

Dr. Casey Fiesler: Making tech ethics go viral

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MIT Science Policy Review spoke with Dr. Casey Fiesler about her work to bring technology ethics to the general public through social media. Dr. Fiesler is an Associate Professor of Information Science (and Computer Science by courtesy) at the University of Colorado Boulder, specializing in the areas of technology ethics, internet law and policy, and online communities. Dr. Fiesler's work on research ethics for data science, ethics education in computing, and broadening participation in computing has been supported by the National Science Foundation (NSF), and she is the recipient of an NSF CAREER Award. As a public scholar, she frequently speaks on topics of technology ethics and policy, and her research has been covered in a wide variety of media outlets, from *The New York Times* to *Teen Vogue* (though she's particularly proud of her TikToks). Dr. Fiesler holds a PhD in Human-Centered Computing and a JD from Vanderbilt Law School. We had a conversation with Dr. Fiesler about her widely followed social media channels, where she addresses technology ethics with the general public. You can follow her on Instagram and TikTok @professorcasey.

This interview has been condensed and edited for clarity.

Science Policy Review: As researchers who also work at the intersection of artificial intelligence (AI) and society, we admire how well you communicate your research to others, whether through TikTok or Instagram. What led you to public science communication?

Dr. Casey Fiesler: It doesn't feel like something that I intentionally started doing. I have long thought that talking about our work on social media is really important for researchers to be doing, and I felt that even when I was just tweeting. I assume that most of us are doing research because we want to have an impact on the world, and I feel like that impact is diminished if no one knows about it outside of academia.

My start in content creation wasn't science communication; it was advice for graduate students. I started a YouTube channel with advice for PhD applicants because I'd been running PhD admissions and thought, "Nobody's telling people how to do this. I could tell people how to do this." It was the beginning of the pandemic, and I couldn't leave my house. I needed something to do.

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Figure 1: Dr. Casey Fiesler

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When I started on TikTok, it was to try to push traffic to my YouTube channel. I don't actually recommend doing this, but if you took the time to scroll to the very, very bottom of my TikTok, you would find that for the first six months, all of my content was academic advice and academic humor. I was doing skits, like TikTok trends about peer reviews and other content like that. Then I made one video about racism and technology. The reason I made it was because I was stitching a video where someone was talking about an instance of their experience [with technology] and they said, "I know this isn't racist, but it feels racist."

The person was Asian and their Memoji was always squinting. They said, "This feels racist." I thought, "You know what? This is something that I know about." So I made a video and explained, "Here's why this feels racist, and here's a bunch of examples of a similar kind of thing. Here's how

it works. There's machine learning happening here..." That video blew up, which I was not expecting. I started making more and more content like that, and my audience slowly grew.

Now the way I feel about it is that there aren't a lot of great accessible sources of information about computer science and computing ethics for the general public. There's some great journalism work happening out there, and there are some pretty accessible books that I often point people to. But there's a big difference between someone saying, "Oh, I'm going to pick up a book about AI ethics" and someone who's scrolling through dancing and cooking and dog videos, and then suddenly there's me saying, "Did you know algorithms can be racist?" "No, I didn't know that." It feels very rewarding to me. I feel like I'm teaching people things in a space where they want to learn, but might not know *what* they want to learn.

SPR: What considerations went into picking a social media platform to share your work?

CF: I was very active on Twitter for a long time, and my Twitter audience was big enough; I have a good twenty or twenty-five thousand followers on Twitter. It's not just academic Twitter, it's much broader than just talking to other academics. I started thinking, "Oh, I could talk about things that are more for everyone and not just other academics." I see TikTok as a much more extreme version of that, and Instagram too.

The fact that they're based on recommender systems means my content gets in front of new people much more easily than it does on other platforms. I started with academic content on TikTok. In my very first TikTok, I'm pointing at some very generic pieces of advice for PhD applicants. I thought, "I don't understand how this platform would work. YouTube is a search engine, so I get how people find my content, but I don't get how anyone is going to see this." I wake up the next morning, and this video has like 30,000 views, and the comments are all saying, "Oh my god, this is so great. I'm applying to PhD programs right now!" And I thought, "What is this algorithm?"

I could go on and on about the pros and cons of TikTok as a platform, but it has the ability to push the kinds of content that people want to learn about to them, as well as things that they might not know they want to learn about. I've chosen these platforms because I think I reach a much more diverse section of the general public.

SPR: What are some of the difficulties that you've come across when communicating AI ethics research, and how do you overcome them?

CF: One of my favorite in-person talks I've given recently was for the Boulder University Women's Club, which was a room of about a hundred women, mostly in their seventies. It was all retired women, and they asked me to talk about AI. I wasn't there to talk about my research. I was there to explain AI to them. Many of the women came up to me afterward and said, "Thank you so much for making that make sense to me." You have to really be able to adjust to what your audience

might know or not know.

When I'm making content for TikTok, I tend to assume [a limited] base of knowledge, but I feel like I don't always need to explain how something works in order to explain what point I'm trying to make. This morning, I made a video about energy costs of AI based on a news article. I thought, "I don't need to explain what generative AI is to make this video." I feel that sometimes researchers can get lost in the weeds. Often we want to explain everything, because that's what we have to do in a paper, but when you only have 60 seconds or 90 seconds, you have to pick what you're going to say versus not say.

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SPR: What underrepresented communities do you hope to support through your work? Why are these communities essential to the broader AI community and decisions regarding the future of AI?

CF: I think this is really important. Some of the research that I have done has been around broadening participation in computing in terms of education [1]. It's something that's always in the back of my mind. Engaging more diverse audiences is part of choosing the platform, right? I don't know the demographics, but my guess is that I'm reaching a much greater diversity of people on TikTok than I am on Twitter.

I try to highlight the disproportionate harms of AI. I mentioned that one of the first videos I made that went viral was about racism in technology. I sometimes wonder if I'm the right person to talk about these things. On the one hand, I can engage with these topics without it having as much of an emotional toll as I imagine it might have for some people. [But] I do try to highlight other voices and point to other people who are doing work in this space. Often this is telling people to read Ruha Benjamin's or Meredith Broussard's books [2,3]. More than half of the books that I routinely recommend to people about AI ethics were written by Black women because they're doing the work. When you talk about broadening participation goals, some of it is seeing a greater diversity of people who are doing this work. AI ethics happens to be a place where that is very true.

SPR: How do you incorporate underrepresented voices into your work as a researcher?

CF: A lot of my research has been around online communities for marginalized or vulnerable groups. I did some work on queer spaces in fandom [4] and Black Twitter [5], and this is all work that's led by my students. It's all qualitative work. It's all about talking to people.

One of the core tenets to a lot of the work that I do is that

I feel like people who are ethicists are seen as the buzzkills. Like, "Oh, you're so anti-technology." I think that when you love technology, that is when you are most obligated to critique it the hardest. You should be critiquing it because you want it to be the best that it can possibly be. That's how I feel about the internet. I have criticized TikTok to the moon and back, but I'm also the first person who's going to defend the good things about it. There are really good things about it.

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This has been the theme of a lot of the work that my students have led: that the internet is such an amazing way to connect communities and share information. The work we did with queer people shows that it is literally life-saving [6]. At the same time, queer people are getting harassed, there are privacy violations, and content moderation is a mess [7]. We need to be able to talk about both. We need to be able to contextualize the good things and the bad things. I think that both of those are exacerbated for people who are vulnerable or marginalized online. If you were in a position where you can't find an in-person community because, let's say, you are a queer person living in a rural area, then the internet becomes your lifeline. At the same time, you are in a much more vulnerable position in terms of privacy violations. Both the harms and the benefits are exacerbated.

SPR: Your TikToks approach issues in AI policy with a lighthearted, funny, and joyful attitude. A desire-based research framework explores the painful aspects of social realities alongside the wisdom, hope, complexity, and self-determination of lived experiences [8]. How do you incorporate the positive aspects of minoritized groups' lives into your research and science communication work?

CF: I think that it is really important that we contextualize the harms of technology with the good parts. For example, I feel like I've been a bit more negative about generative AI than I have been about other technologies such as social media. That's partly because I'm waiting to see what the benefits are. What worries me is that the benefits of this technology are not being seen by the people who are also harmed the most. So, that contextualization of harms and benefits also needs [to consider if] the people who are being harmed are also the ones benefiting.

SPR: What do citizens need to know about current AI policy?

CF: I have never been one who thinks that everyone needs to learn how to code, for example, even outside the context of

AI. I do think that having a basic understanding of computing and how it works, even if this is computational thinking or using Scratch for a day, makes a huge difference in terms of technology not feeling like magic. I feel like the more that you understand how something works, the more prepared you are to critique it.

Part of the reason that I'm doing what I'm doing is that we've got a huge diversity problem in tech. There is an argument: "We just need more diversity in the AI development team." What that feels like to me sometimes is, "Hello, minoritized person. Fix all of our problems for us. Here you go." Right? That is not a good solution either. There are always problems when you get into the tech workforce, and you're dealing with all these other things, but asking, "What, you haven't fixed all of our bias problems, (woman we just brought onto the team)?" I think that's a problem too.

Even when our development teams are not as diverse as we would like, having more people who understand enough about technology in order to be able to critique it means that we have greater diversity in types of critiques. For example, a viral tweet from someone with a disability explaining why a technology didn't work for them; *that* makes a difference. I feel like the more of that we can get, the better.

SPR: What's the most important thing that legislators should know about AI?

CF: I have to give some props. I think that the AI Bill of Rights (1) is an exceptional document. And one of the reasons is that it lays out the potential harms of AI in a very understandable but research-backed way. There are lots and lots of concrete examples.

I guess my answer to this question would be: I want policymakers to have a very basic understanding of how this technology works. Technology seeming like magic is not a good place to start for policymakers. I watched the entire TikTok hearing [9] around this time last year, and the number of people who did not understand how content moderation works, for example, was very clear.

Legislators should know how the harms of technology can disproportionately impact different types of people. I always think of Sasha Costanza-Chock's book Design Justice [10], where they quote a tweet about Ello that states "If your beta social network doesn't allow blocking abusers from jump, your beta social network was probably developed by white dudes. #ello —@AngryBlackLady" And so true, because who is the best at imagining ways that social media might be used to harass people? People who get harassed a lot, which does not tend to be the people who are the CEOs of these social media platforms. I think the types of harms that might impact different types of people are important [considerations]. I feel like the Bill of Rights gets at that reasonably well, though it was drafted before the explosion of generative AI.

SPR: Dr. Robin Kelley asserts that cultivating a Black radical imagination through art, such as music and poetry, can "build community, establish fellowship, play

and laugh, and plant seeds for a different way of living, a different way of hearing” [11]. What is your radical dream for the future of AI?

CF: Overall, I hope the benefits of AI are distributed equally, especially for those who are currently experiencing more harm. When people think that AI is very powerful and will change everything, I feel that part of the utopian vision is that we have to work less. If AI can help us do things so that we can do them faster and we can be more efficient... "Maybe if I didn't have to do some of these things, I could spend more time on other things," right? I feel like that's the ideal, that's what people think of as a good thing.

The problem is that right now, the way that that is manifesting is, "Oh, we have four programmers, and now, thanks to ChatGPT, two programmers could do the work of those four programmers, and so we're going to fire two of those programmers because now these two can work twice as much." What should be happening instead is, "Oh, this is awesome. These four programmers can now work half as much at the same pay." AI should help us in ways that give us more space to routinize rote things, but right now, it will not happen because of capitalism. I guess that's radical in the sense that it would require a complete restructuring of society, but I think we can get closer.

In the short term, I would like to see more people understand AI. Most people understand how generative AI works enough to understand its limitations and make very informed decisions about how to use it. That's not as radical, but I think it's a little more plausible.

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