

“What is Needed is Hard Thinking”

Five Challenges for the Social Sciences

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The announcement that I was leaving the Hewlett Foundation for LSE caught my friends and colleagues in the U.S. by surprise, and I got tons of questions. If I was president, what was this vice chancellor thing, was one I got a lot. My mom, meanwhile, couldn't understand why I wasn't chancellor and kept asking if I was being demoted. But the question I heard most was: why would you quit a job where you get to give away \$600 million dollars every year to causes and organizations you care about? Writing in *Inside Philanthropy*, David Callahan asked, “with a gig that sweet, why would you possibly leave?”

I want to begin with my answer to that question, which underlies what I want to talk about today respecting the present and future of LSE. As I have said to many of you, I missed being in an environment that was primarily about ideas. Ideas play a role in professional philanthropy, but are not themselves seen as a form of action, and the field generally shows little interest in them. When foundations do fund ideas, it's usually to create evidence for predetermined outcomes; less about learning or understanding than about justifying conclusions already reached.

This never sat well with me. That we should begin with questions, not answers, should go without saying. Advocacy should follow from research, not the reverse. The desire to advocate may frame the questions you want to ask, but it shouldn't dictate the answers. I wanted to be back in a place where that's the norm: where the very nature of the enterprise is an ongoing conversation among participants who want—yes, I'm going to quote our motto—“to know the causes of things” and who, as a result, are always open to learning and changing their minds. And the stakes are high, because ideas are, in fact, a powerful form of action; in the long run, maybe the most powerful form: if you want to change how people act, there is no more effective means than changing how they think.

Obviously universities are not the only institutions in society where ideas are developed. They do, however, have and deserve a special place because of the singular nature of their cultures and commitments. Universities are institutionally unique, inasmuch as their central task and animating reason is to develop and support a community of critical thinkers who can and will, collectively, analyze and seek to understand complex issues from multiple viewpoints. We are a truth-seeking enterprise that, paradoxically, rests on a commitment to the idea that we never know for sure if we have truth.

I say this fully cognizant (I hope) of the complexity of the word “truth,” with the inherent subjectivity we inescapably bring to it, framed by different positions, power, opportunities, and the like. As my friend, political philosopher Josh Cohen said to me, “if you think you've got the truth, all you've shown is that you don't take the idea seriously.”

It is, in fact, precisely this recognition that frames our unique role in society as the only institution whose whole purpose and very reason for being is an ongoing effort both to develop

ideas and to challenge ideas, including our own. And not just ideas in the abstract. Ideas that address the major issues and problems of society.

LSE has always appreciated this. Its explicit purpose, as articulated by the School's founders, is not just to understand causes, but to do so for "the betterment of society." In a diary entry from September 1, 1894, Beatrice Webb wrote that she and Sidney did not want to spend the Hutchinson bequest on direct political engagement because:

Reform will not be brought about by shouting. What is needed is hard thinking. What is lacking in [politics] is the leaven of knowledge. Sidney has been planning to persuade the other trustees to devote the greater part of the money to encouraging Research and Economic study. His vision is to found, slowly and quietly, a "London School of Economics and Political Science."

It was a novel idea then and still is: a school devoted explicitly and exclusively to scientific study of the problems of society and how to address them.

I took that as the main challenge coming into this position: Students and scholars at LSE were central in shaping thought and action on the major issues of the 20th century. It's why the School is so well known and widely respected, why our "brand" is considered so valuable. What, then, are the problems we can address that will maintain our relevance in this 21st century?

I have spoken about this with many of you in the months since I've arrived, and I've learned a lot from you about the kinds of things you work on and care about. I've tried to capture these in terms of five major challenges I see us collectively addressing: challenges that are, in one way or another, critical for the societies in which we live, and key areas for research by LSE scholars and students going forward. These are, in short, the challenges of popular government, of political economy, of sustainability, of inequality, and of new technologies.

In what follows, I won't be offering solutions to these challenges. Not because I don't have ideas, but because here I want to lay out my understanding of the problems, which are already the focus of work by many across the School and so comprise at least a partial agenda for us. Note, too, that I will be offering *my* understanding of these challenges, based on work I have done over the years. So my president/VC hat is off for purposes of this lecture. What I am offering is not LSE's position—it does not have one—nor am I saying that this is how any of you should think about these issues, except as you may find what I have to say persuasive. But even if you think I am entirely wrong about the particulars, the challenges stand on their own in a broader sense as key questions for LSE's scholars and students going forward—leaving room for you to take positions from the far left to the far right, and to argue everything from denying there is a challenge to arguing that I have baked in normative assumptions that misunderstand the nature of the problem or missed the really important problem altogether.

Start with the challenge of popular government. I say "popular government" rather than democracy for a reason. The concept of "democracy" is contested and slippery. Political philosophy offers versions of democracy linked to the protection of individual rights, and versions that are not. There are versions that link democracy to capitalism and versions that hold the two in opposition to

each other. There are versions that are direct, versions that depend on representation through elections, and versions that rest on representatives chosen by indirect means other than elections. And on and on.

In actual practice, there are almost as many forms of democratic government as there are governments claiming to be democratic, with different structures, rules for elections, forms of political parties, levels of participation, and more. And, of course, none of these systems meets its stated aim, in that all reflect popular will imperfectly at best; all invariably exclude certain groups, as a practical matter and sometimes formally; and all tolerate degrees of inequality of political power that cannot be squared with theory.

So I think it's more useful to start with a looser construct of "popular government." By which I mean a government that satisfies two minimal conditions:

- First, as a normative matter, the government is established on principles (say, in a written or customary constitution) that formally commit it to govern by the will of the people, and, as best it can, to reflect their collective decisions about what to do and not do.
- Second, as a descriptive matter, the government does this well enough that people can realistically seek to improve the system, in whatever ways it falls short of this normative commitment, through processes set up in the system itself. That is, change remains credibly possible without having to resort to extra-legal or illegal actions.

If that seems like a low bar, let's not forget how incredibly difficult it was even to get there, and how fragile and short-lived every effort to establish such governments proved to be from the time of the Ancient Greeks to the late-18th century. Even then, it was not until after the two World Wars that governments meeting my minimal definition of popular ceased to be exceptional.

Using this as a starting point leaves room for the kind of work that constitutes most of the research about democracy, but it does so in a way that steers clear of often fruitless definitional arguments, in favor of a pragmatic approach focused on what practices can bring our always flawed democracies closer to what they should be. A great many LSE students and scholars are engaged in this important work. And democracies around the globe can and are benefiting from their efforts to help make governments more inclusive and to improve their capacity to meet the desires and preferences of their peoples. (A quick caveat: I went back and forth about whether to call out the work of specific LSE scholars. Because so many of you are doing important scholarship on these and related problems, I made the choice to skip names for fear that—like a bad Oscar acceptance speech—I would inevitably leave people out.)

In any event, democracy faces an even bigger challenge today, namely, the risk that we could lose even this minimal form of popular government. Such a claim would likely have been ridiculed as recently as, say, 2016 (and was when I first made it in 2012). But it would be naïve to dismiss it today. Abundant evidence shows rapidly declining faith in democracy and a pronounced drop in support for the idea that even having such a government matters—especially among

younger people. Moreover, by almost every empirical measure we have, democracy is in retreat globally.

The reason for this is not, I think, the kinds of shortfalls that are the focus of traditional scholarship in the field. Those concerns matter, as I just noted, and they call for research and reform, but efforts to improve along these lines are insufficient and, paradoxically, can make popular governments less robust and stable. The reason is that there is also a *precondition* for popular government in any form to exist and persist—namely, that the people within a state or nation share a sense that they are part of the same political community, notwithstanding their differences and disagreements. If, instead, they see disagreements within their own communities as coming from enemies and antagonists, if they see outcomes they oppose as an effort to take “their” country, deny their identity, or destroy their way of life, there is no possibility for any kind of shared government. The point is as old as the Bible. Matthew, Mark, and Luke all quote Jesus saying that “every kingdom divided against itself is brought to desolation; and a house divided against itself falleth,” language Abraham Lincoln quoted prophetically in 1858, two years before the American Civil War.

We have long taken this sense of shared political identity for granted. Yet we now see it collapsing everywhere. Political scientists talk about polarization, and we’ve seen divisions within our nations deepen over the past decade or two from ideological polarization (that is, disagreement over ideas) to affective polarization (that is, hatred and animosity toward political and ideological opponents) to outgroup loathing accompanied by hopelessness. As this happens, societies around the globe, though most pronouncedly in the developed world, are becoming divided houses that cannot stand.

As for causes, there are many. One of the things you learn doing historical research is that, in retrospect, major developments seem always to be overdetermined. So take your pick: Demographic changes, including immigration; social changes empowering or seeming to empower formerly subordinated groups, most especially women; media fragmentation; social media; wealth inequality; lack of civics education; physical sorting of where people live; the erosion of social capital; etc., etc. All these and more have been identified by scholars as “causes” of the current crisis of democracy.

The critical question is: what will it take to rebuild a sense of shared political community in fragmented and fragmenting societies? And a second question: how can we do that while building wider acceptance for desirable changes and progress—such as increased diversity and giving voice to those who have lacked it—that have been exploited by opportunistic politicians on both ends to make the problem worse? Because one of the hard truths about politics today is that efforts to improve the process have themselves been sucked into the polarization maw and become yet one more factor contributing to deepening our divides.

So here is a challenge for our times, one many people across this university are already working on and in a position to help answer.

With that in mind, consider next the problem: political economy. This one has been at the heart of LSE since its founding. As the term “political economy,” too, has many meanings, I’m

using it in its original sense—the sense of Adam Smith, David Hume, and Francois Quesnay, for whom it was a branch of moral philosophy: a values-based inquiry about the proper relationship between markets, government, and society.

It hardly seems controversial to note that what has for the past fifty years been the dominant approach to political economy, what people now call neoliberalism, is failing. I say that knowing that neoliberalism was not embraced in many parts of the world. Even in those places, however, it was effectively imposed, if only because of the ways in which the United States and Europe used their political and economic muscle, including skewing international financial institutions like the World Bank, IMF, and WTO, to adopt neoliberal approaches.

To say that neoliberalism is failing, by the way, does not require denying things it helped accomplish. With some pain, it energized stultified economic growth in the 1980s, while bringing high inflation, high interest rates, and high unemployment rates under control. The free trade regime it fostered has played an important part in bringing hundreds of millions of people out of extreme poverty. And its focus on free markets helped catalyze innovations that have improved lives in many ways and given us all cheaper and better commodities like cars, phones, TVs, and computers.

It has, unfortunately, floundered when it comes to what many (I daresay most) would regard as the most important necessities in life, including better education, better healthcare, and better housing. Over time, it has also produced skyrocketing wealth inequality (which turns out to be a feature, rather than a bug, of neoliberal economics), along with wage stagnation, not to mention the adverse consequences of its free trade approach in the developed world. And, perhaps most importantly, it has proved inadequate to deal with emergent developments like climate change, changes in gender and race relations, and a workplace transformed by the very technologies it catalyzed.

As in the case of popular government, there is a great deal of important and impressive work being done on these problems at LSE. I didn't know until I got here just how much is happening across the School, especially on healthcare and health policy and education and education policy, not to mention issues of gender, race, sexual identity, and the like. People in departments throughout the university are both doing research to better understand, and pioneering new policy approaches to, a whole range of economic and social problems. This is important work that we can and should all be proud of, and that the School can and should make efforts to amplify.

Yet here, too, I want to suggest, this work addresses only part of today's challenge. When it comes to political economy, the reason has to do with the intersection of ideas and politics. Because the likelihood that a particular policy will be enacted and will stick is not solely, perhaps not even primarily, a product of the policy's quality and sense. Rather, in actual governance, particular policies are always and necessarily nested in a broader set of ideas about political economy—an intellectual paradigm, if you will—that effect the likelihood of adoption and success.

A political economy paradigm is, in this sense, always contingent. There is no timeless perfect wisdom, but simply an approach that in a particular context and for a particular time achieves acceptance, because it works as an explanation for people: meaning it provides a convincing account of what people see in the world around them, which in turn structures how they

think about and understand the economy, what its ends should be, and so what government should and should not do.

Let me say a bit more about the nature of these paradigms, to frame what I understand to be the further problem we need to address today. First, except during intermittent periods of transition, there always is a prevailing paradigm—not held unanimously (nothing ever is), but held widely enough to make possible what we think of as “normal” politics. Conflict does not disappear, but clashes are worked out within broadly shared premises that enable the kinds of compromises necessary in a complex society in which people have divergent preferences. This is in addition to the shared sense of political community I spoke about in connection with popular government. There needs also to be a sufficient overlap in ideas to make accommodation across differences possible. Put in economic terms, if we analogize ideas to things with a price, ideal prices will inevitably differ, but there must be overlap in reservation prices.

Second, intellectual paradigms influence the outcomes of politics by tilting the playing field for or against competing claims. They do not, of their own force, determine particular political outcomes. These are ultimately dictated by interests, cultural beliefs, material needs, and other contingencies—not least the talent and tactical decisions of the various actors. What the paradigm does is to structure the rules of engagement and shape how political and lay actors understand their interests, beliefs, and material needs: putting a thumb on the scale in favor of some arguments and against others, while concealing or obscuring options that fall too far outside its main premises.

Third, intellectual paradigms are understood differently by, and function differently for, different actors. Ordinary citizens and political leaders comprehend the paradigm at a relatively high level of generality: for them, it is a thumbnail sketch, just thick enough to make sense of the world without being or needing to be a comprehensive political or economic philosophy. The same is not true for policymakers or academics, for whom the paradigm offers just such an over-arching philosophy, which they then rely on to propose and justify practical solutions to policy and political problems.

The key is in the way these different understandings are linked. A paradigm “works” when the solutions it shapes for policymakers and academics are intellectually consistent with the thumbnail understanding of ordinary citizens, while addressing these citizens’ problems well enough in practice to prop up and sustain that understanding. The intellectual paradigm that prevails at any given time, then, does so not because it fits or explains the world perfectly. No paradigm ever does. It prevails because enough citizens, political leaders, and policymakers perceive it to fit the world better than available alternatives.

It follows that, as circumstances change and evolve, a paradigm that has been accepted may lose its explanatory power. Changes in technology, politics, and society will transform the economic and social environment in ways an established paradigm deals with poorly or not at all. Because accepted paradigms tend to be sticky once embraced, the dissonance between what the paradigm teaches about how things “should” work, on the one hand, and the world as people are experiencing it, on the other, must grow quite large before enough people come to feel disaffected to produce change on a widespread scale. As this happens, we see increasing political and social turmoil until another explanation achieves acceptance. The cycle then repeats.

The process is familiar. Think of the evolution of ideas and the politics they created in the shifts from mercantilism to *laissez faire* in the early to mid-19th century, to Keynesian Social

Democracy in the 1930s, and finally to neoliberalism in the 1960s-70s. As each paradigm collapsed, we experienced heightened political disruption, with competition among rival paradigms (socialism, communism, fascism, etc.), until a new conventional wisdom achieved sufficiently widespread acceptance and what we think of as “normal” politics resumed.

The shifts can be dramatic, as was the case with Communism and Fascism. But this need not be so, and wholesale replacement with something radically different is actually pretty rare. More typically, as in the change from laissez faire to Keynes or Keynes to neoliberalism, new paradigms reorder familiar concepts and tools to fit new and changed circumstances. Still, the consequences for governance of even modest reordering can be profound.

It doesn't take great insight to see that we are, today, in the midst of another period of political disruption akin to the 1920s and 30s, or 1960s and 70s. Much as people lost faith in laissez faire or in Keynesian public management, they have lost faith in the market fundamentalism of neoliberalism. As in these earlier periods, this shows up as a loss of faith in the political institutions that have embodied the intellectual paradigm, accompanied by social turmoil and chaotic politics. And, as in these earlier episodes, people are looking for alternatives: other explanatory frameworks to help them make sense of the despairing confusion they feel and to guide their choices of political leadership and direction.

Right now, unfortunately, the available choices are pretty thin. China offers one option: state run capitalism without individual rights. The other option, which seems to be taking root in much of the world, is being called “populism,” but is really forms of ethno-nationalism. We see this tendency underlying the support for Trump and for leaders in so many other countries whose chief appeal is to blame some “other,” while calling for return to a make-believe version of a “true” national culture.

Which is where LSE comes in. The challenge is to offer something better, to develop ideas and policies and frameworks that provide a more attractive alternative not just to the failing neoliberal regime, but to the appeal of illiberal democracy: a vision for a more inclusive democratic politics that can produce a more justly distributed wealth and well-being. This entails much more than economics. To successfully enact a new policy program, we need a new values-based ethical framework connected to a new economic approach in which any such program can be nested. Note in this connection that both Keynes' “General Theory” and Hayek's “Road to Serfdom”—the ur-texts for their respective visions of political economy—were as much about ethics and civic morality as they were about economics.

We need a better account of society than the methodological individualism of neoliberalism, and we need to link that account to values more serviceable and compelling than the constrained notion of negative liberty that animates it. Likewise, we need a more normatively attractive measure for success in governance than neoliberalism's focus on economic growth as measured by GDP, one that includes not only greater concern for the distribution of wealth, but also for aspects of well-being beyond the economic. Most important, we need synthetic work that integrates these elements into the kind of persuasive holistic account that becomes conventional wisdom for ordinary citizens.

Work on every element of this is underway at LSE. But if you have ever seen a clip of Milton Friedman explaining on the *Johnny Carson Show* how a pencil is made—compellingly making the case for neoliberalism to a mass audience—you know we still have a ways to go. LSE can, and I hope will, again be one of the places to catalyze the next political economy paradigm.

With respect to sustainability, if we have learned anything in recent years, it's that there are limits to how much nature can give to our efforts to create material wealth for ourselves. These limits have been reached or are nearing across a number of ecological systems: not just greenhouse gas emissions, but also biodiversity, fresh water, aerosol loading (that is, particulate air pollution), and others. Today, I want to focus on greenhouse gases and climate.

I began work on climate when I joined the Hewlett Foundation in 2012. While climate models necessarily offer a wide range of possible results, the most likely ones at the time forecast that business as usual would increase the global average temperature by 4-5 degrees Celsius above pre-industrial levels by the end of this century. That might not make humans extinct, but it would certainly be more than our political and economic systems can bear. Think *Mad Max*.

A dozen years later, between what has been done and what is already in process, the same models put us reasonably on track for an increase of 2.7-3.6 degrees Celsius, and if current pledges to cut emissions are met, we can keep the temperature rise as low as 1.8 degrees. Those numbers are still dire: even 1.8 degrees (probably the best we can hope for at this point) will be bad. But considering that, in 2012, the entire global economy was running on fossil fuels, it should nevertheless be seen as remarkable progress—a combined product of new technologies and successful efforts to raise the ambitions of both public and private actors.

So what next? We have many of the technologies we need, and where these are lacking, they are in development. With the right kind of support and encouragement, we have good reason to believe these will be available in time. And while greater ambition is still needed, the most effective way to raise it, is to successfully deploy the technologies we have and successfully carry out the pledges already made. For now, in other words, the fight for sustainability needs to focus on implementation.

Make no mistake, the challenges to implement existing pledges and technologies are formidable. They are also challenges of social science: of economics and finance and political science, of law and sociology and psychology and, well, pretty much every discipline at LSE. More specifically, I would frame the immediate challenge around three major efforts we need successfully to execute in the coming decade or two, all of equal necessity.

First is the effort to physically transform our energy systems, that is, to deploy new energy technologies: phasing out fossil fuels (though at a pace and in ways that do not devastate the hundreds of millions of people whose lives still depend on them); building solar farms and wind farms and other sources of renewable energy; building the infrastructure for electrification of our transportation and built environment, not to mention the production and use of low carbon steel, cement, and industrial chemicals; developing sources and supply chains for the critical minerals needed (again, in ways that do not further degrade ecosystems and biodiversity); and so on. Doing this includes, among other things, figuring out the economics, creating facilitative legal frameworks, working out supply chains and labor supply, etc., etc. All things I expect folks at LSE think about when showering in the morning.

Second is the effort required to finance the first effort. By what are probably conservative estimates, to accomplish the needed transformation in time, we must invest something like \$1-1.5 trillion every year for the next twenty-five years. It's a number we're not yet close to reaching, one that will require shaking loose both public and private resources. We need creative thinking from

people working in finance and economics and political science and law, coupled with work in social and behavioral disciplines to make sure new policies and approaches gain traction and stick.

Third is the effort needed to make this a just transition, that is, to execute the first two efforts in ways that are fair to those who have borne—or will, if we are not careful, unfairly bear—disproportionate costs. This includes both finding ways to compensate the peoples of the world who will suffer loss and damage from warming already locked in, and ensuring that the costs of the transition are not disproportionately imposed on those who have always borne them in the past. It also includes finding solutions for the people and communities whose lives have been built by and around the fossil fuel industrial complex: from workers in coal mines and oil fields and refineries, to those who build pipelines and drive trucks and work in gas stations, to whole regions whose financial health and local cultures have been built on fossil fuel production.

There is more, of course. I have not touched on concerns for ecosystem conservation and preserving biodiversity, much less the overwhelming needs for adapting to the climate change that is happening and will happen even if we hit our mitigation target. But there is already work on all these issues happening across the School, and the new Global School of Sustainability is designed to provide a hub to support it so as to amplify what we can do.

Thinking about a just energy transition leads naturally to the challenge of addressing invidious inequalities more broadly. Of course, that's a topic that has been at the forefront of academic, social, and political discourse for a very long time, especially at LSE, where it has been core to the work of students and scholars from the very beginning.

The only point I would make here has to do with framing. Inequality is often talked about as if it were a single, indivisible problem, which of course it is not. It is many different problems, each requiring its own diagnosis and cure. Inequality is, in this sense, like cancer: not one disease, but many; related in a broad sense, but each needing its own specific treatment. It is, indeed, and in my view, more productive to think of inequality as an essential aspect of other problems: As we rebuild our political communities, how do we also ensure that those whose voices have been unheard or disregarded achieve equal status? As we develop new ways of thinking about political economy, how do we do so in ways that also address systemic exclusions that have further disadvantaged certain groups? And so on.

I emphasize the point because framing the issue explicitly this way turns out to matter when it comes to making actual progress in the world. Here I'm drawing on my experience in philanthropy, where the tendency to treat inequality as a stand-alone concern invariably hampered efforts to address it, by making it seem as if there were a zero-sum choice between dealing with substantive dimensions of a problem and dealing with inequalities. For example, the debate over wealth disparities became a choice between reducing wealth inequality generally or reducing the racial wealth gap, as if seeing them as part of the same problem and proposing solutions for both simultaneously was improper or impracticable.

In any event, the challenge of reducing inequality remains in the 21st century, though with the addition of new forms and contexts (such as access to broadband and AI, or the effects of social media) that require new analyses and diagnoses to understand.

Which brings me to the challenge of new technologies. This is a huge topic because there are so many new technologies disrupting so many traditions and practices across so many domains: economic, social, political, and cultural. As with sustainability, I will focus here on one, as an

illustration of the wider challenge: artificial intelligence. I choose it because it looks likely to be both the most fertile and the most disruptive technology of the technological revolution. Generative AI is also so new, and is evolving and improving so quickly, that no one can really say they understand it. There are, however, a few things I think we can say with reasonable confidence, and these frame the challenge I see for students and scholars in the social sciences.

First, the AI revolution is going to upend practices across society, but especially in knowledge industries. Which means in universities. It will change not just our administrative operations, but how and what we teach, and how and what we research—though in what ways will reveal itself over time.

Second, like all new technologies, whether the social and economic changes AI produces are for good or ill is not inherent in the technology. New technologies may be good or bad or both, and to different degrees and in different ways. It's a matter of how we decide to use and deploy them. Which means it's a matter on which social scientists, once again, should have a great deal to offer.

Take the internet as an example. It has had profoundly beneficial consequences (making knowledge accessible to vastly larger numbers of people, for instance) and profoundly damaging ones (such as the ease of spreading disinformation). All result from choices made, and not made, when it was still new. If we could go back, we would construct internet policy very differently, but the path having been created, we now live with the consequences.

Which leads to a third point: We cannot avoid making choices now. Leaving AI to develop however markets shape it is a choice; regulating it is a choice; not choosing is a choice. Whatever we do or don't do now will shape how AI wends its way into our lives. So, we need to make these choices, as best we can, in ways that preserve flexibility to change course if our initial choices turn out badly. That kind of regulatory design problem is a classic social science challenge.

In terms of our internal operations, the emergence of AI poses some clear, if difficult, challenges, such as how best to incorporate it into the School's administrative processes and how to ensure that students and staff have both access to and training for what they need. Figuring out the implications of AI for teaching is going to be tricky. An initial effort to restrict or ban its use was abandoned once people recognized it would just encourage cheating. Since then, schools everywhere have been trying to figure out how best to regulate its use.

Speaking for myself, I think we should go farther. We should affirmatively want students to use AI, and then ask ourselves how our classes and our teaching need to change. Put another way, rather than ask how to conform the use of AI to current models of what and how we are teaching, we need to rethink what we have to offer students through our teaching, given what this technology can do and given how it will transform the jobs students move into after they leave here. There is already a huge hunger among employers for graduates who, as part of their education, know how to integrate AI into their work, which is itself already beginning to transform how that work is done. We need to prepare our students accordingly.

The most exciting aspect of the AI revolution is on the research side, where the challenge is how to take advantage of the incredible range of opportunities AI offers or will soon offer. The current focus of most AI research is on potential threats and problems and how to avoid them, whether algorithmic bias in the data, deepfakes, or fear of the Singularity. These are important questions, but the possibilities for beneficial uses are of at least equal importance. We have, in fact, hardly begun to explore what AI can do for social science research: for example, taking full

advantage of its ability to find patterns in massive data sets and tease out possible causation in ways we cannot presently discern or even hypothesize. These and other possibilities will continue to unfold as AIs become better and more powerful, and innovative researchers think of new ways to use them. As part of that, there is need for research on how to design AIs for social science work: helping those who build and train them to do so with social science rather than natural science models and constructs.

Then, of course, there is research maximizing the use of AI for social benefit. For myself, I am most interested in the question of labor displacement. Historically, new technologies displaced forms of then-existing labor while creating new forms, a result today's techno-optimists say should be the case with this new technology as well. And they could be right, but I'm not so sure. Unlike earlier technological breakthroughs, AIs will presumably be capable of learning to do any new jobs they create. And insofar as a machine will invariably be able to do these jobs faster and cheaper than humans, the risk of labor displacement is very real.

Certainly the risk seems high if we just leave the development of AI to our current market-based approach, which incentivizes a short-term focus on increasing productivity and decreasing costs. We need new research to determine how we can implement and integrate rapidly developing forms of artificial intelligence in ways that enhance human capacities—that is, in ways that maximize the benefits of human/AI partnership. We then need to figure out how to create incentives to use these, rather than focusing on what is cheap or fast.

In any event, these are just a few of the countless challenges and opportunities being created by generative AI, which makes this critical *terra nova* for social science research of all kinds.

Okay: just a few more words to draw this together. As I noted at the beginning, the five challenges I've described encompass a broad range of pressing issues with respect to which there is need for an equally broad range of social science research. Hence, the title for this talk, drawn from the entry I quoted in Beatrice Webb's diary about the reason for founding LSE: "what is needed is hard thinking."

I presented these challenges as if they are distinct when they are, of course, deeply interconnected: the challenge of popular government is driven by failures of political economy, and vice versa, as well as by consequences of festering inequalities and other social change; pressure across all is added by the escalating consequences of climate change; and so on. There are, moreover, different ways one might slice the problems. One colleague has argued that I am missing geopolitics; another that they don't see some critical actors in my account (from subnational entities like cities to supranational ones like the UN); still another chided me for ignoring critical issues like the consequences of a predicted decline in global population.

For what it is worth, I see all these topics as comprised in the challenges I've described, though time makes it impossible to spell everything out, and I've already made this a much too long talk. The criticisms do, however, highlight something else I noted at the outset: These are my perspectives on the challenges of the day, which are hardly conclusive and may not even be right. My job, and my hope over the coming years, is to provide all of you the support, resources, and space to do your best work on these and whatever other challenges emerge.

The great strength of a university is its decentralization. I don't mean administratively; I mean intellectually. Many or most of the best ideas and advances of the past several centuries have

come from people in universities, more than a few from this one. That has happened, I believe, because of the environment a great university fosters and protects: one in which a community of scholars, working in different disciplines, asking different questions, using different methodologies, reaching different conclusions, all have the freedom to explore widely and deeply and, most importantly, without fear; a community in which differences are not just tolerated but sought, so we can challenge ourselves and each other productively, without animosity, and on an assumption of good faith; and a community in which we remain constantly alive to the paradox I noted at the outset: that we pursue truth while never assuming we have it. It is from and through that ferment that we can come to a deeper understanding of the causes of things and will continue to contribute to the betterment of society.