

Path to Online Privacy: An Interview with Dr. Jen King

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Dr. Jennifer King is the Privacy and Data Policy Fellow at the Stanford University Institute for Human-Centered Artificial Intelligence. An information scientist by training, Dr. King is a recognized expert and scholar in information privacy. Sitting at the intersection of human-computer interaction, law, and the social sciences, her research examines the public's understanding and expectations of online privacy as well as the policy implications of emerging technologies. Most recently, her research explored alternatives to notice and consent (with the World Economic Forum), the impact of California's new privacy laws, and dark patterns. Her past work includes projects focusing on social media, genetic privacy, mobile application platforms, the Internet of Things (IoT), and digital surveillance. Her scholarship has been recognized for its impact on policymaking by the Future of Privacy Forum, and she has been an invited speaker before the Federal Trade Commission at several Commission workshops. She has been featured in numerous publications and outlets, including *The New York Times*, *the Washington Post*, *the Los Angeles*

Times, Wired, Recode, National Public Radio, CNBC, Bloomberg, CNET, Vox, Consumer Reports, NBC News, MIT Technology Review, among others. Dr. King completed her doctorate in Information Management and Systems at the University of California, Berkeley School of Information.

Prior to joining HAI, Dr. King was the Director of Consumer Privacy at the Center for Internet and Society at Stanford Law school from 2018 to 2020. Before coming to Stanford, she was a co-director of the Center for Technology, Society, and Policy, a graduate student-led research center at UC Berkeley, and was a privacy researcher at the Samuelson Law, Technology, and Public Policy Clinic at Berkeley Law. She was a member of the California State Advisory Board on Mobile Privacy Policies and the California State RFID Advisory Board. She received her Master's in Information Management and Systems also from the University of California, Berkeley's School of Information, and her undergraduate degree in Political Science and Sociology from the University of California, Irvine. Prior to entering academia she worked in security and in product management for several Internet companies, most notably Yahoo!.

Katie Yoon: Could you please tell us a little about your academic background and how your education shaped your career journey?

Jen King: My undergraduate majors were sociology and political science. Coming from a very technical family, I was pretty much told I should be a programmer. But I didn't want to be a programmer. And when I went to school, there was a lot less focus on making computer science accessible to people who may not have been programming since they were teenagers. While I did try to take some intro to computer science classes as an undergrad, I felt shut out because they were completely taught from the perspective that everybody already knew the material. And I didn't. But I also knew that it was possible to do so because, again, I came from a family where everyone including my mom worked in programming. So it was very frustrating. This is to say that I ended up in technology more because I came from a family that practiced it, not because I studied it in undergrad.

I also wanted to go to grad school but knew that I didn't want to study a singular discipline. Coming out of political science, for example, I wondered, *do I want to study political science in grad school?* It took a

while for me to find an interdisciplinary program that mapped to the topics I was interested in. In fact, I didn't go to grad school until a decade after graduating from undergrad. I first got my master's degree after having worked in the tech industry for seven years.

I worked in product management during the era of internet startups, the dot-com boom. Through my work at Yahoo, the last major company I worked at before attending grad school, I had a front row seat to the first chapter of the tech boom. I went to grad school thinking I would go more directly into user experience research afterwards. But I had a long-term interest in privacy and became aware in grad school that it was something that somebody could actually study from my advisor, who was a law professor. After I graduated with my master's degree in information management and systems from the UC Berkeley School of Information, I was trying to find privacy-specific roles, but they didn't exist back in 2006. I got lucky because not long after I graduated, my advisor called me and said, "Do you want to come do research with me? I have funding." And I was like, "Sure, that sounds interesting." And that opportunity was what allowed me to specialize in digital privacy. While working with her she gave me free rein to explore privacy issues and technology. And that's what really got me going. Then a few years later, she moved from the School of Law at Berkeley to the School of Information where I'd gotten my master's and when she did that I applied for the Ph.D. program. Long story short, I went back for my Ph.D., and graduated in 2018.

Yoon: How did you transition from your undergrad major to tech in the first place? What, in particular, sparked your longstanding interest in privacy?

King: It's relevant to be talking about it now given what's happening at the Supreme Court [with the abortion ruling]. As a political science major, it was crystal clear to me after studying U.S. constitutional law that, as a woman, the only thing that guaranteed me any autonomy in the world was decisional privacy, which we're debating right now, with Roe versus Wade. But that right to privacy extends to a lot of other spheres of life. And so that sat with me deeply. I felt to me as a woman, the only thing that allowed me to exist in the world as a full-grown adult, essentially, was the fact that you had this form of decisional privacy—you can make choices for yourself. In a world where prior to that, it felt like women didn't have rights, or at least very limited rights. We didn't get the right to vote in this country until 1920.

When I went to work in technology, I initially came up through journalism. I was on the undergraduate newspaper, editor of my high school newspaper and I worked as a freelance journalist and fact-checker before I went into tech. But then as is now it's really hard to make money in journalism, and a lot of magazines and forms of journalism were

moving online.

But I didn't stay with the journalism side of things. I moved over to production. At Yahoo, I focused on what we now call user-generated content, which was all the original ways that people used to post photos and interact online. That was the first wave. And that's where I was exposed to the same kind of social conflicts that we deal with online today. It was this experience with content moderation that made me realize we were confronting questions of social justice, civil rights, and free speech. All those concepts I'd studied as a political science major, and also in sociology, I was seeing those conflicts play out online directly, even though they weren't widely discussed at that time. It was apparent to me that all these civil rights issues were so inherent to how people were going to be interacting on the internet, even then.

Yoon: How did your professional experience working in security and product management influence how you approach your research?

King: I was exposed to all the social problems on the internet. A unique position because as somebody who wasn't a lawyer but was interested in these issues, content moderation was one of the first places where I encountered all these conflicts: what's free speech? What should we moderate? All the same issues that we talk about today were already in existence back then. I was dealing with them while trying to build a content moderation system, devising policies around issues of illegal content. So what that experience did for me was to make sure we understand how it caused real harm. Seeing people hurt through the posting of online photos without their consent, for example. I mean these aren't abstract things. These are real problems with real people behind them with real damages and real harms.

I entered this field with an applied mindset, meaning I was looking for policy solutions. I was looking for ways to evaluate how well technology addressed social challenges. And so for me, coming from a practitioner background, this was never about the theory, per se. It was always about practice. It was about actual problem-solving. And so that's been my focus. In all the research I've done from the start, it's been mostly empirical work and trying to understand, if a platform is doing X, Y, or Z, is it going to solve or cause a problem? If you allow people to do something online, what does that do to your actual privacy? What does that do to your expectations of privacy? How do the affordances a platform creates help or hurt you? So it's been reactive in some ways, but also proactive in trying to understand kind of how technology impacts us, and then how we in turn are impacted by technology.

Yoon: Since publishing your dissertation on privacy decision-making,

have you observed any notable shifts in these power imbalances between individuals and companies? Or do you think any further systematic changes would be beneficial?

King: When I was working on my dissertation, it took close to three years. I started it in earnest in 2015. And during that time, you're doing your research, and you're writing and you're very heads down, and you're not necessarily very engaged with the world that's going on around you. It's probably an understatement. But it was delightful to finish the dissertation and to look around and realize that there's been a real shift.

I think it's a couple things. One, is that people have begun to go beyond thinking about privacy as just about, like, online shopping. It's become a major component of discussions of civil rights. So that's maybe about the first big change, and that, I think, was just emerging around 2018. It's really taken off. You see actors in the advocacy space that five years ago, eight years ago, weren't thinking about privacy and data and they began to realize, 'Oh, it underlies everything in civil society.' If I want to get a loan, it's no longer just about my credit worthiness. It's also about all the data that's been expected of me potentially from many different sources. If I want to get housing, landlords can look me up on social media and potentially discriminate against me. So people have begun to realize just how all-encompassing online data is.

And relatedly, and this is the conclusion I came to in my dissertation work, that the expectation that you could just focus on individuals— that privacy settings, self-management, our own tools to manage our data—it's not enough. At the end of the day, it'll never be enough. There has to be a federal-level law that gives us individual rights. But ultimately many of these questions also crible around collective decision-making and collective bargaining in the sense that I as an individual can only do so much in all my relationships with all these different data providers. There's not much I can do on my own. That means that for us to have any real effect, we have to think about collective solutions to privacy and collective solutions to data. And so again, an area that I feel like few were talking about while I was in the process of writing the dissertation.

But I was delighted again, around 2019, to look around and go 'Oh, like other people are following this thread.' What we're seeing is this interest in new data governance concepts like data collectives, and data trusts. While none of these discussions are particularly mainstream, there are now many people thinking about and trying to work through these issues of how do we remedy the power imbalances between individuals and all the different actors that hold our data. Some of that is being legislated in the courts right now through antitrust. So that's been one way that it's been thought. Others are trying to rethink the entire structure of the internet, which I

think is another big positive research agenda that's been pursued for the last few years.

Relatedly is the question of how we exchange and share data. A question I'm interested in and have been researching is how do we create new structures for managing data that don't just assume that our data sits in the hands of the Facebooks and the Googles? What does it mean to give ourselves meaningful control over our data? And how do you do that without me having to spend a lot of time managing it? Because nobody wants to do that. I don't even want to do that. I think about these issues all the time. So it's been a real delight to pull my head up out of the dissertation pit, and look around and see that there are these ideas that are starting to blossom. It makes me very optimistic. Even though I feel like we still have so far to go with resolving issues of privacy and data.

Yoon: That's nice. Yeah, I feel like so much can change in the span of three years. Another question I had relates to interdisciplinary work and how you incorporate both quantitative and qualitative research. What are your strategies, types of research methods, and ways in which to balance both technical and nontechnical approaches?

King: It's dependent on who you can work with and what kind of team you can gather because I think empirical research is a really tough thing to do on your own. And certainly anybody who's worked on a dissertation or even a master's project, where they've had to collect their own data and manage the whole process, no matter what kind of data you've collected... you'll know that it's a difficult thing to do individually. So these research projects often work better when you're working with a group of people. If I were a faculty member, I would presumably have a group of grad students that I would consistently work with.

I also talk to other people at other universities. I've collaborated with computer scientists in the past. And that's often a good relationship because I can find people who have the technical skills that I don't have to do some forms of data gathering, or to conduct empirical work with interviews, creating and testing interfaces, as well as experimental survey research. It depends on the research question, as well as my resources and what I can do independently.

Yoon: What motivated your interest in dark patterns?

King: I've actually been interested in this topic for a long time before we even called them dark patterns. It comes from the same line of interest where I worked in online security at Yahoo, thinking about: 'What do we do when people do bad things online?' And as a double major in sociology, I remember one of my favorite classes I ever took was on

deviance—just trying to understand why people engage in abnormal behavior. I was interested in online topics, in part because I was dealing with people doing bad things online, and also trying to understand why they were doing them. But relatedly, issues on online trust and credibility, such as: how do you judge that this website is real and not fraudulent? That was an important topic in security related to password and account phishing. How do I know who to trust? How do I know if this link is valid? Or if it's going to install malware? These are all interconnected issues around trust and identity.

Early on in my Ph.D. journey, with my background in these topics, I focused on privacy and privacy policies in particular. For instance, can people find online privacy policies? Do they even read them? If they don't read them, why not? All these questions around the user interface and how the information is presented, and how people think about these topics. I was approached about working on a legal online fraud and deception case for the Federal Trade Commission that was the first applied dark patterns work I ever did back in 2010. That was one of those experiences that was very formative.

And right about the same time, Harry Brignull, who coined the term dark patterns and started the first website on the topic, had begun to notice those things in his own work as a practitioner. And so this concept has been around for a while. It's unfortunately gotten a lot more pervasive. But it was from all those different threads that brought me into this applied question of: what is a deceptive interface? What does it mean when you hide disclosures in plain sight, and you can get people to sign up for things or pay for things without understanding that they are doing so? It was an extension of my work in the security space. It does intersect with privacy, but it was more about this intersection with topics like trust, credibility, and deception. It all came together and it's been a continual thread in my work.

Yoon: Thank you so much for sharing your academic and career journey. What advice would you give to current students at Stanford, especially students who may want to pursue a similar path to yours? How should students prepare? Or what new roles in this privacy area can we expect?

King: One of the best things about having come to work at Stanford has been working with undergraduate students in particular who have been interested in all these topics. It's just been terrific, in part, because there are so many more opportunities now than there were for me when I first got into this industry. I think that if you're interested in 'Tech for Good', or public interest technology, are thinking about technology and how to improve the public sphere, there are just lots of different pathways you can follow. We have a great group at Stanford that's focused on publicizing

those opportunities and finding out about them. Getting involved with the Public Interest Tech Lab here at Stanford is a first step.

There are lots of opportunities, even if you want to be a software engineer, for example, and aren't interested in doing any kind of policy or product management, for those coming out of computer science. There's a lot to be gained by understanding ethics and the impact of the technologies you might build. If you're thinking about the policy space, there are many internships and opportunities. I always encourage students to try to spend at least a quarter, if not a summer, working in Washington, D.C. for Congress, a state legislature, or a civil society organization working on public interest tech issues.

When I was an undergrad I spent a summer in D.C. as a Capitol Hill intern and it was absolutely one of the best things I ever did. Even today, it is so useful to even have a basic grasp of beyond-the-book learning of how government works. The actual experience on the ground and seeing how government functions helps me think about policy. When I work with other people who have not had that background, when they try to address policy and impact and how to make useful recommendations based on their research, there's often a big gap because they don't know what policymakers actually do. How do they spend their days? What does it actually mean to create policy? So if you have any interest in being in policy, try to find a way to get yourself to D.C. or some other seat of government. It's instrumental because you'll learn a lot and it'll be unlike anything else you may ever do.