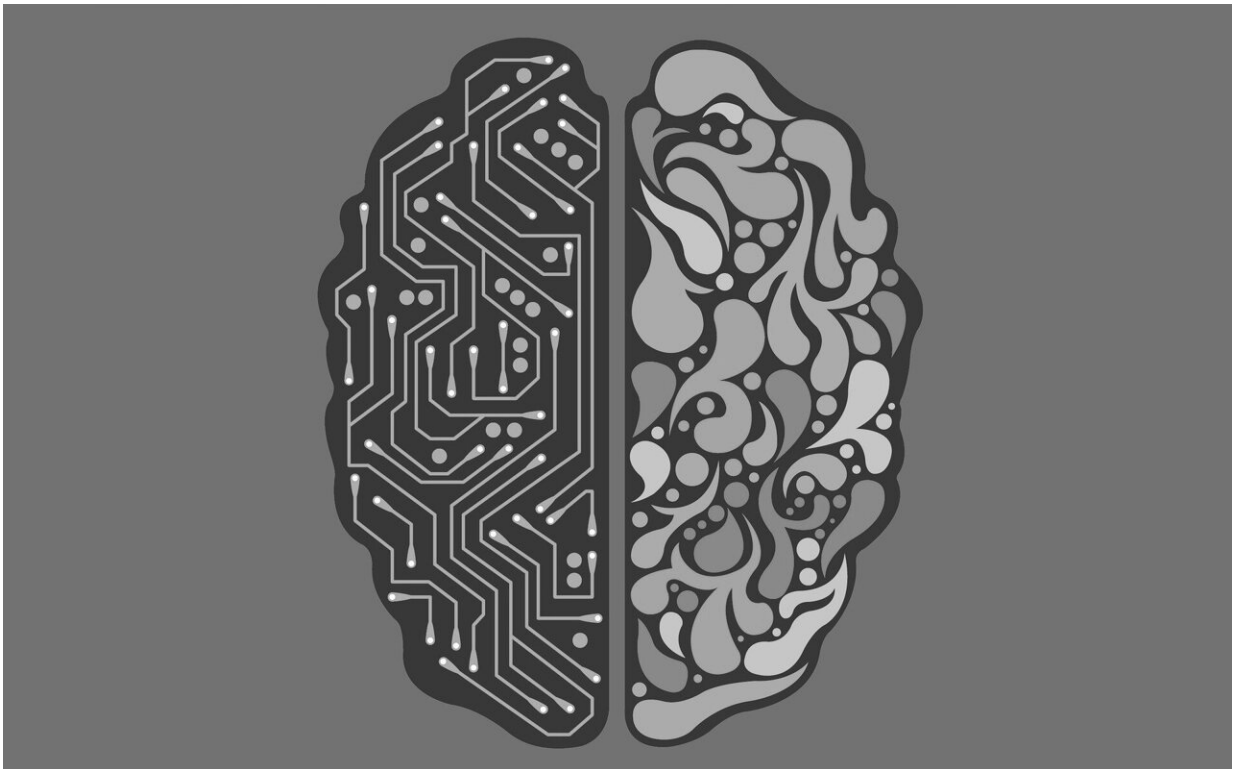# Computer scientist aims to protect people in age of artificial intelligence

October 4 2022

Credit: Pixabay/CC0 Public Domain

As data-driven technologies transform the world and artificial intelligence raises questions about bias, privacy and transparency, Suresh Venkatasubramanian is offering his expertise to help create guardrails to ensure that technologies are developed and deployed responsibly.

"We need to protect the American people and make sure that technology is used in ways that reinforce our highest values," said Venkatasubramanian, a professor of computer science and [data science](#) at Brown University.

On the heels of a recently concluded 15-month appointment as an advisor to the White House Office of Science and Technology Policy, Venkatasubramanian returned to Washington, D.C., on Tuesday, Oct. 4, for the unveiling of "A Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People," during a ceremony at the White House.

Venkatasubramanian said the blueprint represents the culmination of 14 months of research and collaboration led by the Office of Science and Technology Policy with partners across the [federal government](#), academia, civil society, the private sector and communities around the country. That collaboration informed the development of the first-ever national guidance focused on the use and deployment of automated technologies that have the potential to impact people's rights, opportunities and access to services.

"As a nation, we've done this before with consumer privacy, and the Patient's Bill of Rights, for example," Venkatasubramanian said. "Civil rights and [civil liberties](#) are a sacred institution in our country… Every major country and blocs of countries in the world are thinking about what it takes to govern automated systems and account for bias, but the U.S. has not, so this is something that was a long time coming."

Venkatasubramanian is a researcher and educator immersed in the development and impact of technology and [artificial intelligence](#). The opportunity to advise nationally aligned not only with his expertise, but also his concerns about the ethical use of technology and bias embedded in the design of some AI tools, which can infuse past prejudice and

perpetuate discrimination.

On the occasion of the AI Bill of Rights announcement, Venkatasubramanian, who is deputy director of Brown's Data Science Initiative, shared insights and perspectives on his stint at the White House, his humanistic approach to computer science, and what he looks forward to accomplishing at Brown in the years to come.

Q: Why are 'guardrails' around the development and use of AI an issue of national importance?

We recognize that there are a lot of potential benefits from automation and data-driven technology—all these promises of what could be. But we also see that the promises often tend not to pay out. For example, we can try to build an AI system to make sure we can't discriminate in the [criminal justice system](), but systems that suck up data from previous arrests are irrevocably tainted by the history of racial injustice in the criminal justice system. And then implemented at scale, this taint spreads. All data that's fed into a system is just going to amplify biases in the data, unless there are rigorous and carefully designed guardrails.

These technological systems impact our [civil rights]() and civil liberties with respect to everything: credit, the opportunity to get approved for a mortgage and own land, child welfare, access to benefits, getting hired for jobs—all opportunities for advancement. Where we put these systems in place, we need to make sure they're consistent with the values we believe they should have, and that they're built in ways that are transparent and accountable to the public. It's not something we can slap on after the fact.

Q: As a computer scientist, why are you concerned about the impact of technology on society?

I have been studying these issues for almost a decade, thinking about what's coming next and what the world will look like when algorithms are ubiquitous. Ten years ago, one concern I thought we were likely to have was whether we can trust these systems to work the way they're supposed to, and how we know these systems are accountable to the public and our representatives.

Whether you like it or not, the technology is here, and it's already affecting everything that shapes you. You are—without your knowledge—adapting how you live and function to make yourself more readable to technology. You are making yourself machine-readable, rather than making machines human-readable. If we don't pay attention to this, the technology will be driving how we live as a society rather than society making technology that helps us flourish and be our true selves. I don't like to frighten people, but it's true—and it's important.

Q: Is AI a good thing or a bad thing?

Neither, really. It's not the technology that's good or bad, AI or not. It's the impact—the harms—that we should be concerned about. An Excel spreadsheet that produces a score that confines someone to detention before standing trial is as bad as a sophisticated AI system that does the same thing. And a deep learning algorithm that can help with improving crop yields is amazing and wonderful. That's why the AI Bill of Rights focuses on impact—on people's rights, opportunities and access to services—rather than the technology itself, which changes and evolves rapidly.

Q: What will the Blueprint for an AI Bill of Rights do?

Think about prescription drugs, for example. You don't have to worry

that the drug you're taking has not been tested, because the FDA won't let it come onto the market until it's gone through rigorous testing. Similarly, we're confident that our cars will work and that regular recalls happen whenever the National Highway Traffic Safety Administration discovers a problem; and we're confident that our planes work and that every new kind of jet goes through rigorous testing before being flown. We have many examples to draw from where we don't let new technology be used on people without checking it first. We can look to that as a guide for what we think is important, and technology affects everyone.

This AI Bill of Rights is a blueprint that goes beyond principles. It provides actionable advice to developers, to [civil society](#), to advocates, to corporations, to [local governments](#) and to state governments. There are various levers to advance it: regulation, industry practices, guidance on what governments will or won't build. There is no silver bullet here, but all the levers are within reach. It will take the whole of society to advance this work.

Q: How did your experience as a White House advisor impact you?

It was life altering. My brain now works in ways I cannot—and don't want to—undo. I'm constantly thinking about the bridges between research and innovation, society and policy. As a country and as researchers, we're still coming to terms with this. For a long time, we've thought of technology as a thing we use to make life better. But we're not as familiar with technology as a thing that changes our world. Trying to make policy for an entire country—and in some ways, the entire world, because the U.S. is a leader—is challenging because there are so many competing interests that you must balance.

In my time in government, I was impressed by how complex and subtly these issues unfold in different domains—what makes sense when thinking about health diagnostic tools doesn't really work if you're thinking about tools used in the courtroom. I have a deeper appreciation for how many dedicated people there are within government who want to make a difference and need help and bandwidth to do it.

One thing that I've realized in the years I've spent working in policy spaces is that it's critical to help policymakers understand that technology is not a black box—it's malleable and evolving, and it helps shape policy in ways that we might not expect. Technology design choices are policy choices, in so many ways. Coming to terms with how tech and policy influence each other requires a lot of education—both for technologists and for policymakers.

More information: [A Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People](#)

Provided by Brown University