

ISOJ 2020: Day 2

Journalism in a pandemic: Covering COVID-19 now and in the future

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- [Kai Kupferschmidt](#), contributing correspondent, **Science**, Germany
 - [Helen Branswell](#), senior writer, infectious diseases, **Stat News**
 - [Alvaro Pereira](#), reporter, **TV Globo**, Brazil
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Mallary Tenore Hi, everyone, and welcome to ISOJ online. I'm Mallary Tenore, associate director of the Knight Center for Journalism in the Americas. Before we get started, I do want to just give you a few reminders. One is that we are interpreting this panel into Spanish. And so to access the interpretation, just click the interpretation globe in the meeting options down below and select the Spanish language channel. I should also note that we are live streaming this panel onto YouTube in English and Spanish, and the links to those YouTube channels will be in the chat feature of Zoom. So if at any point you have any technical issues with Zoom, just tune into the YouTube channel.

Now I would like to introduce our next panel titled Journalism in a Pandemic: Covering COVID-19 Now and in the Future. I should mention that in May the Knight Center held four massive open online courses in English, Spanish, Portuguese and French that shared the same title as this panel. The courses collectively attracted about 9,000 students from 162 countries, and so it was clear to us from these courses that journalists were really craving reporting resources and a peer-to-peer learning community to deepen their understanding of COVID-19 and how to best cover it. So with that in mind, we're delighted to be continuing the conversation and expanding the learning community with today's panel. Now, I'd like to turn it over to Deborah Blum, director of the Knight Science Journalism Program at MIT, who will be moderating today's conversation.

Deborah Blum Why it's such a pleasure to be here with this amazing group. So today's panel is about covering a pandemic from the unique perspective of being right in the pandemic. And with me, I have three really outstanding infectious disease reporters from around the world. My name's Deborah Blum. I'm director of the Knight Science Journalism Program at M.I.T., which is squarely in the COVID-19-infected United States of America. I have with me Vidya Krishnan, who is a journalist from India, Alvaro Pereira Jr. from Brazil, and Kai Kupferschmidt from Germany. Their bios are online, so I won't go into them in depth. But welcome. We're excited to have you here.

I want to mention briefly a couple of statistics from now about COVID-19 that I pulled off the IBM tracker. So as of today, Tuesday, the 14 of July, global cases of COVID-19 are over 13 million. The three countries that right now are reporting the highest number of new cases are the United States at 58,000 new cases, Brazil at 20,000 new cases, and India, I should have had that in a different order, at 38,000 new cases, and Germany had zero. So

to give you a scale of where we see the infection at this moment, I should mention that the U.S., Brazil and India are the top three countries reporting new COVID-19 infections at the moment. And the fourth is considerably below any of them, and that's Russia at about six-and-a-half thousand new cases.

So clearly, we are not in a case where the pandemic is under control. And we are in a case where reporters who cover the pandemic are really on the front lines of trying to figure out a fast moving virus and the fast moving state of science itself. And I'd like to start this discussion by going to you, Kai, on a question that we talked about earlier, which is the issue of alarmism, and that is as journalists and as science journalists, we're really trained not to overstate the case or breathlessly announce anything. At least we hope we don't. And yet, in this case, did we understate, by virtue of our training, and should we have somehow rung more alarm bells? I don't know the answer to that, but I'd be interested to hear what you think.

Kai Kupferschmidt Thanks, Deborah. You know, I don't have an answer either. It's something that I really struggle with. I thought a lot about it in the last months as this has gotten worse and worse. And, of course, you know, people like Helen and me also wrote about it very early on, and the question is, should we have written about it in a different way? And I think it's hard to kind of figure that out when you're still in the middle of it.

There are two issues, I think, that I keep coming back to that stand out to me. And one of them I call kind of facts, not fear. I don't know if you remember, but facts, not fear was one of the early slogans by the WHO, and I think it really encapsulates something that's very kind of also to our science journalists work. Right. It's this idea that we all have. You know, we react emotionally to things, and we kind of are trained to more or less kind of take that out of the equation as much as we can. But I think we have to realize that it's fundamentally a flawed dichotomy. I mean, there are facts that should scare you. There are facts that should make you afraid. And I think maybe that training that we have as science journalists, in this particular situation, kind of worked against us there. And I think there's kind of the individual case, right. We've all had this training, and we think about things in a certain way. And then there's kind of a systemic thing. Like I don't even know how to put this into an article. Like at least at Science, where I work, we write articles in a certain way, and I'm not sure, you know, how to ring an alarm bell in a sense, if I felt comfortable doing that.

And that's one reason that I've kind of realized that I'm very different on Twitter. Like on Twitter, I have a certain freedom to say, "You know, listen, this really worries me, and we should all take it seriously." It's kind of hard to just go out and just say it in this very conversational way in an article. So that's something that I keep coming back to. I think there's something there that at least in the future, I'd like to try and get some of that into how I write articles, but I think that's kind of a tough thing to do, at least for me.

And then the other thing I keep going back to is just this idea, let's call it "now versus then." I mean, when we're talking about a pandemic, we're always talking about the future. Right. We're ringing the alarm bell about what could happen in a way. And so on the individual level, of course, there's this problem that you might be wrong. I mean, one of my editors, I won't name names, but one of my editors like saying, "You know, there are some science journalists who correctly predicted five of the last two pandemics." And I think that's true. I mean, there are people who would tend towards this kind of alarmism, and most of the time we tried to stay away from that. And then at the same time, one thing that really stuck with me as well was Helen did a panel in I think it was the Aspen Institute. And I think, you

know, Nancy Messonnier, she really put this question to Fauci and others, and she said, "You know, you're saying this isn't really dangerous right now. But, you know, this looks like this is not going to be contained in China, and this looks like it's going to be a big problem." And I think it was, Nancy Messonnier who answered something like, "You know, the thing about the U.S. these days is there's only so much you can worry about."

And I think something very true in that is that I like to think that if I write a really good reasoned article, it might get people to pay attention. But there is this question, do you want to be a fire alarm that every now and then rings even though there's no fire, or do you want to miss when there's actually a fire? If you think about the question that way, it seems very obvious. But of course, systemically, especially in the U.S., it feels like all of the fire alarms are ringing all the time. So I kind of think, what if everybody has tinnitus at this point, and my reasoned little voice, they can't even hear it.

And so these are kind of, I think, for me, these two kind of questions that I'm still grappling with, and I think it's very hard to know. I mean, on some level, what gives me some comfort is the idea, I mean, it's going to sound a little bit ironic, but, you know, it does give me comfort that even when it was abundantly clear that there was a huge problem, a lot of countries still didn't react the right way. So in some ways, you know, no matter how loud we would have rung the alarm bells, it doesn't seem like people were going to do the right thing anyway. So maybe it doesn't make much of a difference, but I sure as hell would like us to do better next time.

Deborah Blum Yeah, I mean, you've raised a couple of really interesting questions, and I actually want to push you on that point about facts, not fear, again, in a kind of fast-moving science situation. But, Vidya, do you think that if there had been major journalistic alarm bells rung in India, it would have made a difference? And I'm asking that in part because it seems to me that journalists and people who are trying to get the story out have had a hard time in India, and there certainly have been reprisals on attacks against them. So if you could address that question, that would be great.

Vidya Krishnan I don't think the issue with the Indian pandemic response is lack of information at this point. In fact, straight off the bat, India reported its first case on the 30 of January. A day before that, we have a Ministry of Traditional Medicine, and the day before India reported its first case, our ministry put out information with a treatment prescription to prevent coronavirus cases. So straight off the bat, the issue that was going to be with the Indian government was basically about anti-science decisions that they are taking. And I get a lot of criticism for being anti-national, which is the world in India if you question the government.

And as I said, I spent a lot of time thinking about, "Am I being alarmist?". In my country, a lot of people trust the government. They are not entitlement literate, and they trust the government to give our correct information so communities can protect themselves. We saw this with the polio campaign. We've seen this with massive campaigns that have been found in India where people are not educated, trust the government to do the right thing, and the government kind of does the right thing, or in the general vicinity of the right thin.

You now have a right-wing government, which the first thing they did when they came to power back in 2014 was set up this very Ministry of Traditional Medicine. And over the last six years, traditional medicine like homeopathy and ayurveda has been mixed up with religiosity. And then came the pandemic. And if you question anything at this point, they accuse you of being a traitor. I was reading a column yesterday morning in which I was

shocked to find out that since March, 22 police cases have been registered against 55 journalists in India, simply for reporting the pandemic. I routinely get death threats and rape threats and social media trolling is something that is now a part of our lives.

And to circle back to this point of alarmism, I feel like in the developing country, as someone who has the privilege of being educated, I feel that there is some level of responsibility to call out shameful decisions that are being taken by politicians. Scientists are not even at the table at this point in deciding this pandemic response. And you see the design of it, and at this point, it has a hockey stick up, which is showing no signs of flattening. And I'm very concerned, but also I feel like six months in, it feels like we are in the fog of war. And it doesn't really make sense, and it's difficult to say anything with certainty.

But what I do know with certainty is that this is not an issue where the government doesn't know any better. This government has prioritized this response, and they are doing it despite the information they have access to.

Deborah Blum Yeah, that's a good answer, and it is a really, you know, can journalists save the world? You know, not in every circumstance, obviously. Alvaro, can you talk about this in Brazil? Because certainly Bolsonaro has gotten a lot of attention for his non-science based response to the pandemic, and I think it's also been very hard for journalists in Brazil to accurately convey what's going on in a way that might change behavior. And there is an interesting question, I think to some extent is even raised by Kai's point, which is that should we be the drivers of the change of behavior? It really should not be on journalists to set policy, and yet sometimes I feel in some of these situations, we're almost in that position. I wondered if you would address that in Brazil?

Alvaro Pereira Well, I think it shouldn't be the role of journalists to change people's behavior. But the way things went in Brazil, is that there was no one else to do the job. Just switching the phrase "it's a clean job, but someone's got to do it," and journalists had to step in, and especially Globo, the network that I work for, which is the major broadcaster in South America and which is very dominant in terms of viewership to this day, even with social media and all of that, ut everybody watches Globo. And I'm not talking specifically about the show that I work for, which is a Sunday evening news magazine, much in the way of 60 Minutes, but I'm talking about the daily nightly newscasts, our primetime newscast. I mean, in my view and I've read that written in newspapers, it came to a point, especially in the first weeks of the pandemic, where the anchors of our primetime newscasts sort of took the role of leadership, strange as it might sound, that we should normally expect from the government, from the president.

And the president a week into the pandemic, he goes on TV and says, "Well, this is just a little flu. It's not going to kill more than 800." I think 800 was the number that he mentioned. "Everybody will die some day. What can we do? 800 people will die. For example, if I got infected, nothing would happen with me because I'm a very healthy person. I used to be an athlete, and it will be like that with everyone else." So that's the kind of message that we are getting from our own government.

And it really came to a point where especially TV journalism, in my view, of course, I'm a TV journalist, so I'm biased on that, but it came to a point where people would look to us looking for leadership. That's that's my view. Even though Bolsonaro still has a strong base in society, like around 30% who will follow him regardless. "Let's everybody kill ourselves." "Yes. Let's everybody kill ourselves." But even though he still has a strong

social base, I mean, I think that we had a crucial role in trying to convey the right kind of information to the general population in Brazil.

I'm very nihilistic when it comes to journalism and the things that journalism could be capable of doing, but I think that for once we were necessary and we tried to do the right thing.

Deborah Blum And do you think you made a difference?

Alvaro Pereira I think we did, because if everybody followed what the president said, you know, we would be in an even worse situation right now. It's not that everybody is wearing masks and everybody is staying at home and reading everything and knowing everything about COVID-19, but I think we did a decent job. At least we tried, and we tried hard.

Deborah Blum And I think that that's an absolutely essential point. Kai, I want to go back to something and again, I might bring this up in a roundtable later, but, you know, earlier you mentioned the slogan of the WHO, which was "facts not fear." And the start of that discussion reminded me of one of my favorite quotes from the book, "The Once and Future King" by T.H. White, which is "shed light, not heat," which I've always thought was a good motto for journalists. Let's shed light, not heat. And the question is, do we sometimes need to shed both? Right.

But it's very difficult to argue facts over fear when the facts change is my point. Right. And so in this particular pandemic, we've seen WHO itself go back and forth on the wearing of mask, go back and forth on airborne infection. Right. And similarly, we've seen different statements from different laboratories. There was, and it was certainly amplified by the government of the United States that wanted to believe this, there was some early discussion about the fact that this was going to be a seasonal virus. And I believe our president said it would magically melt away in April, which clearly it has not, right. But when you're trying to inform your readership or listenership and they don't fully understand how science works and the process of science and the way things change, how do you best report on this ever-changing landscape of information? When the facts of yesterday may not yet hold up today in the same way? Do you want to address that, Kai? And I'd be curious as to whether the rest of you find that a challenge.

Kai Kupferschmidt Sure. I mean, so I think this has always been a problem in science journalism, right? I mean, to some extent, and working at Science I actually have probably one of the easiest readerships in that respect, because most of them probably know quite a lot about science, but in general, I think, we've kind of gotten used to this idea that maybe we can cover science a little bit like we cover other areas. So people tend to kind of leave out the caveat sometimes. And I think when science goes its normal, slow way, then it's not so obvious. I mean, we've had discussions about this, of course. Right. Like coffee is dangerous one day, and then the next day it's healthy, and then it's dangerous again. So there's always been this kind of single-study syndrome, right? This idea that people write about a single study and it goes one way and then another single study goes another way. And what we really want is kind of the balance of the evidence, like what does it tell us?

And in this particular situation, of course, these kind of single-study moments are coming one after another so fast that, you know, it's just going to be totally obvious to people and really confuse them, if you don't, when you're reporting it, always say, "So, this is preliminary. This is based on this data. This could change tomorrow." And of course, we shouldn't forget that we're in a moment pretty much globally, I think, where a lot of

populists have kind of used this idea of a fixed truth anyway. So I think this confusion at the moment, you know, it's kind of perceived in an environment where people are already super skeptical and feel like maybe there is no real truth. And, you know, this idea that they say one thing one day and another thing another day, that that's really been used. So if you then take a population that doesn't understand very well how science usually works and how it kind of like slowly, gropingly gets towards a better idea of the truth, then if you don't take a lot of care in framing that that way, then then you're going to end up alienating people even more. And the point is not that I think that people really believe what Trump says or trusts Bolsonaro, as much as they feel like, you know, everybody else is kind of not sure or lying as well, so I might as well go with the guy who is the more entertaining one or the more whatever.

So I think it's very important to see the context of the moment we're in. I mean, if you take a country like Brazil, which has done so well in the past in some public health issues, and if you look at how terribly they're doing now, I mean, it's not just a lack of leadership right now in this pandemic. It's the constant undermining of trust and a constant working against a consistent message, and that kind of reinforces this kind of nagging feeling that the populists have been exploiting anyway. And I think that's really where I kind of see us heading at the moment.

And I was very shocked for a long time about how terrible the U.S. is doing, for instance, given its resources, also like intellectual. Just the fact that 90% of the scientists I talk to are in the U.S. and some of the smartest thinkers I know are there. But that's not the point. If you don't trust them, it's just very hard.

Deborah Blum It seems to me the ball's in your court there, Alvaro. Do you want to address that kind of issue? Do you have what you think of as a science-savvy audience that you're communicating with? Do they trust journalists, or do you see the government undermining that trust? And one example, maybe it was a single study or a couple of studies, but to bounce back and forth from the U.S. and Brazil for a minute, our president went completely excited over a drug Hydroxychloroquine, which turned out to be really a bad idea. And I think you saw some of that in Brazil as well right? Could you talk a little bit about how that comes up, and how people accepted the role of journalists in trying to add rationality to the conversation? And then I'd like to go back to you, Vidya.

I think it goes both ways. As I told you, I work for our Sunday evening news magazine, which is an institution of sorts, which has a viewership of like 25 million every Sunday night. So in a country like Brazil, you can imagine that we are talking to people who are not, their scientific literacy is not that high in a country like Brazil, especially in topics as tense as this one, as complicated as this one.

The hydroxychloroquine thing. I did a very long piece about hydroxychloroquine, in which the Lancet article featured prominently. You know, this is definite proof that hydroxychloroquine does work. I spoke to a number of very important scientists in Brazil, who backed the Lancet article. A couple of days later, the Lancet article had a flawed database. What do we do with that? So what I did was another piece, as long as the first one, explaining how an article is put together. I even had a professor here of immunology to explain what a scientific article is, because there's a thing in Portuguese, maybe in Spanish as well, that the word for journal is the same word for magazine. Revista. So when you mention journal, people may think that the article came out as a story in the magazine with pictures of what was in it. So you have to explain all the time that it's a scientific magazine, as we say, in Portuguese.

So I did a story explaining what was wrong with the first hydroxychloroquine article, in which I had to explain what a scientific article is. And the person I interviewed about that, he made a very interesting point. He said, "Well, science works like that. The difference is that the comings and goings of science are now happening in public, and how that impacts an audience, the audience in Brazil, it's hard to say."

But again, we're trying not to hide our mistakes, and we try to be as transparent as possible. But if that undermines the public's confidence in science, it's hard to tell. My guess is no. I mean, the 30% Bolsonaro supporters, regardless, no matter what, they will remain like that for a while. But I think to the population in general, it is possible to try and convey good scientific information.

Deborah Blum I think transparency for science journalism is really an excellent idea. And when we sit around and we talk about how do we build trust in the journalistic enterprise, some of it is the transparency of what we do and explaining it. I hadn't thought about that issue with the journal and magazine, so I'm really glad you brought that up.

Vidya, there was a whole period where there were stories sort of glorifying India, maybe glorifying is the wrong word, but talking about India as the newest scientific technology powerhouse in the world and leading a lot of people to assume that this, in fact, is one of the amazing success stories in scientific literacy and understanding.

And I'd like to find out if you too see similar challenges in getting scientific information across? I'm curious as to despite the fact that journalists are under attack by the government, if they're generally trusted by the public with stories like this? And then I'd like to kind of segue from that discussion of hydroxychloroquine to drugs in general and access to drugs. And a good place for me to start with that, because India has indeed been a powerhouse in producing generics, right, in particular.

So trust. So, you know, I'm curious about trust, the receptiveness of the science literate audience, and what you're seeing in India regarding access to these kinds of drugs and the perceptions of them.

Vidya Krishnan So they came to power in 2014. And this attack on the free press, which Trump truly went global with fake news, which makes the media the enemy, that was, in my opinion, mastered by Modi two years before Trump. And he won the first round of elections constantly attacking journalists. He has intimidated journalists, sent lawyers after them, including the organization that I write for. And the thing is, I write for an English paper, and in a country like India, that is a very small, upper-class, privileged audience. And India is not one of those countries where people do not have scientific literacy. The tragedy of this time, is that we have all the skill that is needed to mount an attack on a pandemic in a low-resource setting. We have fantastic doctors who have a reputation all over the world.

And in this case, we just do not have a government which wants any kind of criticism. And especially if you're a journalist who writes in English, especially in my case, I write in English for the Atlantic and the L.A. Times, so you are not just a traitor, you go to an international audience and complain about the government. So the government basically focused on going after any sort of dissident, as against prioritizing public health at this point. In fact, our Health Minister has not held a single briefing since the pandemic began.

And this is something someone like Donald Trump understands. Our prime minister has not addressed a briefing in six years.

So we are facing a pandemic at a time that we are in complete regulatory capture. An article said last month that that is a genocidal-like mafia in India, and I completely agree with how that this government has weaponized the pandemic, using colonial-era laws like the Epidemics Act, which was first brought in power during the bubonic plague, when the British Empire wanted to curtail civil rights in Mumbai. And this government is doing exactly the same thing that the British Empire did the last time around there was a pandemic.

Now, coming to your second question about India being a powerhouse for the generic drug industry, and I really think that one of the silver linings of this pandemic is that for once we are having a global drug-pricing conversation, which includes the point of view of the developing world. Because the truth is that no matter what is discovered in whichever part of the world, it will be scaled up either in India or China, where the factories are. And if we do not pay attention to the kind of completely racist trade policies and intellectual property policies, the troop agreement in particular, that is ensuring that we do not have access to drugs. If I take the example of hydroxychloroquine, when the U.S. government wanted it, the first thing Donald Trump did in the press conference was threatening India with retaliation.

Then remdesivir came along. He procured the global supply. So there are two aspects here where even when they do have a drug, are they going to have broad and equitable distribution in all the countries? And the second aspect is, even in rich countries, the tragedy is the American people don't have access to them. That would be just the same way as Indian nations don't, because for as long as now, we have over and over again for cancer, and then for TB, and then for Hep C, kept doing stories, which there's all the American patients are suffering because the insurance system. And then we do a story about how Black and brown patients are dying disproportionately. But they do not talk about the pricing strategy, which all big pharma companies now apply, which is invariably procured out of university funded research, and then they come to India or China and take a voluntary license and then ensure that it is not exported to the any of the viable markets by countries like the U.S. or poorer countries like Brazil and India.

So nobody has access to these drugs then because patients keep dividing themselves into cancer patients who are fighting for access or HIV patients who are fighting for access. We don't have one united conversation about how whatever this injustice in health is, in my opinion, somehow the troop policies are, and we have to go back and renegotiate it.

One of the good ideas that I have heard now has come from UNICEF, where they say that they said this earlier for remdesivir, and thankfully it's not showing as much promise as hoped, and I'm hoping another drug will come along. But what we do need is a globally binding treaty, which WHO has the power to put together, and it has to ensure equitable distribution rather sooner than later. It's already happening in the U.S., where African-Americans have a higher mortality. So at some point, the pandemic is going to take hold in the global south, and Black and brown patients are going to die disproportionately. And unless we have a conversation and look at what are the deals that are being signed between Big Pharma and India, because the first time we have a pandemic where the interests are aligned, we will not be able to solve this problem of global drug pricing.

Deborah Blum I agree with you, and it reminds me of a couple of points that I've thought as a long-time science journalist. One is that, you know, and it's certainly reinforced by organizations like the World Federation of Science Journalists, is that we have to really look at these stories globally, including the pharmaceutical pipeline. And we need to quit acting as if, and certainly in this epidemic I can get swallowed up by what's going on in the U.S. alone, and remember that these are global stories, and they're connected stories.

And the other is, if I can go back and redo science journalism school, I would put more policy in there. Right. I think it's really important for us as science journalists to remember that even bench science doesn't exist in some golden vacuum separate from reality, and a lot of the things we're writing about have powerful policy implications behind them. And good science journalists need to be aware of that, personal opinion.

I wanted to also talk about, I mean, it sounds to me your point about the global south, you know, that we're seeing. And if you look at the trackers, we're definitely seeing increased cases in Latin America, not just Brazil, and certainly cases have been accelerating. And speaking of U.S. borders, Mexico, isn't there something, Kai, in what we've been talking about in Europe that explains why, barring the interesting experiment in Sweden, the approach seems so much more science based and logical? Is that more cultural than anything, or is that some amazing consequence of good journalism?

Kai Kupferschmidt Oh, yeah, no, I'd love to take credit for how Europe has done. I think it's very you know, it goes back to what I was saying earlier. I think there is a little bit more just structurally. There's lots of historic reasons for this. I think there is more trust in Europe towards the government. I mean, you have to remember when you don't have a vaccine, when you don't have any drugs, really, all you have is people changing their behavior. And in order for them to change their behavior, you need to have a consistent message and people need to trust you that your message is the right one, and that you're giving it in good faith. And I think there is kind of a store of trust towards the government in many places in Europe that has been eroded in the U.S. and in other places. And the message has been consistent. I would argue that the two exceptions to this in Europe would really be the U.K., which didn't have consistent messaging, and I think that they did very, very badly because of it. And then Sweden had consistent messaging, but they arguably had the wrong message, I would say.

Yes, so I think that there's no magic ingredient. I mean, I'm honestly still frustrated at the fact that we, you know, I mean, we saw what happened in Wuhan. This goes back to what you were saying about this being a global story. I mean, we saw what was happening in Wuhan, and yet, you know, it didn't arrive in Europe. People didn't take it seriously until we had Bergamo in Italy, like worse scenes. And even when that happened the U.S., felt like this is not going to happen here until New York happened. And now you can see Houston going the same way as New York because even Texas can't learn from New York apparently. I am so frustrated by the fact that we seem incapable of learning. I mean, it's a sign that systemically something is very broken in how this world responds, and, of course, it's our job a little bit as journalists. I mean, you also have historians. We can learn from history. Right. But I mean, at this point in this pandemic, we should have learned enough from other places to know what we need to do and how we need to do it. And I find it immensely frustrating.

And there's this idea of a global health journalist, and I kind of feel like any health journalist in a sense, this pandemic has shown that any health journalist needs to be a global health journalist. I mean, we are fundamentally in this together. And the fact that we're not

dealing with it in that sensible way really, really frustrates me. And I do think that even in Europe, we're doing well at the moment, and there are signs, I mean, we're pushing it, right? I mean, we're traveling now for holidays, like borders have opened up. There's bound to be at some point, you know, some increases, and then it really comes down to are people able to basically do the same thing again that we did last time? And I'm very curious. Like, I am not totally confident that it's going to be that easy, and people seem to have a very, very short memory. And I just, you know, given also like that with German history and many other places like that, we always think that we've learned something from stuff that happened 70, 80 years ago. It's kind of astonishing that we don't seem to learn from stuff that happened seven or eight weeks ago.

Deborah Blum Yes, that's a good point. You know, it's interesting because, I mean, your comparison of New York and Houston, highlights, I think one of the challenges in the United States, which is the United States really, you know, pretends to be one country, but is effectively many. Right. And if you go into the different regions of the country, like the Northeast where I live, I live in Boston, or Texas, where Houston is, I have a sister there. Or the deep, deep south, right, to Alabama, Georgia, Florida being another hotspot. You find that in many ways people who live in those parts of the country do not feel connected to each other, and so one of the things you saw in the U.S. was a kind of, to use a German word and mispronounce, schadenfreude thing from the south, "Oh look at the northeast, right. The sucky Northeast, where all the liberals live and they're getting hammered. And here in the wonderful Sunbelt." You have people saying, "We're Florida. New York screwed it up. We obviously transcended it." And so some of those kinds of tensions that you see in any really large country, I think probably played out.

And I would guess, although I'm not an expert on it, that you would probably see some of this in India and Brazil as well, in that there would be different regions or urban versus rural areas in which the information is handled differently. Is that correct?

Alvaro Pereira For Brazil, it is. We are many countries within a country, as we usually say. And who would have thought that one of the hot spots would be Manaus, the capital of the state of Amazonas, stuck in the middle of the Amazon, was one of the hot spots of the pandemic. Who would have thought of that? And it has to do with the fact that they have a free-trade zone there that has lots of dealings with China and also with the rest of Brazil with some São Paulo. So we're not sure yet if it came from China or São Paulo, but who would have thought that? And now the states in the deep south of Brazil and the Midwest, the Brazilian Midwest. That's a rough translation. Deep south of Brazil and the Brazilian Midwest, who are doing really well, there are more agricultural, agri-business plays a large role there. So maybe that's it. But now they're becoming hotspots as well. And finally, São Paulo follow seems to be getting to a plateau of sorts.

So it's a country within a country. It's huge and with a lot of inequality, much more than in the U.S. or maybe comparable to India, certainly not Germany. So, yes. I mean, there are different levels of where the pandemic is at right now and different levels of understanding of will this ever get to us? Yes, that's a major thing here.

Deborah Blum Same in India, Vidya?

Vidya Krishnan Yes, India is an extremely unequal country right now when the pandemic finds us. On top of it, we have this fascist government when Kashmir has been under lockdown since August 5, and the fact that Kashmiris have been dealing with the pandemic without internet is a human rights violation. In Kerala, South India, we have a left

government, which is the only state in the country which has done because it has a strong public health system. And we are not going to get out of this if we keep looking at COVID as the only disease that exists because the crumbling health system has completely collapsed under the pandemic. And that means that TB services, HIV services, women going to deliver babies, and we do not look at it and come up with solutions that look at universal health coverage and taxpayer-funded nationalized health services.

If we don't start having these conversations, I believe that the pandemic will have a very long, protracted and frankly devastating stay in India, which for me at this point worries me the most for Kashmiri Indians, for all sorts of minorities, who at this point are already hanging by a thread with this government. So the pandemic has basically brought all the social fabric, which was being torn apart over the last six years, all these divisions are now in front of us. It's fractured. And if they don't start talking about this and start having direct conversations, I frankly don't see a solution at this point.

Which if you think about it, it makes sense that the government has gone with the simplest reaction, which is just plain and simple denialism. Because if you start acknowledging the problem is so big, where do you start to solve it?

Deborah Blum Yes, I mean, actually, sometimes when I'm listening to you, I see so many parallels to here in terms of the denialism of our presidency and then also the demonization of journalists, which I expect also plays into the way you're able to message in Europe. You know, recently at some of the Republicans, our president is a Republican, meetings, they've been selling T-shirts about lynching journalists. They have illustrations of a rope, tree, and journalists. And the first time I saw that, I've been a journalist since I was 18, I was like, "Oh, that's my whole life. Right. I've been doing this. And here you are proudly wearing a T-shirt, wishing that I was dead." I think that that, again, tends to follow in the shadow of Donald Trump wishes he had the power of an authoritarian regime in which you need to demonize the messenger. Right.

But you said something else not in an incredibly positive way, which was you worried about what was to come. I mean, there's been quite a bit of coverage on and off about the fact that kids aren't getting vaccinated. Medicines aren't being given. In the U.S., we're seeing an increase in opioid overdoses because those programs all shut down in the pandemic. And so the long term, other health consequences associated with this are real and are already starting to show around the edges of this pandemic.

I would like to ask you, not that I think anyone ever has an effective crystal ball, but, you know, you're three journalists who have been in the trenches of this pandemic from the beginning. So I would like to ask you two questions, which is, did any of you have a sense it was going to take the shape that it actually did? And do you have any forecasts as to what you think are likely to come next? And I would throw into that very open mix, the question of vaccines, which still seem to me to be in the not yet, not entirely probable stage, but I'd be curious both as to your assessment of how well you did at assessing the sort of forward motion or trajectory of this pandemic. Is there something you would have done differently aside from ringing alarm bells? And what do you think is most likely to be the kind of stories that you're going to be working on going forward? Do one of you want to start that ball or shall I just pick a victim?

Alvaro Pereira I think we should start in Europe. No, in Brazil. I can do that. I think I personally had no idea it would become this big, and I've been covering it since the beginning, since the first cases appeared appeared in Wuhan. And we have the examples

of SARS and H1N1. And what makes me feel a little less bad about this is that I interviewed recently Peter Doherty, who won a Nobel Prize and is a prominent immunologist from Australia, and he told me he had no idea it would become this big. He thought it would be a severe flu that would affect only certain groups of people in terms of age and comorbidities.

So I think the very first stories that I did when the thing was happening in China should have rang more bells, as you said. That's one thing I would have done differently. But I think I had no idea neither myself or I think most of scientists had no idea it would become this big. What I look forward to doing from now on would be stories about herd immunity, maybe, that finally we'll reach a plateau and what comes next. But we surely have to do stories about what may come next, what sorts of pandemics we will be facing in the near future.

Deborah Blum I think that's that's an excellent point. Kai?

Kai Kupferschmidt You know, I've been asked this a lot, actually, in the beginning, because I think I wrote an article in maybe 2013, which was actually about the fact that there are bats in China that are carrying SARS-like coronaviruses and that they could cause the next pandemic. So the idea that this could happen has been on my mind for many years. The specific shape that it ended up taking, of course, was very different from what I imagined. And I think it has a lot to do with the way that we as humans reacted to it. Like I still am baffled, like even looking at it in reality, I am still baffled at the flood of videos on Twitter of mostly women actually in in the U.S., kind of like, you know, going to shops and hospitals and filming themselves, getting all upset that they are supposed to wear a mask. It's just to me, that part I really underestimated that.

I thought when things get bad enough, everybody takes notice. That's something that I took from my time in Iberia as well. At some point people change their behavior, and an epidemic kind of comes to a natural end in some way because of that. That seems to be taking a very, very long time. And people really seem to be ready to accept harm to themselves just for avoiding the inconvenience of wearing a mask, for instance. That just like it still doesn't compute for me. My training isn't in psychology, and maybe that's something I need to brush up on. It just surprised me. And that's maybe the biggest oversight I had, I think, was really anticipating a little bit more what the current political climate would mean for a pandemic. And there were people who said it before. They were very smart people in like, you know, dealing with large-scale events and catastrophes and saying, you know, the moment that, for instance, Trump has something like this happen, they predicted quite a few of the things that happened.

For the future, I think, it feels like at least in Europe, we have a bit of a lull where we can start looking back a little bit and kind of look at some of what did or didn't go well. And I think we just need to try and really use the time to see what we've learned in that time and really do that and write some of those stories. And then, of course, there's plenty of science to keep us busy for the next months and probably years.

Deborah Blum Agreed. And so we are out of time, and you guys have been amazing. I think Vidya had to go, but we'll see her again when we do the actual live podcast event. And just then I will also ask you, which I didn't want to ask you this time, because it's been such a good conversation, some of the advice you might give to journalists also trying to figure out how to navigate this. But thank you so much for your wisdom and insight and your time today.

So here we are back again, and I want to ask Helen Branswell. Helen is the infectious disease reporter at Stat. She has the distinction of not being from the United States, but living here so that she brings a Canadian and international perspective, as well as a perspective from being based in Boston. Helen, that recording was made about a week ago, and the numbers have gone up considerably, no surprise, since we did that recording. So I want to briefly mention the ones I track today, about 15 million cases worldwide, over 600-thousand deaths worldwide. U.S. is approaching four million cases and well over 140-thousand deaths. Brazil, over two million cases, 80-thousand deaths. In India, over one million cases, almost approaching 30-thousand deaths. Europe overall, about 2.8 million cases, about 200-thousand deaths.

Clearly, all of us underestimated this virus in different ways, and I'd like to go back to a couple of points that were raised. One from Kai, should journalists have raised alarm bells earlier and would they have been effective? And then another one that kind of flowed through this, which has to do with accuracy of information. Are we seeing from the respective governments of these countries as you assess it, the case counts I'm giving you do you believe them? Do they underestimate, overestimate? Where's your sense of where we are in this right now, as an infectious disease journalist?

Helen Branswell You want me to answer both those questions?

Deborah Blum I want you to answer a lot, especially because we weren't able to bring you in last week, I'd like to have you deal with those first, and then we'll open it up more widely.

Helen Branswell Yeah, I wish I had been able to be here last week. It was a really interesting discussion, and I effectively agree with pretty much everything everybody said. Kai and I have talked a number of times, I think, about the issue of the early days and would things have changed? I don't know if they would have. I certainly took it very seriously right from the first minute I saw that there were cases because I had covered the SARS outbreak in 2003. And there were just echoes of that in the earliest reports, and so I was sort of programmed to see that this was something that could potentially go badly.

I know I wish I had been more alarmists, honestly, at times. On February 1, I interviewed Mike Ryan, who runs the emergencies program at the WHO, and, you know, he said this is still controllable. I thought he was nuts because it's a pathogen that spreads by, it's a respiratory pathogen. How do you control a respiratory pathogen? But I mean, he's Mike Ryan. He knows a lot more than I do, so I wrote the story. And, I pretty much wish now I'd put my hair on fire trying to get people to pay attention to what he was saying, because it turns out that one can control respiratory pathogens, or at least this one, that there are ways to bend a curve and to do things that, frankly, people didn't think were possible before this, and lots of countries have done. And yet the United States has not. Brazil has not. Other places have not.

And I felt here like from the get go, there was either a maybe it won't come or there's nothing we can do to stop it kind of approach. I think there was a fatalism from very early on, and, you know, going back, if you could go back and change time, I think, addressing that fatalism probably might have had a different outcome. But of course, that's not doable.

Your second question was about accuracy of information?

Deborah Blum Yes, from governments in particular.

Helen Branswell Well, it's an interesting question sitting here in the United States. I'm going to riff on that a little bit. The point you asked the others and Kai was addressing this in the conversation you had last week. We do a terrible job, both our schools and perhaps us as science journalists, preparing people for the fact that when there is a new disease, virtually nothing is known about it, and we will learn over time. And what we think we know in week one, will not be what we know in week five, will not be what we know in week 25. And some things will remain true and some things will shake out, and we'll learn more as time goes on. And that is not a reflection of anybody trying to mislead or act in any kind of nefarious fashion. It's just the way science is. It evolves.

And so because people are not prepared for that kind of stuff, you see a lot of reaction to things like the CDC changing course on wearing cloth face coverings. There was zero evidence to support wearing cloth face coverings. And then people started putting together that, you know, it seemed to be doing something elsewhere, maybe it should be studied. They made a recommendation. Later, the WHO made a recommendation, and they're both being lambasted for having changed their position, having acted too slow, but they were trying to do evidence-based risk communication. Information will change, and we need to understand that and forgive the fact that people didn't know all the facts beforehand.

But to your point, that doesn't forgive people who are making erroneous statements, and we have seen plenty of those in this pandemic. History will judge the others of those statements quite harshly, I think. People are dying as a consequence.

Deborah Blum And there is a question here from Zoom that kind of follows up on what you just said, Helen, and it is to both Alvaro and Vidya. How do you manage to get information then and tell an accurate story when governments like India and Brazil, this question mentions Mexico as well, minimize the pandemic because they believe it makes them look bad? How do you overcome the untrustworthy information from your own government to give people an accurate picture. Vidya, do you want to start then Alvaro?

Vidya Krishnan Sure, I have not been able to. Implicit in the question is that I have somehow managed and navigated this well, and I don't think I have. The Indian government, like you said, we crossed a million cases, and the Indian government still doesn't accept having community transmission. This is information that should be in public domain. But it's been like pulling teeth. Getting any information out from this government has been just so frustrating. And there are some good people in the system. And you have to believe that there are good doctors in the system and there are people who know what's happening. And I like Helen said, history is going to judge them the way they deserve, but at this point, I don't even feel that I'm even able to make that first draft of how bad things are, because I don't feel I've been able to just capture this moment in history in India with the horrors of what's happening to the minorities, to people who don't have food and don't have shelter and now have a pandemic to deal with.

Deborah Blum That's a very accurate point, and let me bring it over to you, Alvaro. Do we then expect too much of journalists that they accurately describe a pandemic when the sources they should be relying on are busy trying to misstate the evidence?

Alvaro Pereira Deborah, as I said in the previous part, I mean, we had to step in and do the job. And in the case of Brazil, there's something very tragically funny happened here. The government every day early in the evening, they would put out a statement with the number of new cases and deaths. I'd say maybe sometime around 6:00 p.m. or 7:00 p.m.

So our prime time newscast, which starts at 8:30 p.m., would always have those numbers. One day the president said, "I don't want stories on," it's called Jornal Nacional, our primetime newscast. "I don't want stories on Jornal Nacional anymore. These numbers will be released much later in the evening like at 10 p.m." So we wouldn't have the official numbers at the right time.

So the solution for that was to put together a media consortium of Globo, the network that I work for, and other prominent media companies in the country that tally up their own numbers based on information that we get from each state, which the information is reliable. And actually the information that comes from the government is not blatantly wrong. That's not it. But it's slower. The timing is not appropriate. So we came up, not we I mean, the Brazilian media came up with that. We tally up our own numbers, which are more reliable than the government's numbers. That's how things are going.

Deborah Blum I think that's very smart. I have a question here. All of these questions are related, but Kai you talk about feeling more comfortable talking about your fears on Twitter than in your articles. Do you think the reluctance of science journalists may be detrimental to share fears to their stories? Are there better ways to contextualize those fears in your stories than we have been able to accomplish so far?

Kai Kupferschmidt Yeah, I'm sure there are better ways. The question is, do I know any of them? Not yet. Otherwise I hope I would use them or at least try to. I think what is clear to me is that, I mean, this is part of the bigger discussion in journalism, right? It's this question of what is the position from which I write? I mean, Jay Rosen has said there's no view from nowhere. I mean, and I think there's more of an acceptance nowadays that as a journalist, you have a certain point of view, and you're a human being, you have a certain reaction to things. And there is a way of putting that into your story and making that part of what makes it trustworthy in a way.

And I personally, I don't remember whether I talked to Helen about this, but Helen wrote a story very recently. Oh, no, I did it on Twitter, actually. You know, Helen wrote a story recently which she started saying something like, "You know, there's no use denying it. The COVID-19 epidemic in the U.S. is a raging dumpster fire." I mean, that's the kind of story, you know, I'm not quite sure I would be able to write a lede like that at Science magazine. But coming from someone like Helen, I think that packs a certain punch. And I think we have to be willing. You know, this is a very specific situation. This is, you know, maybe a once, hopefully, I want to say once in a lifetime, but I doubt it's once in a lifetime. But, you know, it's hopefully a once-in-a-decade situation we're finding ourselves in, so I think we have to be able also a little bit to step up our game and to maybe, you know, respond in a way that that's commensurate with the situation we find ourselves in.

I'm all for keeping calm and letting the facts speak and all of that. But I think there is space within this and within journalism for different voices, and I think it is important to be able to maybe have those kind of voices out there as well. And that's something I'm certainly going to be taking away from this pandemic going forward, thinking about what is my role in this and how does my Twitter persona inform my journalism?

Deborah Blum Yeah, that's a good point. And I think that, you know, speaking as someone who lives in the United States, "dumpster fire" is an absolutely accurate term, which is why she could get away with it. But you also have to be in a position where you're considered a trustworthy source, which is often a challenge for journalists, for people to

trust us. Do they believe what we say? Do they see the integrity behind the reporting that we're doing?

And this leads me to a question to all the panelists, which is what would you say has been the most challenging factor of covering this pandemic? And the questioner lists four possibilities: governments managing it; conspiracy theories, fake news in social media; contradictory information; and D other. So if you were going to pick all of you the real challenge that you think you faced in doing justice to covering this pandemic, what would be at the top of your list?

Helen Branswell I'll go first, if you don't mind. I have a close second, but I would pick D other. And it's just the sheer scale of the story. It is so massive. It is impossible to keep on top of it. The way I report, I like to go deeply into topics and know what I'm writing about really well. It's almost impossible to do now. You cannot keep up with all the pre-prints, whether the pre-print actually made it into a journal, what all the journals are pushing out because they're all pushing out things. There have been five or six things that have come out probably while we've been talking. The numbers, whether the numbers are accurate. It's just, people use the expression "fire hose," but it doesn't begin to describe this. It's like being hit by a tsunami multiple times a day, you're just standing there, and it washes over you. And you know, you're flailing around trying to figure out, OK, do I change what I'm working on? And do I drop this and do that? It's very tough, and it's also really hard to keep abreast of everything. I'm finding it very, very challenging.

Deborah Blum That's an excellent point. We have a few minutes left, and so I'd like to ask each of you then to address that question quickly. What have you found the greatest challenge? And if you can compress it into your minute or so, what kind of advice would you have as we go forward?

Alvaro Pereira I think for us in Brazil it's fake news and things that people get from social media and WhatsApp. And how do you address those things, and how do you make clear that that is fake? That that is not true. That your story will not be misunderstood. That you are somehow promoting something that is fake. I think that's the biggest challenge for us, so that's why we try to be as clear as possible, and the reporting has to be as detailed as possible so that people understand what's fake and what's real.

Deborah Blum That's an excellent point. Vidya?

Vidya Krishnan I want to say all of the above. If I have to pick one thing that I'm personally struggling with, in India it's also coupled with the humanitarian tragedy, with the lockdown and the migrant crisis. And it's just become impossible to get people to care about it. In fact, it's just difficult. Just hearing Helen explain that tsunami reference was physically tiring for me because that's the kind of deadline we've been meeting for like six months now, and there's no end in sight. And it gets overwhelming, and nothing in my training as a journalist has prepared me to deal with a story like this.

Deborah Blum Yes, all of you guys just are so smart on these points. It's a pleasure to moderate this panel. Kai?

Kai Kupferschmidt I have to agree with Helen, I think. For me, just. I'll try and be constructive on this, though, so it is impossible to keep up with everything. You know, in the early months, I would sleep very little, talk to 10 different scientists every day, try to

read the papers, know what's coming up. It's completely impossible at this point, and it became impossible a long time ago.

And so for me, I'm very lucky. I have amazing colleagues at Science magazine, like John Cohen, like Martin Enserink, like Gretchen Vogel, Jennifer Couzin-Frankel, so we have the luxury of kind of dividing it up a little bit. And of course, journalism is always teamwork. And so, I'm kind of concentrating on a few things and concentrating on kind of the genetics of it, and the treatment, the therapies. And even then, it's really hard. So what I ended up doing is like every two weeks or three weeks, I do something on treatments, and then I switch over to genetics. And then I try to read everything that happened in the last two weeks on genetics, and that's a lot. And then I write a story kind of looking, trying to define the current moment and look a little bit forward. And then I switch back to the other one.

That for me at the moment, at least, that's still kind of working. I think you have to, and this is going to sound very unjournalistic, but I do think you have to free yourself a little bit from being on top of every piece of breaking news, because, you know, I think you're doing the public a much bigger favor if you're really trying to look back at the landscape of the last two weeks and to identify the peaks in that landscape and then try to describe those peaks and kind of put them into context. And if you do that, it also means that in the next two weeks, not every little piece of breaking news is going to completely change what you wrote. Like if you wrote about hydroxychloroquine, the big study, the recovery trial, and it'll be very hard for a different trial to kind of like invalidate those results and change my view fundamentally on hydroxychloroquine because of the way that the trial was conducted and the numbers and so on.

So for the moment, I'm kind of finding my way of working. That way works. And then the other thing is, I think like honestly, and this goes for all of us, I think we all need to have a break. I think we all do need to take holidays. There is the sense sometimes when you're completely caught up in a story that you can't be replaced, which is complete nonsense. All of us can be. And I think we really have to take that time. Like I'm realizing I'm young, and I always thought that I wouldn't hit a wall easily. And I'm noticing that there are just things that you can't keep on doing for six months and certainly not for a year.

Deborah Blum And I wish we could do this for another hour. This is such a good conversation. Maybe next summer we will come back and really assess what happened. But you all are an amazing group of panelists. I feel, as a science journalist, so lucky to have all of you and your colleagues, you know, letting us know what's going on and dealing with the tsunami and still reporting, and making sure that everyone out there, including me as a reader and listener, has some kind of clue as to how this pandemic is changing the world. So thank all of you for your time here and for what you do every day.

Mallory Tenore I want to echo Deborah and just thank you all for being here with us today. I know I learned a lot from hearing you talk and judging by the participants' questions, it seems that they learned a lot as well. It was really helpful to get that behind-the-scenes look at your responsible reporting of the pandemic and learn more about how the pandemic is playing out in your respective countries. So thank you all so, so much for being with us here today.

Before we wrap up, I just want to invite everyone to come to our last panel of the day, which will be at 4 p.m. Central, and we'll be looking at disinformation and misinformation and what can be done beyond traditional fact-checking. So this conversation will be

especially relevant and timely. You can look at ISOJ.org to find out more details about it, and we look forward to seeing you there as ISOJ 2020 continues.