're on a text thread, you know, with my sister, and in particular there were two black women who were newly elected to Congress who were also texting on this chain and they were saying, you know, I mean, they were very fearful and they're like we're never gonna see our children again, we're we're not gonna, you know, this is the end. And you know, of course it struck me, right, that, that they were not considering getting up and melding into the crowd. They were not going to be able to do that because they were black. And you know, that the moment passed, we ended up not, not leaving, but then the most sort of violent part of the entire evening from my perspective was then when we had to while we're all still shaking from fear, you know, listen to the concerns and the, quote, outrage and the balloon juice of the Republican members of Congress arguing that the election in fact had been stolen. And we just had to sit there for hours and just listen to them. And I thought, you know, this is the act of violence that is not somebody shooting you but it's still violent, right. It's like you have to revolve around their concerns, their worldview, you're constantly in conversation with them trying to convince them of something they'll never gonna come around you. When your own life, and, you know, was in danger and the idea that your children's life is in danger. And, you know, it just made me think like, really what the anecdote is for this is you having to answer to other people's concerns, you know, coming into proximity in a very real way with people who are, you know, struggling with a problem in a very authentic way and having to address them. And I was like, you know, I just, the marker of progress for me in the new year is how much of my attention goes to the problems of, you know, these black representatives of Congress and their constituents versus having to deal with, you know, the sort of pun intended here, the trumped up concerns of you know, of the folks that are speaking.

So I do feel like, you know, I guess the larger remedy that I would like to propose is like we need to have a lot more contact with people who, you know, are bringing their perspectives and their problems to the table. And somehow we need to figure out on-ramps for all of us to engage, you know, with them. Otherwise we're just kind of playing whack-a-mole with these, you know, crazy ideas that are presented to us to try to refute and we're kind of in this, you know, in the cycle

- And just also the, woven within that is to what extent is anybody in a position engaging with somebody else to separate between what you're saying is deeply, deeply profoundly mistaken, but I acknowledge that you earnestly believe it, and that on the basis of those mistaken facts we actually might be pursuing the same top level goal it's just, you know, huge gulf that might not be bridgeable versus this is an argument in bad faith. You don't really believe it. You're saying things that advance some other goal of yours that might just have to do with the laws or something, and how much that distinction matters either individually and interacting or in a policy private or public kind of interventionary way. Renée, I'm sure you have reactions to that. I know we're kind of at the top of the hour and I'd love to close out by first inviting any reactions you have Renée on the speed of the conversation. But also if each of you has a sense as a new administration, in the words of the president will be welcomed on January 20th at noon, federally in the US, what would you highlight respectively as sort of a top priority, if you think the federal government is a good locus to have a top priority here? Margaret, for, you know, shots in arms and that sort of thing, what would be the, the the best thing to underscore and Renée for the complex problems you've been following, is there some role for federal policy here? And I'm curious if you wanna close out with that. So I don't know, maybe Renée, you wanna go first-

- Sure.

- Any of that?

- Yeah, so, no, I was listening, I was just thinking of a meme on Twitter, bad faith or brain worms, and this is the, you know, the kind of salty way of alluding to the fact that some of the people, you know, particularly a few senators chose to pander to those who continue to perpetuate this nonsense about stolen elections in very, I would argue bad faith because they see it as a path to, to further continued power, unfortunately. And so that is a-

- Out of fear.

- Pardon.

- Or out of fear.

- Or out of fear, yeah. There's that the Churchill quote about dictators riding on tigers from which they can't dismount, right. And the, I think one of the challenges right now is the question of who is reachable. And this, this speaks to your question about what should the

administration be focused on. One of the dynamics, there was a paper that came out, I think it was, oh, gosh, I don't wanna get the institution wrong. There's a paper that came out recently that alluded to the fact that the anti-vaccine movement online was far better at outreach to fence-sitters to sort of normal groups, normal groups of people, women, mothers, wellness influencers and that they in fact, regularly prioritized that outreach and that they produced content for those people in the format that they wanted to see it, on the platforms where they were, sort of reaching people where they were, and that echoed my own experience in 2015, looking at how the anti-vaccine movement in California reached out to the fence-sitters and how really the battle was for the fence-sitters. It was not to deprogram the converted, it was for the fence-sitters. And that I think is where the administration needs to be focusing as well. There is a, you know, while there are extremists who are highly visible they are not the majority, they not, that's something that we consistently see as well and we have to prevent them from becoming the majority by ensuring that they are receiving accurate information where they are in the format that is, you know, that where they're most likely to be receptive to it from communities that they trust. I've seen black doctors on clubhouse recently doing just remarkable Q&As, they're staying on there for two hours, really engaging with the community. There's a lot of users on clubhouse who are kind of members of this constituency and so the black public health and medical officers getting on there to talk about the vaccine. That's the kind of thing, that sort of focus, not only on the science and the rollout and the vaccine itself but also on the recognition that the messaging component of this is just so absolutely critical to reaching those folks who are reachable.

- Got it. And that, again sounds too like a lot of work to be done at the local level, by lots of folks in the field, and maybe by the platforms. I didn't hear necessarily anything that a new Biden administration should jump to.

- I don't, I don't think it's, I don't think it's been well executed in the past to be honest. And I think that's, what's really the question, you know, there's, the CDC puts out material and certain formats that's scientifically reputable but it's like a, a PDF, you know, recognizing that the information environment, the way people expect to receive their information has changed and that blending that that, you know, information becoming part of the content consumed on platforms that were previously for entertainment is, you know, the recognition that this is where people are getting their information from now too, is just a part of, of how strategic shifts and messaging design have to, have to progress in a very immediate term.

- Got it. Margaret, fast.

- Yeah, I mean, I think there's not just one thing, but I I really love Renée that, that focus on which also chimes with the principal and child development, the fence-sitter is, you know, don't feed the trolls, you know, don't try to get into a back and forth on their terms of the sort of craziest element or the most extreme element, you know really come at the, the fence-sitters are the people you think you can reach but also I think coming at them in a very orthogonal direction, I mean, there's nothing like human contact, you know, there's nothing like a real exchange with another human being who has their interests at heart to, you know, that that

does move, move people. And that, where is that gonna sit? I mean, when it comes to back to the Biden administration I think that we are, you know, they are signaling they're gonna do a lot of things that I'm very supportive of, which is, hey, we're gonna really have to think about and put money into our public health system. I think along a number of fronts, some of the technical that we talked about earlier in the hour about building a public health intelligence capability and that's a sort of technical project. I think a lot of the, the vaccine distribution is gonna be a technical kind of project. But I also think that by, when we start to build out our public health enterprise in this country and reform it and build it in a different way I think really putting at the heart of it this issue of how it interacts with individuals in their moment of need and crisis. You know, is I think that the sort of the relational, societal kind of glue that it needs to sort of sit at the, you know, sort of be the thing that we built, the concept that we, that we build it around. And I think that Renée, your work has really sort of started to really lay out what that looks like at least, you know, on the, on the, on the media face, or really, really or the media platforms that you're discussing. So I really appreciate your insights today are giving me, making me feel better . Can do. Yeah, so we do have to, you know, hope that we make it through this, this next week and in a way that is, you know, puts us in a position to do that good work.

- Well, I'm so grateful Renée for your taking time to visit with us today and share what's up. And of course, Margaret, what a journey you've described just in the past week, and thank you for sharing that and for enduring what you are and rising above it. And we will continue our Zoomcast as this unfolds. I also just wanna thank Superior Carter, Will Marks, Lydia Rosenberg, Ruben Langevin and Chris Small, who helped organize our COVID State of Play from soup to nuts last year, and now coming into this year. And thank you all the attendees for the questions you put in for those watching later. We've surely gotten a bunch of stuff wrong, we'll do our best to own up to that and adjust in future episodes. But it's the middle of January, 2021. and here amidst the numbers that we see and the challenges in front of us, here's to a better 2021 and one of vibrant communities that together create our imagined community of America wanting to beat back any challenge that comes to us and come out the stronger than we're.

- Thanks, Jonathan.

- See you next time.