

## **American Academy of Arts and Sciences**

### **Class III Induction Speech: Social and Behavioral Sciences**

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It is such an honor to be here. Being inducted into this venerable institution and filmed here today indeed fulfills the dream of a lifetime: to star in a film associated with the name George Clooney.

In all seriousness, it is hard for me to convey how grateful and honored I am to be at these festivities today.

I grew up in a small town in Germany. By virtue of a generation displaced by the Chinese Civil War and World War II, my parents found themselves in a strange country in their 20s. I saw a generation of Germans question the choices of their parents. And I remember as a young boy, seeing fire crackers on the streets when the Berlin Wall came tumbling down.

That childhood left me with an indelible impression: our social institutions are fragile. And I've spent much of my adult life trying to wrestle with that fact. Trust, and public trust, is earned in drops and lost in buckets.

Those indelible impressions are what drew me to law and the social sciences. Some see a sharp juxtaposition between the two. Law is about advocacy and how things should be. The social sciences are about observation and how things are.

But the world's most wicked problems are social problems, which don't come packaged neatly in disciplinary trappings. Despite the fact that the American Academy of Arts and Sciences might classify us neatly into different Classes and Sections by discipline, there is deep value and urgency in engaging across these boundaries, just as we are today.

So much can go wrong if we don't. I'm reminded of a faculty lunch between two colleagues: one an international human rights lawyer and the other an intellectual

property scholar. They spent several minutes engaged in a vigorous debate about pirates. But only five minutes into this debate did they realize that one colleague was talking about *Somali* pirates and the other one was talking about *software* pirates. I think they came to more agreement after clearing that up.

Let me offer three examples of how our institutions – and the urgency to strengthen democratic institutions – need that broader form of engagement across boundaries and with the social sciences.

Example One. The county I live in, Santa Clara County, was the first in the country to see the trajectory of the pandemic and issue a shelter-in-place order. That was informed by the emerging infectious disease science. But within a matter of weeks, the social dimensions of Covid-19 hit with a vengeance. About 25 percent of the county identifies as Latinx, but more than 50 percent of cases were for Latinx individuals. In order to tackle dramatic racial disparities, the classical public health toolkit had to grapple with social disparities. To allocate scarce testing resources, a conventional strategy favored by infectious disease experts was to go after household members of people who tested positive. But the precise worry was about blind spots in testing coverage. And we showed in one intervention that the *social* knowledge of community-based health workers (promotoras de salud) and simple insights from machine learning doubled or tripled the effectiveness of the conventional strategy. Public health could not afford to turn a blind eye to the social disparities of disease.

Example Two. One of the fiercest debates of our time is around the governance of artificial intelligence, how to harness its potential for good while addressing its potential for bias, privacy violations, worker displacement, disinformation, and the like. Conventionally, AI has been evaluated via technical performance benchmarks. But as AI moves into the real world, those computer science benchmarks are proving woefully insufficient. The fear is not about the technical property alone, it is about the human-machine interaction, which requires the science of human decision making. The funny thing about humans is that they can ignore, overrule, or over-rely on algorithmic tools. Humans love automated music recommendations, but hate medical ones. Some judges rely too much on criminal risk assessment scores and others find them a waste of time. In recognition of the need to treat the governance of AI as a sociotechnical challenge, the Stanford Institute for Human-Centered AI and Stanford RegLab

bring together such a wider range of disciplinary perspectives and communities to ensure that the future of AI centers human values and social impact.

Example Three. What is the future of government in light of existential challenges to democracy? Public trust is at an all time low. And part of the blame is that government programs often don't work very well. It is in the basic citizen-state interactions – the payment of an unemployment check and filing of a tax refund – where public trust is earned or lost. For decades, the Supreme Court has emphasized the need for accuracy in these interactions – in benefits decisions for veterans, immigrants, and the disabled. And emerging technology may help increase accuracy in government decisionmaking. But over the course of the 20th century, the Supreme Court came to neglect equally important values, like dignity and equality, in favor of accuracy as the lynchpin of procedural due process. A program with perfect accuracy may still fail its most basic democratic goal. The wrong move would be to use technology to wholesale skip hearings in the name of accuracy and efficiency. As one veteran noted to a judge, “Judge, I know I’m going to lose, but I just want to be heard.” We can treat government programs like an engineering challenge, but as the social sciences teach us, process, and dignity, matters.

Each of these simple examples teach the same basic lesson: to address wicked problems requires engagement across boundaries. Working to help solve society's toughest problems leads us to a more engaged social science, one that moves from dispassionate observation to engagement, collaboration, and, yes, intervention.

Science is social, and we cannot tackle the most urgent challenges of the day without the social sciences.