NEWS YOU CAN'T USE

Two government professors explore the epidemic of COVID misinformation

BY BETH SAULNIER

In a July episode of HBO's "Last Week Tonight," John Oliver lamented the onslaught of misinformation about COVID-19, skewering the many conspiracy theories that have cropped up—from the idea that 5G cellular towers spread the virus to the claim that the pandemic is a politically driven hoax. At the end, he enlisted celebrities to film messages urging people to be critical consumers of social media. "There's a lot of information on the Internet nowadays; not all of it is true," said *Ant-Man* star Paul Rudd, going on to note that apocryphal news of his own death once trended on Twitter. "So before you share something with your friends and family, it's good to ask yourself how much you know about where that information is coming from."

As researchers work to understand myriad aspects of COVID, some have parsed this very issue: the role of false information—which has ranged from the touting of quack cures to the rumor that Bill Gates will use a coronavirus vaccine to microchip everyone on Earth—in how the public perceives the pandemic. Among the earliest work on the subject comes from government professors Sarah Kreps and Douglas Kriner, who in June wrote an essay in *Scientific American* describing two studies they conducted last spring. One explored how well people recall headlines relating to inaccurate (as well as accurate) claims about the virus and how adept they are at judging what's truthful, while another gauged the efficacy of corrections to fake news. "Effective policy responses to the pandemic require at least some degree of buy-in from the public, or an ability to mobilize the public to support government measures," they wrote. "This depends, in large part, on Americans being able to distinguish fact from fiction. On this metric, the public struggles mightily."

In July, Kreps and Kriner talked about their findings with CAM via Zoom. ›

‘People are awash in content—you can’t separate the wheat from the chaff, so you’re unable to mediate between fact and fiction.’

ON THE RECORD: COVID misinformation in the news. Opposite page: Graffiti, seen in early May, discounting the veracity of the pandemic.

Why do you think misinformation has been such a huge issue during the COVID pandemic?

Sarah Kreps: Early on, there was a lot of uncertainty about where the virus came from and how to treat it. For example, the CDC and WHO have had to walk back their earlier guidance about masks, when back in February and March they were saying that people shouldn’t wear them because they weren’t effective. That was not misinformation; it was that medicine was still learning about this virus. Against that backdrop of uncertainty, a lot of these conspiracies were filling the void.

Misinformation seems to be an even bigger issue during the pandemic than in the 2016 election. Why is that?

Douglas Kriner: Some of this is due to the fact that we’re all home, locked down, being bombarded nonstop with this information. But in our research, we still found partisan differences as well as differences in terms of media consumption. The more social media you consume, the less able you are to pick out fake news and say, “Yes, that was a false claim.”

SK: As this has gone along, it’s looking a lot more like the political misinformation from 2016 where people were selecting into certain media environments—conservatives were choosing their media outlets and liberals were choosing theirs—and they’re getting these ideas refracted through partisan cues. It becomes difficult to have a thoughtful conversation about public health because of these increasingly entrenched and confused perspectives.

In your writing, you refer to a “fog of misinformation.” What does that mean in this context?

SK: It gets at this sense of nihilism: we don’t know what to believe, nothing is true, everything is contested. It’s hard to cut through that fog because people are inundated with information. The fact that, in our studies, those who have more social media exposure were less equipped to adjudicate properly suggests that people are awash in content—you can’t separate the wheat from the chaff, so you’re unable to mediate between fact and fiction.

The documentary *Plandemic*, which promotes COVID conspiracy theories, got eight million views in a week before being blocked by YouTube, Facebook, and Twitter. How does it fit into the conversation?

DK: The things that are most shocking about *Plandemic* are the sheer number of people who watched it and the number of likes, shares, and follows on social media. But even though we don’t have direct data on *Plandemic* and the response to it, our research suggests that just looking at the number of likes, shares, and views is probably misleading. Most people can’t recall even outlandish claims that have received a lot of attention, both widespread sharing on social media and mainstream media outrage. That’s not to say that *Plandemic* and other news like it is not impactful. To go back to that “fog of

PHOTOS: KREPS, JASON KOSKI/JUREL; KRINER, CHRIS KITCHEN; CLIPPINGS, NEWSPAPERS.COM; OPPOSITE, PAUL IWALA/ALAMY

misinformation," the most pernicious effect is not so much that it encourages you to believe the false claims but that being bombarded with misinformation hinders your ability to be a savvy media consumer and to find the factual information that you need to keep yourself and your family safe.

SK: It's emblematic of this backdrop of polarization and the fact that there are still things we don't know about the virus. We think of medicine as a science, and it is—but with something like a virus, doing certain types of randomized control trials is not feasible or ethical, for example in education and the question of reopening schools. We have some observational data from South Korea, Israel, and Europe, but those populations and public health contexts are so different that we can't easily draw inferences about the appropriateness of opening schools in Los Angeles or Upstate New York. There's no dispositive proof one way or another, so it leads to a lot of guesswork and wild speculation about proper policies.

What spurred your interest in studying this?

DK: We knew that there's a lot of misinformation out there; there are quantitative studies on the number of times fake claims have been shared or retweeted. But we realized we don't know how much fake news people actually recall and how well they can differentiate between accurate information and misinformation.

SK: Some of the earliest misinformation was that swallowing bleach could cleanse the novel coronavirus out of your system. We all heard that, but did many people actually internalize it as something prescriptively good?

One of your studies was on recall of news headlines. How did that work?

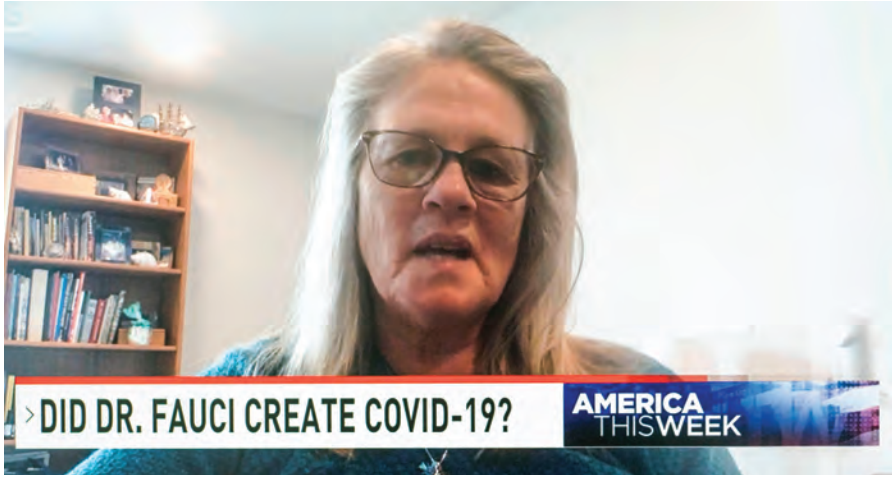
DK: For three categories of COVID-19 stories—about the origins of the virus, treatments for it, and the efficacy of the government response—we came up with three sets of stories: headlines shared on social media that were false; headlines shared on social media that were true; and placebo headlines that weren't any more or less zany than the actual fake news that was out there, but never widely circulated on social media—for instance, "Corona Beer Consumption Has Been Linked to the Spread of Coronavirus in the Southwest."

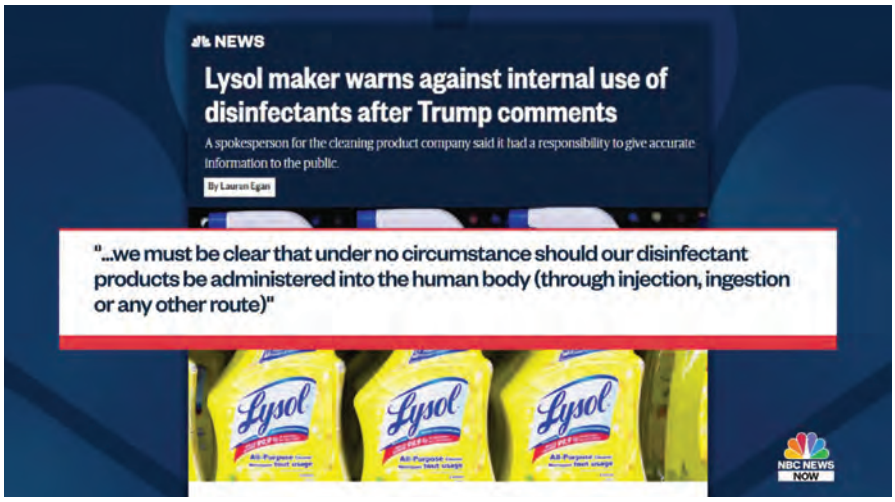
What did you find?

DK: There's a lot of fake news out there, but most Americans don't remember it. It doesn't necessarily mean it hasn't affected how they think about the pandemic, but at least there aren't large percentages of people who read false claims about treatments and remember, say, "Advice from Japanese Doctors Treating Coronavirus Cases: Drinking Water Every Fifteen Minutes Reduces Your Risk of Contracting the Virus." That's a relatively small percentage of the public.

What about the second part of that study, on how well people can identify true versus false information?

DK: We found that with fake news, roughly between 50 and 60 percent could say, "Yep, this is fake"—which means that almost half could not. They either said it was true or they weren't sure. Perhaps the most disturbing result was on factual information—for instance, things such as "Drug Used ›





to Treat Ebola [i.e. Remdesivir] May Help COVID-19 Patients, Preliminary Results Suggest," or "Such a Simple Thing to Do: Why Positioning COVID-19 Patients on Their Stomachs Can Save Lives." Less than a majority were able to correctly identify those as true. So perhaps even more troubling than the percentage of people who believe fake news is that misinformation is crowding out factual information.

SK: In my other work, I've looked at the strategic aims of outside actors from China and Russia who try to meddle in U.S. domestic politics, and the goal is not to change what people think, it's to sow confusion—you have a world where nothing's viewed as actually true or false. The implications of that are very important.

Could you talk about your work on how aggressively social media companies should flag false claims?

DK: We looked at the effects of simple corrections that say, "This claim is false"—the standard approach of a lot of social media platforms—versus corrections that go beyond that and rebut the claim with evidence. We looked for efficacy and also for evidence of a backfire effect—the paradox that if you call out misinformation, some people might become even more entrenched in holding that perception.

> 'Perhaps even more troubling than the percentage of people who believe fake news is that misinformation is crowding out factual information.'

What did you find?

DK: Simple corrections had no effect whatsoever in reducing misperceptions, though they had a modest effect on reducing engagement—whether you like or share the article. They had no backfire effects, but also did not have the intended effect. The stronger, enhanced corrections were more effective, and we did not find any evidence of backfire. So the evidence certainly suggests that social media companies should not be as concerned about backfire and need to do a more aggressive job at countering misinformation if they want to move attitudes and correct misperceptions.

Having done this dive into misinformation, how does it impact the way you personally consume media?

SK: It has caused me to be more circumspect. There was a study that came out from South Korea in July about how the virus spreads in children compared to adults; the *Wall Street Journal*'s conclusions about it were more optimistic [about its implications for reopening schools in the U.S.] than the

PHOTOS: TOP, ZUMA PRESS, INC./ALAMY; BOTTOM, NBC NEWS; OPPOSITE, TOP & BOTTOM, PUFFIN'S PICTURES; MIDDLE, CHUCK NACKE/ALL ALAMY

coverage in the *New York Times*. Having worked on this, it's not that I don't buy that there's a true and a false, but I'm much warier and more likely to say, "I want to see two or three studies that point in the same direction" rather than taking one that's written up sensationally as the last word.

DK: The media isn't very good at the presentation of uncertainty. It doesn't want complex scenarios; it wants a clear answer that can be given in a digestible format. So much of this preliminary work is being shared in preprints [of academic papers] and is democratizing and speeding up the distribution of results in a way that is pretty unprecedented. I'm cognizant of thinking about the limits of any individual news story as we're trying to grapple with something that's emergent and seemingly ever-changing.

SK: It's really interesting to see how people are having to think about science—and the media at times does not do the science a great service. Some of this is not their fault, because science is really hard and imprecise, and more uncertain than most people would have thought.

Do you have future work planned on this topic?

DK: We're focused on understanding attitudes toward a vaccine when it becomes available. We have a paper under review that's looking at different potential aspects of a COVID vaccine and how people view them.

SK: In the last decade, a strong anti-vaccination movement has reduced by about 10 percent the number of parents who vaccinate their children—and we know that misinformation has contributed to vaccine hesitancy. How is that going to play into the willingness to vaccinate for COVID-19, especially since this will have been the fastest development of a vaccine of all time? If people have heard more about the long-debunked and retracted study linking autism and vaccination, will that make them more hesitant? What's the overlap with people who don't vaccinate for polio or MMR [measles, mumps, and rubella]? We're starting to tease that out, and we're finding some pretty interesting patterns.

What have you found so far?

DK: As you might expect, the efficacy of an eventual vaccine is the most important factor. But perhaps most troubling, we found substantial hesitancy to take a vaccine that is only 50 percent effective, which is the FDA's minimum acceptable threshold for approval.

SK: Older people and African Americans are much more hesitant, and we want to figure out why; that's really important, because those are very vulnerable groups. We'll also be interested in knowing how misinformation messages affect how people think about the safety of the vaccine in ways that impact their own health and that of the community. If public health authorities can't communicate about the safety of a vaccine in a credible way, their efforts will really be impeded. And there's every reason to believe that misinformation will play a role. Three of the main groups involved in promoting the anti-vaccination movement are already laying the groundwork for messaging on COVID-19. ■

TAKING TO THE STREETS: Scenes from COVID-related protests. Opposite page: A TV interview on Sinclair Broadcasting with Judy Mikovits (top), who's featured in the controversial documentary *Plandemic*; NBC News coverage of the furor over suggestions that ingesting cleaning products could cure COVID.