



Stanford University
Human-Centered
Artificial Intelligence



Congressional Boot Camp on Artificial Intelligence

August 7-9, 2023

Stanford University

Table of Contents

| | |
|---------------------------|----|
| A Note From the Conveners | 3 |
| Agenda | 7 |
| Keynote Speakers | 11 |
| Session Descriptions | 19 |
| Staffer Biographies | 45 |
| Thank You to HAI Staff | 55 |

A Note From the Conveners

On behalf of the Stanford Institute for Human-Centered Artificial Intelligence (HAI), we would like to welcome you to the Stanford HAI Congressional Boot Camp on Artificial Intelligence (AI). We are thrilled you can join us for an immersive learning and networking experience in the heart of the world's innovation hub, Silicon Valley.

This past year has been monumental in the field of AI, with breakthroughs and advancements that have sent reverberations across the globe. From healthcare to finance, education, and sustainability, the transformative power of AI will reshape every aspect of our lives. Indeed, AI holds incredible promise, but it is not without its challenges—challenges that we, as an informed society, need to address promptly for the benefit of all.



As we stand at this critical juncture, your role as policymakers is more crucial than ever. As governments navigate the uncharted waters of this general purpose technology, we need to apply a moonshot mentality—a concerted effort for the nation, underpinned by democratic values, commitment to the rule of law, and a spirit of innovation and entrepreneurship, to ensure thoughtful, ethical, and equitable development and deployment of AI. Stanford HAI designed this boot camp specifically for congressional staff to explore the latest in AI developments and think critically about governing this emerging technology.

AI is not solely a technical matter. Grasping its societal implications demands a broad spectrum of expertise in areas like computer science, economics, law, medicine, political science, and psychology. Between world-class scholars from Stanford, leaders from Silicon Valley, and pioneers from civil society organizations, we hope to

tap into the knowledge of multidisciplinary AI experts to initiate meaningful conversations and facilitate nuanced policymaking.

The bicameral, bipartisan boot camp consists of many sessions unpacking how to mitigate AI risks and discrimination, understanding and governing foundation models, and the impact of AI on healthcare, education, climate, and democracy. It also includes an interactive, three-hour National Security Council simulation surrounding the deployment of AI in a crisis situation. At the end of the week, staffers will receive a Stanford University certificate of completion of the boot camp signifying your achievement.

We would like to extend a special thank you to our speakers who have taken the time to share their expertise at the boot camp, and to all the congressional staffers who traveled to join us for this program. Finally, we would like to express deep gratitude to our exceptional Stanford HAI staff—especially Jeanina Casusi, Joi Gemigniani, Joe Hinman, Carolyn Lehman, Shana Lynch, Vanessa Parli, Kaci Peel, Sara Shah, Russell Wald, Madeleine Wright, and Daniel Zhang—for all their hard work in organizing this year's boot camp.

We strongly encourage you to voice your questions, concerns, and opinions as this boot camp will be the preeminent place to engage in a robust discussion about governing AI.



Sincerely,



John Etchemendy and Fei-Fei Li,
Denning Co-directors of the Stanford Institute for
Human-Centered Artificial Intelligence.



Daniel Ho testifying at the U.S. Senate Committee on Homeland Security and Governmental Affairs on Artificial Intelligence in Government.

(Photo courtesy of Joy Asico)



Fei-Fei Li and James Manyika speaking at a fireside chat of Stanford HAI's 2022 Congressional Boot Camp on AI.

(Photo courtesy of Christine Baker)



Anna Lembke speaking
at the Stanford HAI 2022
Spring Conference on
Key Advances in Artificial
Intelligence.

*(Photo courtesy of
Christine Baker)*



Chris Manning speaking
at the Stanford HAI 2022
Spring Conference on
Key Advances in Artificial
Intelligence.

*(Photo courtesy of
Christine Baker)*

Boot Camp Agenda

MONDAY, AUGUST 7, 2023

Location: Gates Computer Science Building, 353 Jane Stanford Way, Stanford, CA 94305

| | |
|-------------------|--|
| 11:00am – 11:30am | Welcome Speaker: Russell Wald |
| 11:30am – 12:30pm | Session 1: Mapping the AI Landscape Speaker: Peter Norvig |
| 12:30pm – 1:30pm | Session 2: Mitigating Risk: Implementing Safe and Robust AI Speakers: Mykel Kochenderfer, Alex Tamkin |
| 1:30pm – 1:45pm | Break |
| 1:45pm – 2:45pm | Session 3: The Fuel of AI: Data (and Its Perils) Speakers: Jennifer King, Sanmi (Oluwasanmi) Koyejo, James Zou |
| 2:45pm – 3:30pm | Session 4: Understanding the Basics of Foundation Models Speaker: Percy Liang |
| 3:30pm – 3:45pm | Break |
| 3:45pm – 4:45pm | Session 5: The Governance of Foundation Models Speakers: Rishi Bommasani, Daniel Zhang |
| 4:45pm – 5:30pm | Fireside Chat: Cutting Edge: AI Developments That Are Steering the Future Speakers: Fei-Fei Li, James Manyika |
| 5:30pm – 7:00pm | Dinner |

TUESDAY, AUGUST 8, 2023

Location: Gates Computer Science Building, 353 Jane Stanford Way, Stanford, CA 94305

| | |
|-------------------|--|
| 8:45am – 9:15am | Breakfast/Debrief Speakers: Russell Wald, Daniel Zhang |
| 9:15am – 10:15am | Session 1: The Possibilities and Pitfalls of AI and Climate Sustainability Speakers: Jef Caers, Vanessa Parli, Ram Rajagopal |
| 10:15am – 10:30am | Break |
| 10:30am – 11:30am | Session 2: Revolutionizing the Classroom: How AI Is Advancing Education Speakers: Emma Brunskill, Chris Piech, Shima Salehi |
| 11:30am – 12:30pm | Session 3: Transforming Healthcare Through Innovation Speakers: Alyce Adams, Curtis Langlotz, Sherri Rose, Nigam Shah |
| 12:30pm – 1:00pm | Lunch |

- 1:00pm – 2:00pm **Session 4: The Neuroscience of Addiction and Implications for an AI-Powered Digital World**
Speakers: Jennifer King, Anna Lembke
- 2:00pm – 3:00pm **Session 5: Modernizing a Mammoth: Use Cases of Public Sector AI**
Speaker: Daniel Ho
- 3:00pm – 5:30pm **Hotel Break**
- Location: Vina Enoteca, 700 Welch Rd #110, Palo Alto, CA 94304*
- 6:00pm – 7:45pm **Keynote Dinner: AI, Automation, and the Future of Work**
Speakers: Erik Brynjolfsson, Rohini Kosoglu

WEDNESDAY, AUGUST 9, 2023

Location: Gates Computer Science Building, 353 Jane Stanford Way, Stanford, CA 94305

- 8:00am – 8:30am **Breakfast/Debrief**
Speakers: Russell Wald, Daniel Zhang
- 8:30am – 9:30am **Session 1: Digital Dupes: How AI Is Distorting Truth Through Synthetic Media and Deepfakes**
Speakers: Riana Pfefferkorn, Sara Shah, Michael Tomz
- 9:30am – 11:00am **Simulation: Briefing and Phase 1**
Speakers: Brad Boyd, Oriana Mastro, Harold Trinkunas
Facilitators: Tabatha Anderson, Gaute Friis, Sara Shah, Elliot Stewart
- 11:00am – 11:30am **Working Lunch**
- 11:30am – 1:00pm **Simulation: Phase 2 and Outbrief**
Speakers: Brad Boyd, Oriana Mastro, Harold Trinkunas
Facilitators: Tabatha Anderson, Gaute Friis, Sara Shah, Elliot Stewart
- 1:00pm – 2:00pm **Session 2: The China Challenge**
Speakers: Oriana Mastro, Graham Webster, Daniel Zhang
- 2:00pm – 4:30pm **Hotel Break**

Location: Hoover Traitel Building, 435 Lasuen Mall, Stanford, CA 94305

- 4:30pm – 5:30pm **Session 3: The Role of Business: Policy Implications of Industry Leadership in AI**
Speakers: Chloé Bakalar, Jack Clark, Chris Manning, Rob Reich, Heidi Roizen
- 5:30pm – 6:30pm **Reception**
- 6:30pm – 8:00pm **Keynote Dinner: Democracy in the Age of Algorithms: AI's Impact on Governance**
Speakers: Larry Diamond, Fei-Fei Li, Condoleezza Rice

Congressional Boot Camp on Artificial Intelligence



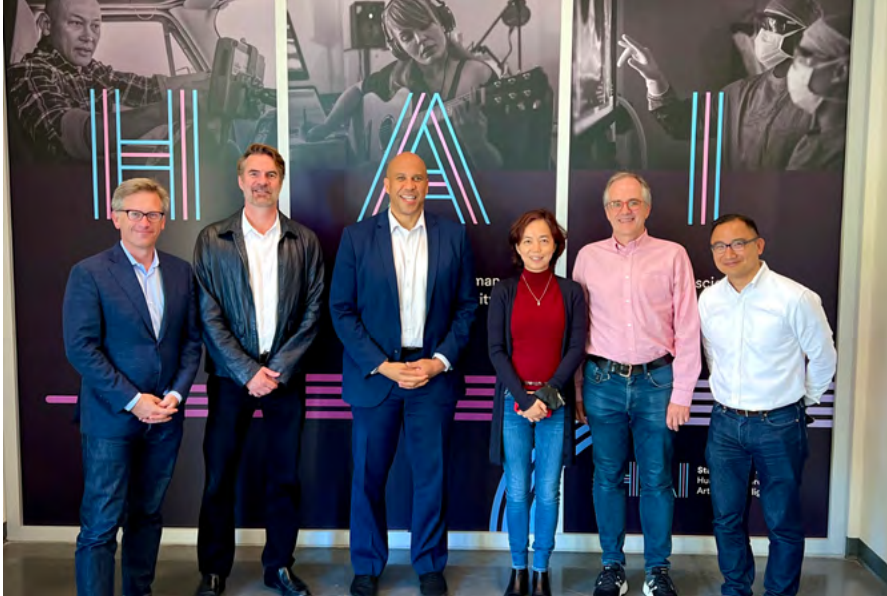
Percy Liang speaking at Stanford HAI's co-hosted summit on AI+Education: AI in the Service of Teaching and Learning.

(Photo courtesy of Christine Baker)



Erik Brynjolfsson speaking at Stanford HAI's 2022 Congressional Boot Camp on AI.

(Photo courtesy of Christine Baker)



Erik Brynjolfsson, Daniel Ho, Fei-Fei Li, Chris Manning, and Rob Reich meeting with Senator Cory Booker at Stanford.



Emma Brunskill speaking at Stanford HAI's co-hosted summit on AI+Education: AI in the Service of Teaching and Learning.

(Photo courtesy of Christine Baker)

Keynote Speakers



Erik Brynjolfsson

Dr. Erik Brynjolfsson is the Jerry Yang and Akiko Yamazaki Professor and Senior Fellow at the Stanford Institute for Human-Centered AI (HAI), and Director of the Stanford Digital Economy Lab. He also serves as the Ralph Landau Senior Fellow at the Stanford Institute for Economic Policy Research (SIEPR), professor by courtesy at the Stanford Graduate School of Business and Stanford Department of Economics, and a research associate at the National Bureau of Economic Research (NBER).

One of the most cited authors on the economics of information, Brynjolfsson was among the first researchers to measure productivity contributions of IT and the complementary role of organizational capital and other intangibles. He has done pioneering research on digital

commerce, the Long Tail, bundling and pricing models, intangible assets, and the effects of IT on business strategy, productivity, and performance.

Brynjolfsson speaks globally and is the author of nine books including, with co-author Andrew McAfee, best-seller *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*, and *Machine, Platform, Crowd: Harnessing Our Digital Future*, as well as over 100 academic articles and five patents. He holds Bachelor's and Master's degrees from Harvard University in applied mathematics and decision sciences and a PhD from MIT in managerial economics.



Larry Diamond

Larry Diamond is a senior fellow at the Hoover Institution and the Mosbacher Senior Fellow in Global Democracy at the Freeman Spogli Institute for International Studies (FSI) at Stanford University. He also chairs the Hoover Institution Project on Taiwan in the Indo-Pacific Region and is the principal investigator of the Global Digital Policy Incubator, part of Stanford's Cyber Policy Center. For more than six years, he directed FSI's Center on Democracy, Development, and the Rule of Law, where he now leads its Program on Arab Reform and Democracy. During 2017–18, he co-chaired, with Orville Schell, a working group formed of researchers from Hoover and from the Asia Society Center on U.S.-China Relations, culminating in the report *China's Influence and American Interests: Promoting Constructing Vigilance* (published by Hoover Institution Press in 2019). He is the founding co-editor

of the *Journal of Democracy* and also serves as senior consultant at the International Forum for Democratic Studies of the National Endowment for Democracy.

Diamond's research focuses on democratic trends and conditions around the world and on policies and reforms to defend and advance democracy. His latest book, *Ill Winds: Saving Democracy From Russian Rage, Chinese Ambition, and American Complacency*, analyzes the challenges confronting liberal democracy in the United States and around the world at this potential "hinge in history," and offers an agenda for strengthening and defending democracy at home and abroad.

Diamond is professor by courtesy of Political Science and Sociology at Stanford University, where he teaches courses on democracy and American foreign policy. He is currently offering Comparative Democratic Development as a massive open online course (MOOC) on the edX platform.



Rohini Kosoglu

Rohini Kosoglu is a leading national expert on domestic policy and a veteran of the White House, Congress, and presidential campaigns. She currently serves as a Policy Fellow at the Stanford Institute for Human-Centered Artificial Intelligence and Director of Public Policy and Political Affairs at the Stanford Byers Center for Biodesign. She is also a Venture Partner at Fusion Fund, a venture firm that focuses on early-stage technology and healthcare investments. Kosoglu has been at the forefront of driving transformative change in social, technology, and economic policy over the last two decades. She also has the distinction of being the first South Asian American woman to hold the roles of both Domestic Policy Advisor to the Vice President and Chief of Staff in the United States Senate.

Kosoglu recently served as Deputy Assistant to the President and Domestic Policy Advisor to the Vice President. In this role, Kosoglu became the first Asian American woman to hold this position. She led and promoted initiatives on behalf of the President and Vice President to strengthen democracy, advance gender and racial equity, and create economic mobility for millions of American workers and families. Kosoglu also served as a key advisor during the creation and implementation of the American Rescue Plan, including the national response to the COVID-19 crisis, the CHIPS Act, the AI Bill of Rights, the bipartisan infrastructure law, and the Cancer Moonshot. On behalf of the Vice President, she helped forge a number of public-private partnerships in the White House, ultimately driving billions of private sector dollars toward national priorities of the President and Vice President, and leveraged the strengths of both the government and private sector. Vice President Harris praised Kosoglu as “a brilliant and trusted leader” who “brought vision, strategic judgment, and a depth of experience as our Administration has addressed some of the most urgent challenges facing our nation.”

Earlier, Kosoglu made history as the first South Asian American woman to serve as Chief of Staff in the United States Senate under then-U.S. Senator Kamala Harris. She managed hearing preparations for some of the highest-profile Senate hearings over the last decade, including investigations around data privacy, cybersecurity, and social media interference during the 2016 U.S. presidential election, as well as Supreme Court nomination hearings. Additionally, under her organizational leadership, the Joint Center for Political and Economic Studies named Harris’ office under Kosoglu’s tenure as the most diverse in the U.S. Senate.



Fei-Fei Li

Fei-Fei Li is the inaugural Sequoia Professor in the Computer Science Department at Stanford University, and Co-director of Stanford's Human-Centered AI Institute. She served as the Director of Stanford's AI Lab from 2013 to 2018. And during her sabbatical from Stanford from January 2017 to September 2018, she was vice president at Google and served as chief scientist of AI/ML at Google Cloud. Li obtained her BA in physics from Princeton in 1999 with high honors, and her PhD in electrical engineering from the California Institute of Technology (Caltech) in 2005. She joined Stanford in 2009 as an assistant professor. Prior to that, she was on faculty at Princeton University (2007–2009) and the University of Illinois Urbana-Champaign (2005–2006).

Li's current research interests include cognitively inspired AI, machine learning, deep learning, computer vision, and AI+healthcare, especially ambient intelligent systems for healthcare delivery. In the past, she has also worked on cognitive and computational neuroscience. Li has published more than 200 scientific articles in top-tier journals and conferences, including *Nature*, *PNAS*, *Journal of Neuroscience*, *CVPR*, *ICCV*, *NIPS*, *ECCV*, *ICRA*, *IROS*, *RSS*, *IJCV*, *IEEE-PAMI*, *New England Journal of Medicine*, *Nature Digital Medicine*, etc. Li is the inventor of ImageNet and the ImageNet Challenge, a critical large-scale dataset and benchmarking effort that has contributed to the latest developments in deep learning and AI. In addition to her technical contributions, she is a national leading voice for advocating diversity in STEM and AI. She is co-founder and chairperson of the national nonprofit AI4ALL, which is dedicated to increasing inclusion and diversity in AI education.

Li is an elected member of the National Academy of Engineering, the National Academy of Medicine and the American Academy of Arts and Sciences. She is also a Fellow of the Association for Computing Machinery (ACM), a member of the Council on Foreign Relations, a recipient of the 2019 IEEE PAMI Longuet-Higgins Prize, 2019 National Geographic Society Further Award, 2017 Athena Award for Academic Leadership, IAPR 2016 J.K. Aggarwal Prize, the 2016 IEEE PAMI Mark Everingham Award, the 2016 Nvidia Pioneer in AI Award, 2014 IBM Faculty Fellow Award, 2011 Alfred Sloan Faculty Award, 2012 Yahoo Labs FREP award, 2009 NSF CAREER award, and the 2006 Microsoft Research New Faculty Fellowship, among others. Li has been a keynote speaker at many academic or influential conferences, including the World Economics Forum (Davos), the Grace Hopper Conference 2017 and the TED2015 main conference. Work from Li's lab has been featured in a variety of magazines and newspapers, including the *New York Times*, *Wall Street Journal*, *Fortune* magazine, *Science*, *Wired* magazine, *MIT Technology Review*, *Financial Times*, and more. She was selected as a 2017 Women in Tech by *Elle* magazine, a 2017 Awesome Women Award by *Good Housekeeping*, a Global Thinker of 2015 by *Foreign Policy*, and one of the "Great Immigrants: The Pride of America" in 2016 by the Carnegie Foundation (past winners include Albert Einstein, Yo-Yo Ma, and Sergey Brin).



James Manyika

As Senior Vice President for Research, Technology, and Society, James Manyika leads efforts to responsibly shape and advance Google and Alphabet's most ambitious innovations to benefit people and impact society for the better. He oversees Google Research, which pursues challenges and breakthroughs in computer science—including in AI, machine learning, algorithms, quantum computing, and responsible AI. He is Chair and Director emeritus of McKinsey Global Institute and Senior Partner emeritus of McKinsey. He is Vice Chair of the National AI Advisory Committee, a member of the National Academies of Science, Engineering and Medicine's Committee on Responsible Computing, a Fellow of the American Academy of Arts and Sciences, a Distinguished Fellow at Oxford Institute for Ethics in AI, and a Distinguished Fellow of Stanford's Human-Centered AI Institute.



Condoleezza Rice

Condoleezza Rice is the Tad and Dianne Taube Director of the Hoover Institution and the Thomas and Barbara Stephenson Senior Fellow on Public Policy. In addition, she is a founding partner of Rice, Hadley, Gates & Manuel, an international strategic consulting firm. From January 2005 to January 2009, Rice served as the 66th Secretary of State of the United States, the second woman and first Black woman to hold the post. Rice also served as President George W. Bush's Assistant to the President for National Security Affairs (National Security Advisor) from January 2001 to January 2005, the first woman to hold the position.

Rice served as Stanford University's provost from 1993 to 1999, during which time she was the institution's chief budget and academic officer. As provost, she was responsible for a \$1.5 billion annual budget and an academic program involving 1,400 faculty members and 14,000 students. In 1997, she also served on the Federal Advisory Committee on Gender-Integrated Training in the Military.

From February 1989 through March 1991, Rice served on President George H.W. Bush's National Security Council staff. She served as Director, then Senior Director, of Soviet and East European Affairs, as well as Special Assistant to the President for National Security Affairs. In 1986, while an International Affairs Fellow of the Council on Foreign Relations, Rice also served as Special Assistant to the Director of the Joint Chiefs of Staff.

Congressional Boot Camp on Artificial Intelligence



Jennifer King speaking
at the 2023 Stanford HAI
Spring Symposium on
Creativity in the Age of AI.

*(Photo courtesy of
Christine Baker)*



Fei-Fei Li with Congressman
Frank Lucas, chairman
of the House Committee
on Science, Space, and
Technology.



Chris Piech speaking
at Stanford HAI's
2021 Hoffman-Yee
Symposium.

*(Photo courtesy of
Christine Baker)*



Fei-Fei Li and Rob Reich
with U.S. President
Joe Biden discussing
U.S. investment and
leadership to unlock AI's
potential.

*(Photo courtesy of
Adam Schultz)*

Session Descriptions:

MONDAY, AUGUST 7

11:00am – 11:30am

Welcome

This session will welcome staffers to Stanford's campus and provide an overview of why this boot camp was created and what Stanford HAI hopes for participants to gain.

Speaker:



Russell Wald, Managing Director for Policy and Society, Stanford HAI

Russell leads the policy and society initiative at HAI, and advances the organization's engagement with civil society and governments worldwide. As a part of HAI's executive management team, Wald sets the strategic vision for policy and societal research, education, and outreach at HAI. He is also a member of the AI Index Steering Committee. Wald has held various policy program and government relations positions at Stanford University for nearly a decade. He is the co-author of various publications on AI, including

Building a National AI Research Resource (2021) and *Enhancing International Cooperation in AI Research: The Case for a Multilateral AI Research Institute* (2022). Wald is a graduate of UCLA.

11:30am –12:30pm Session 1: Mapping the AI Landscape

This session will cover the basic concepts of AI, including compute power, neural networks, narrow vs. general AI, gradient descent, and more. It will also provide a bird's-eye view of the AI landscape, covering different AI techniques such as deep learning, computer vision, natural language processing, and supervised and unsupervised learning. Participants will walk away with a greater understanding of the primary aspects of AI and be better prepared for the boot camp.

Speaker:**Peter Norvig, Distinguished Education Fellow, Stanford HAI**

Peter previously directed Google's core search algorithms group and Google's Research group. He was head of NASA Ames' Computational Sciences Division, where he was NASA's senior computer scientist and a recipient of NASA's Exceptional Achievement Award in 2001. He has taught at the University of Southern California, Stanford University, and the University of California at Berkeley, from which he received a PhD in 1986 and the distinguished alumni award in 2006. He was co-teacher of an Artificial Intelligence class that signed up 160,000 students, helping to kick off the current round of massive open online classes. His publications include the books *Data Science in Context* (to appear in 2022), *Artificial Intelligence: A Modern Approach* (the leading textbook in the field), *Paradigms of AI Programming: Case Studies in Common Lisp*, *Verbmobil: A Translation System for Face-to-Face Dialog*, and *Intelligent Help Systems for UNIX*. He is also the author of the Gettysburg Powerpoint Presentation and the world's longest palindromic sentence. He is a fellow of the AAAI, ACM, California Academy of Science and American Academy of Arts and Sciences.

12:30pm – 1:30pm Mitigating Risk: Implementing Safe and Robust AI

The consequences of deploying robust AI and decision-making technologies in safety-critical systems such as driverless vehicles and autonomous aircraft are enormous. Challenges for AI developers range from biased inputs, constantly evolving conditions, and explainability issues, among others. This session will discuss the obstacles developers face as well as the difficult—and often politically fraught—decisions they make around operational efficiency and how they define acceptable risk parameters.

Speakers:



Mykel Kochenderfer, Associate Professor of Aeronautics and Astronautics and, by courtesy, of Computer Science, Stanford University; Faculty Affiliate, Stanford HAI

Prior to joining the Stanford faculty, Mykel was at MIT Lincoln Laboratory, where he worked on airspace modeling and aircraft collision avoidance, with his early work leading to the establishment of the ACAS X program. He received a PhD from the University of Edinburgh and BS and MS degrees in computer science from Stanford University. Professor Kochenderfer is the director of the Stanford Intelligent Systems Laboratory (SISL), conducting research on advanced algorithms and analytical methods for the design of robust decision-making systems. Research at SISL focuses on efficient computational methods for deriving optimal decision strategies from high-dimensional, probabilistic problem representations. He is an author of *Decision Making Under Uncertainty: Theory and Application* (2015), *Algorithms for Optimization* (2019), and *Algorithms for Decision Making* (2022), all from MIT Press. He is a third generation pilot.



Alex Tamkin, Computer Science PhD '23, Stanford University

Alex is a graduate of the PhD program in Computer Science at Stanford, where he was part of the Stanford AI Lab and the Stanford NLP Group. His research focuses on making foundation models safe and useful in the real world; for example, in engineering, natural sciences, or healthcare applications. He studies language models as well as general machine learning techniques that are broadly applicable to other kinds of data (e.g. images, organic molecules, astronomical data, satellite imagery, wearable sensors, and more).

1:30pm – 1:45pm Break

1:45pm – 2:45pm

Session 3: The Fuel of AI: Data (and Its Perils)

Contemporary AI technologies run on data, but AI developers face significant obstacles in acquiring and cleaning data. In addition, developers must do their best to ensure data's inherent biases (and their nonobvious proxies) are accounted for in their AI systems. Moreover, different social values around privacy, data ownership, and data creation impact what AI technologies are possible. This session will dive into how the data policies developed today will shape the technologies of tomorrow.

Speakers:

Jennifer King (moderator),
Privacy and Data Policy
Fellow, Stanford HAI

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. King completed both her PhD and master's degree in information management and systems at the University of California, Berkeley, School of Information.



Sanmi (Oluwasanmi) Koyejo,
Assistant Professor of
Computer Science, Stanford
University; Faculty Affiliate,
Stanford HAI

Sanmi (Oluwasanmi) Koyejo
is an Assistant Professor in

the Department of Computer Science at Stanford University. Koyejo was previously an Associate Professor in the Department of Computer Science at the University of Illinois at Urbana-Champaign. Koyejo's research interests are in developing the principles and practice of trustworthy machine learning, focusing on applications to neuroscience and healthcare. Koyejo completed a PhD at the University of Texas at Austin, and postdoctoral research at Stanford University. Koyejo has been the recipient of several awards, including a best paper award from the conference on uncertainty in artificial intelligence, a Skip Ellis Early Career Award, a Sloan Fellowship, a Terman faculty fellowship, an NSF CAREER award, a Kavli Fellowship, an IJCAI early career spotlight, and a trainee award from the Organization for Human Brain Mapping. Koyejo spends time at Google as a part of the Brain team, serves on the Neural Information Processing Systems Foundation Board, the Association for Health Learning and Inference Board, and as president of the Black in AI organization.

1:45pm – 2:45pm **Session 3, continued**

Speakers:



James Zou, Assistant Professor of Biomedical Data Science, Stanford University;
Faculty Affiliate, Stanford HAI

James Zou is also a Chan-Zuckerberg investigator, and the faculty director of Stanford AI for Health. As a technologist, Zou develops novel machine learning algorithms that have strong statistical guarantees and are motivated by human health challenges. Several of his methods are widely used in industry—including in tech, biotech, insurance, and more. He also works on questions important for the broader impacts of AI—fairness, accountability, interpretations, robustness, and the economic impacts of data and AI to firms and industry.

2:45pm – 3:30pm **Session 4: Understanding the Basics of Foundation Models**

Recently, a new successful paradigm for building AI systems has emerged: train one model on a huge amount of data and adapt it to numerous applications. We have deemed such a model a *foundation model*. This session unpacks how foundation models were created and deployed, the requirements to build one, expected and unexpected consequences of these models, and other hot topics surrounding the use of large AI models.

Speaker:



Percy Liang, Associate Professor of Computer Science, Stanford University; Director,
Stanford Center for Research on Foundation Models; Faculty Affiliate, Stanford HAI

Percy Liang is an Associate Professor of Computer Science at Stanford University (BS from MIT, 2004; PhD from UC Berkeley, 2011). His two research goals are (i) to make machine learning more robust, fair, and interpretable; and (ii) to make computers easier to communicate with through natural language. His awards include the Presidential Early Career Award for Scientists and Engineers (2019), IJCAI Computers and Thought Award (2016), an NSF CAREER Award (2016), a Sloan Research Fellowship (2015), and a Microsoft Research Faculty Fellowship (2014).

3:30pm – 3:45pm **Break**

3:45pm – 4:45pm **Session 5: The Governance of Foundation Models**

Foundation models are at the center of the global discourse on AI: the emerging technological paradigm has a concrete and growing impact on the economy, policy, and society. As governments around the world explore governance initiatives regarding the ethical and responsible deployment of foundation models, this session analyzes the evolving landscape of regulations, guidelines, and best practices and provides insights into key considerations for effective governance, including transparency, accountability, and inclusivity.

Speakers:



Rishi Bommasani,
Society Lead, Stanford Center
for Research on Foundation
Models; PhD Candidate of
Computer Science, Stanford
University

Rishi broadly focuses on the societal impact of AI, often by leading large-scale collaborations and building interdisciplinary teams, including an introduction to the foundation model landscape and the holistic evaluation of foundation models. More specifically, he works on questions of transparency, harm, governance, policy, and power in relation to foundation models.

Bommasani earned a BA in mathematics and computer science and an MS in computer science from Cornell University, where he was advised by Claire Cardie. His research focuses on understanding AI systems and their societal impact, as well as using NLP to further scientific inquiry.



Daniel Zhang,
Senior Manager for Policy
Initiatives, Stanford HAI

Daniel leads HAI's policy research, outreach, and education initiatives. With the goal of developing evidence-based AI policy recommendations, his research interests lie at the intersection of technology policy, governance, and societal impact, including translational and original research on AI regulation and standards, the geopolitical implication of emerging technology, and the governance of large-scale ML models. Daniel is also a member of the High-Level Expert Group on AI Ethics at UNESCO, advising the agency on the implementation of its Recommendation on the Ethics of AI. Previously, he was the manager of the AI Index, where he lead-authored the 2021 and 2022 annual reports that measure and evaluate the rapid rate of AI advancement.

4:45pm – 5:30pm

Keynote Fireside Chat: Cutting Edge: AI Developments That Are Steering the Future

The rapid advancements in AI in recent years have shocked the world. From models generating realistic images from scratch to ambient technologies that enhance the human condition, the possibilities of what AI can do for humanity are endless. Understanding today's cutting-edge AI will help steer tomorrow's innovation. This session will dive into what is on the horizon of AI advancements and how these technologies can be leveraged to benefit society.

Speakers:



Fei-Fei Li,
Sequoia Professor of
Computer Science, Stanford
University; Denning
Co-Director, Stanford HAI
See biography on page 14.



James Manyika,
Vice Chair, National Artificial
Intelligence Advisory
Committee; Advisory Council
Member, Stanford HAI; Senior
Vice President, Research,
Technology, and Society,
Google
See biography on page 15.

5:30pm – 7:00pm

Dinner

TUESDAY, AUGUST 8, 2023

8:45am – 9:15am

Breakfast/Debrief

Stanford HAI staff will lead a discussion debriefing the key concepts that staffers learned in earlier sessions. They will also offer a preview of Day 2 and leave ample time for questions.

Speaker:



Russell Wald,
Managing Director
for Policy and Society,
Stanford HAI
*See biography on
page 19.*



Daniel Zhang,
Senior Manager for
Policy Initiatives,
Stanford HAI
*See biography on
page 24.*

9:15am – 10:15am

Session 1: The Possibilities and Pitfalls of AI and Climate Sustainability

The risks and threats stemming from global climate change are becoming a growing issue for policymakers. At the same time, the rapid advancements of AI have presented possible opportunities to use this technology to help tackle our greatest climate challenges, from achieving net-zero emissions to preparing for extreme weather events. Conversely, AI continues to increasingly rely on compute power, which is an energy-intensive resource and contributes to the emission of CO₂. As a result, there is mounting concern around AI's environmental impact, drawing attention to the cost-benefit analysis of AI advancements. This session will unpack how AI can be used to help confront climate change while also better understanding AI's own ripple effects in the environment.

9:15am – 10:15am Session 1, continued

Speakers:



Jef Caers, Professor of Earth and Planetary and, by courtesy, of Geophysics, Stanford University; Faculty Affiliate, Stanford HAI

Jef Caers received both an MSc ('93) in mining engineering / geophysics and a PhD ('97) in mining engineering from the Katholieke Universiteit Leuven, Belgium. Currently, he is Professor of Earth and Planetary at Stanford University. Jef Caers' research interests are decision-making under uncertainty in developing the critical mineral supply as well as geothermal energy required to transition to 100% renewable energy. Jef Caers is founder of the Mineral-X initiative, a community-building effort to strengthen stewardship for a prosperous future for all, powered by Earth's minerals. Jef Caers has published in a diverse range of journals covering Mathematics, Statistics, Earth Sciences, Engineering and Computer Science. Jef Caers has received several best paper awards and authored or co-authored five books entitled *Petroleum Geostatistics* (SPE, 2005), *Modeling Uncertainty in the Earth Sciences* (Wiley-Blackwell, 2011), *Multiple-point Geostatistics: Stochastic Modeling With Training Images* (Wiley-Blackwell, 2015), *Quantifying Uncertainty in Subsurface Systems* (Wiley-Blackwell, 2018), *Data Science for the Geosciences* (Cambridge UP, 2023). He was awarded the Krumbein Medal of the IAMG for his career achievement.



Vanessa Parli (moderator), Director of Research, Stanford HAI

Vanessa leads the HAI grant programs, research convenings, student groups and "state of AI" reports such as the AI 100 and the AI Index, where she is a member of the Steering Committee. Her team also analyzes the effectiveness of these programs to continuously improve HAI's ability to foster interdisciplinary research collaborations internal and external to Stanford. Prior to Stanford, Vanessa worked in management consulting, where she utilized statistics, machine learning, and other data science methodologies to advise government agencies, large biotech companies, and nonprofit organizations. Vanessa holds an MS in Engineering Management and Computational Mathematics from Johns Hopkins University and a BA in Industrial Engineering from Arizona State University.



Ram Rajagopal, Associate Professor of Civil and Environmental Engineering, Stanford University; Faculty Affiliate, Stanford HAI

Ram Rajagopal directs the Stanford Sustainable Systems Lab (S3L), focused on large-scale monitoring, data analytics, and stochastic control for infrastructure networks, in particular, power networks. His current research interests in power systems are in the integration of renewables, smart distribution systems, and demand-side data analytics.

He holds a PhD in Electrical Engineering and Computer Sciences and an MA in Statistics, both from the University of California, Berkeley, Master's in Electrical and Computer Engineering from University of Texas, Austin, and Bachelor's in Electrical Engineering from the Federal University of Rio de Janeiro. He is a recipient of the NSF CAREER Award, Powell Foundation Fellowship, Berkeley Regents' Fellowship and the Makhoul Conjecture Challenge award. He holds more than 30 patents and several best paper awards from his work and has advised or founded various companies in the fields of sensor networks, power systems, and data analytics.

10:15am – 10:30am**Break**

10:30am – 11:30am**Session 2: Revolutionizing the Classroom: How AI Is Advancing Education**

AI has the potential to dramatically improve education. From teacher support to personalized student engagement, AI could democratize extraordinary teaching and learning. But dangers and concerns loom. Collecting data from children raises privacy concerns, and current inequities in the education system might be exacerbated by the introduction of AI. This session will look into how AI can be leveraged to improve the education system without causing harm to teachers and students.

Speakers:

Emma Brunskill, Associate Professor of Computer Science, Stanford University; Faculty Affiliate, Stanford HAI

Emma Brunskill's goal is to create AI systems that learn from few samples to robustly make good decisions, motivated by applications to healthcare and education. Brunskill's lab is part of the Stanford AI Lab, the Stanford Statistical ML group, and AI Safety @Stanford.

Brunskill was previously an assistant professor at Carnegie Mellon University. Brunskill's work has been honored by early faculty career awards (National Science Foundation, Office of Naval Research, Microsoft Research (one of seven worldwide) and, together with her lab members, she has received several best research paper nominations (CHI, EDMx3) and awards (UAI, RLDM, ITS). Brunskill is privileged to serve on the International Machine Learning Society (which coordinates ICML) Board, the Khan Academy Research Advisory Board, and the Stanford Faculty Women's Forum Steering Committee. Brunskill previously served on the Women in Machine Learning (WIML) board.



Chris Piech, Assistant Professor of Computer Science, Stanford University; Faculty Affiliate, Stanford HAI

Chris runs a lab in the computer science department at Stanford to research how humans can use machine learning to make high quality human learning openly accessible. He has an incredible passion and energy for teaching. He was born and grew up in Nairobi, Kenya before moving to Kuala Lumpur, Malaysia where he lived until he came to Stanford for university, liked it a lot and stayed. Chris loves exploring our world (through both science and traveling). His research is in machine learning to understand human learning. He has lectured and run programs for CS Bridge in Istanbul, Prague and Bogotá.

10:30am – 11:30am Session 2, continued

Speakers:



Shima Salehi (moderator), Assistant Professor of Research, Stanford Graduate School of Education; Director, Stanford IDEAL Research Lab

Shima Salehi is the director of IDEAL research lab, the research component of Stanford IDEAL initiative to promote inclusivity, diversity, equity and access in learning communities. Her research focuses on how to use different instructional practices to teach science and engineering more effectively and inclusively. For effective science and engineering education, Dr. Salehi has studied effective scientific problem-solving and developed empirical framework for main problem-solving practices to train students in. Based on these findings, she has designed instructional activities to provide students with explicit opportunities to learn these problem-solving practices. These activities have been implemented in different science and engineering courses. For Inclusive science and engineering, she examines different barriers for equity in STEM education and through what instructional and/or institutional changes they can be addressed. Her recent works focus on what are the underlying mechanisms for demographic performance gaps in STEM college education, and what instructional practices better serve students from different demographic backgrounds. Salehi holds a PhD in Learning Sciences and a PhD minor in Psychology from Stanford University, and received a BSc degree in Electrical Engineering from Sharif University of Technology, Iran. She is the founder of KhanAcademyFarsi, a non-profit educational organization which has provided service to Farsi-speaking students, particularly in under-privileged areas.

11:30am – 12:30pm Session 3: Transforming Healthcare Through Innovation

Some of the most exciting advances of this technological wave are focused on healthcare: faster and better diagnoses, enhanced therapies, increased hospital standards which reduce patient harms, and protein folding which has the potential to cure debilitating diseases. Healthcare is on the cusp of a revolution that will advance human well-being. At the same time, the United States faces an incredible shortage of qualified healthcare workers, lacks proper evaluation of medical devices, and struggles with unclear liability risk/clinician responsibility. These mounting challenges raise the question, can AI help “save” the U.S. healthcare system? This session will highlight the coming changes in healthcare, the opportunities and risks AI presents, and how policies can ensure safe and robust health systems.

Speakers:


Alyce Adams, Medicine Innovation Professor, Professor of Epidemiology and Population Health, of Health Policy, and, by courtesy, of Pediatrics, Stanford University

Dr. Adams also serves as Associate Chair for Health Equity and Community Engagement for Stanford Health Policy, Associate Director for Health Equity and Community Engagement in the Stanford Cancer Institute, and as Associate Director for Stanford Impact Labs. Focusing on racial and socioeconomic disparities in chronic disease treatment outcomes, Dr. Adams' interdisciplinary research seeks to evaluate the impact of changes in drug coverage policy

on access to essential medications, understand the drivers of disparities in treatment adherence among insured populations, and test strategies for maximizing the benefits of treatment outcomes while minimizing harms through informed decision-making. Prior to joining Stanford School of Medicine, Dr. Adams was Associate Director for Health Care Delivery and Policy and a Research Scientist at the Kaiser Permanente Division of Research, as well as a Professor at the Bernard J. Tyson Kaiser Permanente School of Medicine. From 2000 to 2008, she was an Assistant Professor in the Department of Population Medicine (formerly Ambulatory Care and Prevention) at Harvard Medical School and Harvard Pilgrim Health Care. She received her PhD in Health Policy and an MPP in Social Policy from Harvard University. She is a member of the Board of Directors for AcademyHealth and a former recipient of the John M. Eisenberg Excellence in Mentoring Award from the Agency for Healthcare Research and Quality.

11:30am – 12:30pm Session 3, continued

Speakers:



Curtis Langlotz, Professor of Radiology and Biomedical Informatics, Stanford University; Director, Center for Artificial Intelligence in Medicine and Imaging; Associate Director, Stanford HAI

Dr. Langlotz's laboratory investigates the use of deep neural networks and other machine learning technologies to help radiologists detect disease and eliminate diagnostic errors. He has led many national and international efforts to improve the quality of radiology communication, including the RadLex™ terminology standard, the RadLex™ Playbook of radiology exam codes, the RSNA report template library, and a technical standard for communication of radiology templates. He has published over 100 scholarly articles, and is author of the recent book *The Radiology Report: A Guide to Thoughtful Communication for Radiologists and Other Medical Professionals*.

Raised in St. Paul, Minnesota, Dr. Langlotz received his undergraduate degree in Human Biology, Master's in Computer Science, MD in Medicine, and PhD in Medical Information Science, all from Stanford University. He is a founder and past president of the Radiology Alliance for Health Services Research (RAHSR), and has served as president of the Society for Imaging Informatics in Medicine (SIIM), and the College of SIIM Fellows. He is a former board member of the Association of University Radiologists (AUR), the American Medical Informatics Association (AMIA), and the Society for Medical Decision Making (SMDM). He currently serves on the board of directors of the Radiological Society of North America (RSNA) as Liaison for Information Technology.

He is a recipient of the Lee B. Lusted Research Prize from the Society of Medical Decision Making and the Career Achievement Award from the Radiology Alliance for Health Services Research. He has founded three healthcare information technology companies, most recently Montage Healthcare Solutions, which was acquired by Nuance Communications in 2016.

11:30am – 12:30pm Session 3, continued
Speakers:


Sherri Rose (moderator), Professor of Health Policy, Stanford University;
Co-director, Stanford Health Policy Data Science Lab; Faculty Affiliate, Stanford HAI

Sherri Rose, PhD, focuses on developing and integrating innovative statistical machine learning approaches to improve human health and health equity. Within health policy, Dr. Rose works on risk adjustment, ethical algorithms in healthcare, comparative effectiveness research, and health program evaluation. She has published interdisciplinary projects across varied outlets, including *Biometrics*, *Journal of the American Statistical Association*, *Journal of Health Economics*, *Health Affairs*, and *New England Journal of Medicine*. In 2011, Dr. Rose co-authored the first book on machine learning for causal inference, with a sequel text released in 2018. She has been Co-Editor-in-Chief of the journal *Biostatistics* since 2019.

Her honors include an NIH Director's Pioneer Award, NIH Director's New Innovator Award, the ISPOR Bernie J. O'Brien New Investigator Award, and Mid-Career Awards from the American Statistical Association's Health Policy Statistics Section, Washington Statistical Society/RTI-International, and Penn-Rutgers Center for Causal Inference. Dr. Rose was named a Fellow of the American Statistical Association in 2020, and she received the 2021 Mortimer Spiegelman Award, which recognizes the statistician under age 40 who has made the most significant contributions to public health statistics.

Dr. Rose comes from a low-income background and is committed to increasing justice, equity, diversity, and inclusion (JEDI) in the mathematical and health sciences. Included in this work are her roles as founding Co-director of the Stanford Population Health Summer Research Program: Advancing Health Equity and Diversity (AHEaD) and Co-chair of Stanford Health Policy's JEDI Committee. As Chair of the American Statistical Association's Biometrics Section, she established the Annie T. Randall Innovator Award, which honors Mrs. Randall's pioneering career in government amid pervasive racism and recognizes early career trailblazers.



Nigam Shah, Professor of Medicine (Biomedical Informatics) and of Biomedical Data Science, Stanford University; Chief Data Scientist, Stanford Health Care; Faculty Affiliate, Stanford HAI

Dr. Nigam Shah's research group analyzes multiple types of health data (EHR, Claims, Wearables, Weblogs, and Patient blogs), to answer clinical questions, generate insights, and build predictive models for the learning health system. At Stanford Healthcare, he leads artificial intelligence and data science efforts for advancing the scientific understanding of disease, improving the practice of clinical medicine, and orchestrating the delivery of healthcare.

Dr. Shah is an inventor on eight patents and patent applications, has authored over 200 scientific publications, and has co-founded three companies. Dr. Shah was elected into the American College of Medical Informatics (ACMI) in 2015 and was inducted into the American Society for Clinical Investigation (ASCI) in 2016. He holds an MBBS from Baroda Medical College, India, a PhD from Penn State University, and completed postdoctoral training at Stanford University.

12:30pm – 1:00pm

Lunch

1:00pm – 2:00pm

Session 4: The Neuroscience of Addiction and Implications for an AI-Powered Digital World

This is a time of unprecedented access to high-reward, high-dopamine stimuli: drugs, food, news, gambling, shopping, gaming, texting, Facebooking, Instagramming, YouTubing, tweeting. ... The increased numbers, variety, and potency are staggering, exacerbated by the integration of AI on those platforms. As such, we've all become vulnerable to compulsive overconsumption. Yet, it is possible to find contentment and connectedness by keeping dopamine in check. This session will provide a practical, science-informed approach to addressing the impact of AI on addiction and the compulsive overconsumption of everything from food, to sex, to video games.

Speakers:



Jennifer King (moderator), Privacy and Data Policy Fellow, Stanford HAI
See biography on page 22.



Anna Lembke, Professor of Psychiatry and Behavioral Science, Stanford School of Medicine; Chief of the Stanford Addiction Medicine Dual Diagnosis Clinic

Dr. Anna Lembke received her undergraduate degree in Humanities from Yale University and her medical degree from Stanford University. She is a diplomate of the American Board of Psychiatry and Neurology, and a diplomate of the American Board of Addiction Medicine.

Dr. Lembke was one of the first in the medical community to sound the alarm regarding opioid overprescribing and the opioid epidemic. In 2016, she published her best-selling book on the prescription drug epidemic, *Drug Dealer, MD—How Doctors Were Duped, Patients Got Hooked, and Why It's So Hard to Stop* (Johns Hopkins University Press, 2016). Her book was highlighted in the New York Times as one of the top five books to read to understand the opioid epidemic (Zuger, 2018).

Using her public platform and her faculty position at Stanford University School of Medicine, Dr. Lembke has developed multiple teaching programs on addiction and safe prescribing, as well as opioid tapering. She has held multiple leadership and mentorship positions and received the Stanford's Chairman's Award for Clinical Innovation and the Stanford Departmental Award for Outstanding Teaching. Dr. Lembke continues to educate policymakers and the public about causes of and solutions for the problem of addiction.

Her latest book, *Dopamine Nation: Finding Balance in the Age of Indulgence* (Dutton/Penguin Random House, August 2021) explores how to moderate compulsive overconsumption in a dopamine-overloaded world.

2:00pm – 3:00pm Session 5: Modernizing a Mammoth: Use Cases of Public Sector AI

The U.S. government is in great need of a technological upgrade. From streamlining administrative processes to providing personalized services to constituents, there is ample opportunity for AI to help government agencies achieve their missions. However, integrating AI into the government is not as easy as obtaining and deploying the technology. Talent, infrastructure, public trust, and morale play equally important roles in ensuring the successful modernization of government. This session will dive into current use cases of AI in government, the challenges and successes of these cases, and how to improve the integration of new technologies that will help the government serve its citizens.

Speakers:

Daniel Ho, William Benjamin Scott and Luna M. Scott Professor of Law, Stanford Law School; Director, Stanford Regulation, Evaluation, and Governance Lab; Faculty Associate Director, Stanford HAI

Daniel Ho's scholarship focuses on administrative law, regulatory policy, and antidiscrimination law. With the RegLab, his work has developed high-demonstration projects of data science and machine learning in public policy, through partnerships with a range of government agencies, including the Internal Revenue Service, the Treasury

Department, the Environmental Protection Agency, the Department of Labor, the Santa Clara County Public Health Department, and Seattle and King County Public Health.

He serves as an appointed member to the National Artificial Intelligence Advisory Commission (NAIAC), advising the White House National AI Initiative Office, and as Senior Advisor on Responsible AI to the U.S. Department of Labor. He is also a member of the Committee on National Statistics (CNSTAT) of the National Academies of Science, Engineering, and Medicine and a Public Member of the Administrative Conference of the United States (ACUS).

He received his JD from Yale Law School and PhD from Harvard University and clerked for Judge Stephen F. Williams on the U.S. Court of Appeals, District of Columbia Circuit.

3:00pm – 5:30pm Hotel Break

6:00pm – 7:45pm

Keynote Dinner: AI, Automation, and the Future of Work

AI and automation will have a rippling effect on today's workforce and the future of work. Mainstream narratives forecast that AI will displace workers and funnel profits up to a select few. Alternatively, AI has the potential to augment and supercharge labor, ensuring the benefits of AI are spread and enjoyed widely. This session dives into deeper detail regarding what exactly we should expect as AI and automation integrate into the economy and the subsequent consequences for the workforce. The panelists will also discuss how policies can reshape and guide what the future holds.

Speakers:



Erik Brynjolfsson,
Director, Stanford Digital
Economy Lab; Jerry
Yang and Akiko Yamazaki
Professor and Senior
Fellow, Stanford HAI;
Ralph Landau Senior
Fellow, Stanford Institute
for Economic Policy
Research
See biography on page 11.



Rohini Kosoglu, Former
Deputy Assistant to the
President and Domestic Policy
Advisor to the Vice President,
the White House; Policy
Fellow, Stanford HAI
See biography on page 13.

WEDNESDAY, AUGUST 9, 2023

8:00am – 8:30am**Breakfast/Debrief**

Stanford HAI staff will lead a discussion reviewing key concepts from the first two days of the boot camp. They will also offer a preview of Day 3 and leave ample time for questions.

Speakers:

Russell Wald,
Managing Director
for Policy and Society,
Stanford HAI
*See biography on
page 19.*



Daniel Zhang,
Senior Manager for
Policy Initiatives,
Stanford HAI
*See biography on
page 24.*

8:30am – 9:30am**Session 1: Digital Dupes: How AI is Distorting Truth Through Synthetic Media and Deepfakes**

The rapid spread of disinformation has challenged societies and deepened mistrust, threatening to erode democratic values. Furthermore, synthetic media from the advent of generative AI has created deceptively realistic images and videos—known as deepfakes—that are indistinguishable from reality. These developments are leading to an information crisis where consumers are becoming less certain of the veracity of the content they encounter. This session will dive into how AI has changed the information economy and how policy can help protect people from fake content.

Speakers:

Riana Pfefferkorn, Research Scholar, Stanford Internet Observatory

Riana Pfefferkorn investigates the U.S. and other governments' policies and practices for forcing decryption and/or influencing the security design of online platforms and services, devices, and products, both via technical means and through the courts and legislatures. Riana also studies novel forms of electronic surveillance and data access by U.S. law enforcement and their impact on civil liberties.

Previously, Riana was the Associate Director of Surveillance and Cybersecurity at the Stanford Center for Internet and Society, where she remains an affiliate. Prior to joining Stanford, she was an associate in the Internet Strategy and Litigation group at the law firm of Wilson Sonsini Goodrich & Rosati, and a law clerk to the Honorable Bruce J. McGiverin of the U.S. District Court for the District of Puerto Rico. During law school, she interned for the Honorable Stephen Reinhardt of the U.S. Court of Appeals for the Ninth Circuit.

Riana has spoken at various legal and security conferences, including Black Hat and DEF CON's Crypto and Privacy Village. She is frequently quoted in the press, including the *New York Times*, the *Washington Post*, and NPR. Riana is a graduate of the University of Washington School of Law and Whitman College.

8:30am – 9:30am Session 1, continued

Speakers:



Sara Shah (moderator), Ford Dorsey Master's in International Policy Class of 2024, Stanford Freeman Spogli Institute for International Studies

Sara Shah focuses on trust and safety issues and online harm at Stanford through work with the Stanford Internet Observatory and Stanford HAI. She most recently served in the Biden-Harris administration as Special Assistant to the U.S. Secretary of Homeland Security. At DHS, Sara played a central role in the Department's efforts to support the U.S. withdrawal from Afghanistan and prepare the nation's cyberdefenses in the wake of the Russian invasion of Ukraine. Her portfolio included national security, cybersecurity, foreign policy, privacy, civil rights and civil liberties, influence operations, child sexual exploitation and abuse, and international migration.

Prior to her time in the Biden-Harris administration, Sara worked for several years at the Council on Foreign Relations and Albright Stonebridge Group. She coordinated and co-drafted the Think Tank Diversity Action Statement in 2020, signed by over 400 policy professionals. Sara holds a BA in international studies from Johns Hopkins University. Her senior thesis exposed cleavages within ISIS' female recruitment strategies on social media.



Michael Tomz, William Bennett Munro Professor of Political Science, Stanford University; Senior Fellow, Stanford Institute for Economic Policy Research; Faculty Affiliate, Stanford HAI

Michael Tomz has published in the fields of international relations, American politics, comparative politics, and statistical methods. He is the author of *Reputation and International Cooperation: Sovereign Debt Across Three Centuries* and numerous articles in political science and economics journals. He is also a Senior Fellow at the Stanford Institute for Economic Policy Research, a Senior Fellow at the Stanford Center on Global Poverty and Development, and the Landreth Family University Fellow in Undergraduate Education.

Tomz received the International Studies Association's Karl Deutsch Award, given to a scholar who, within 10 years of earning a PhD, has made the most significant contribution to the study of international relations. He has also won the Giovanni Sartori Award for the best book developing or applying qualitative methods; the Jack L. Walker Award for the best article on Political Organizations and Parties; the best paper award from the APSA section on Elections, Public Opinion, and Voting Behavior; the best paper award from the APSA section on Experimental Research; and the Okidata Best Research Software Award. His research has been supported by the National Science Foundation.

Tomz holds a PhD from Harvard University; a master's degree from the University of Oxford, where he was a Marshall Scholar; and an undergraduate degree from Georgetown University. He has been a visiting scholar at the Center for Advanced Study in the Behavioral Sciences, the Federal Reserve Bank of Minneapolis, the Hoover Institution, the Institute for Research in the Social Sciences, and the International Monetary Fund.

9:30am – 11:00am Simulation: Briefing and Phase 1

In this three-hour National Security Council simulation, staffers will respond to a crisis situation in the Taiwan Strait involving the potential deployment of AI for national security purposes.

Run by:**Brad Boyd, Visiting Fellow, Hoover Institution**

Boyd's research interests focus on the integration of emerging technology into warfare and national security. Boyd is particularly interested in the rise of automation and autonomy in military systems, to include decision-making, planning, information operations, enterprise operations, and weaponry. Boyd also looks at the way U.S., Chinese, and Russian military integration of emerging technology affects military, economic, and social stability.

Prior to joining Hoover, Boyd served as a defense and foreign policy advisor to Senator Angus King and as Senator King's representative to the Cyberspace Solarium Commission. Boyd also served as the director of AI-enabled warfighting capability development at the U.S. Department of Defense's Joint Artificial Intelligence Center and as the director of General Mark A. Milley's coordination group.

Boyd was a senior military fellow at Stanford's Center for International Security and Cooperation and a Seminar XXI Fellow at Massachusetts Institute of Technology.

**Oriana Mastro, Center Fellow, Stanford Freeman Spogli Institute for International Studies**

Oriana Skylar Mastro is a Center Fellow at Stanford University's Freeman Spogli Institute for International Studies, where her research focuses on Chinese military and security policy, Asia-Pacific security issues, war termination, nuclear dynamics, and coercive diplomacy. She is also a Non-resident Senior Fellow at the American Enterprise Institute and continues to serve in the United States Air Force Reserve, for which she works as a strategic planner at INDOPACOM.

She has received numerous awards for her military service and contributions to U.S. strategy in Asia, including the 2020 and 2018 Meritorious Service Medal, the 2017 Air Force recognition Ribbon, and the 2016 Individual Reservist of the Year Award. She has won a number of other prestigious awards, including the 2016–2017 Stanton Nuclear Security Fellowship at the Council of Foreign Relations.

Prior to her appointment at Stanford in August 2020, Mastro was an assistant professor of security studies at the Edmund A. Walsh School of Foreign Service at Georgetown University. She holds a BA in East Asian Studies from Stanford University and an MA and PhD in Politics from Princeton University.

9:30am – 11:00am Simulation: Briefing and Phase 1, continued

Run by:



Harold Trinkunas, Deputy Director and Senior Research Scholar, Stanford Center for International Security and Cooperation

Harold Trinkunas is the Deputy Director of and a Senior Research Scholar at the Center for International Security and Cooperation at the Freeman Spogli Institute for International Studies at Stanford University. Prior to arriving at Stanford, Dr. Trinkunas served as the Charles W. Robinson Chair and senior fellow and director of the Latin America Initiative in the Foreign Policy program at the Brookings Institution. His research focuses on issues related to foreign policy, governance, and security, particularly in Latin America. Trinkunas has written on emerging powers and the international order, ungoverned spaces, terrorism financing, borders, and armed non-state actors.

Trinkunas co-authored *Militants, Criminals and Warlords: The Challenge of Local Governance in an Age of Disorder* (Brookings Institution Press, 2017), *Aspirational Power: Brazil's Long Road to Global Influence* (Brookings Institution Press, 2016) and authored *Crafting Civilian Control of the Military in Venezuela* (University of North Carolina Press, 2005). He co-edited and contributed to *Three Tweets to Midnight: The Effects of the Global Information Ecosystem on the Risk of Nuclear Conflict* (Hoover Institution Press, 2020); *American Crossings: Border Politics in the Western Hemisphere* (Johns Hopkins University Press, 2015), *Ungoverned Spaces: Alternatives to State Authority in an Era of Softened Sovereignty* (Stanford University Press, 2010), *Global Politics of Defense Reform* (Palgrave MacMillan, 2008), and *Terrorism Financing and State Responses* (Stanford University Press, 2007).

Dr. Trinkunas has also previously served as an associate professor and chair of the Department of National Security Affairs at the Naval Postgraduate School in Monterey, California. He received his doctorate in political science from Stanford University in 1999. He was born in Maracaibo, Venezuela.

Facilitators:

Tabatha Anderson, Ford Dorsey Master's in International Policy Class of 2024, Stanford Freeman Spogli Institute for International Studies

Gaute Friis, Ford Dorsey Master's in International Policy Class of 2024, Stanford Freeman Spogli Institute for International Studies

Sara Shah, Ford Dorsey Master's in International Policy Class of 2024, Stanford Freeman Spogli Institute for International Studies

Elliot Stewart, Ford Dorsey Master's in International Policy Class of 2024, Stanford Freeman Spogli Institute for International Studies

11:00am – 11:30am Working Lunch

11:30am – 1:00pm Simulation: Phase 2 and Outbrief

In this 3-hour National Security Council simulation, staffers will respond to a crisis situation in the Taiwan Strait involving the potential deployment of AI for national security purposes.

1:00pm – 2:00pm Session 2: The China Challenge

China remains one of the most complex geopolitical challenges for the United States. The Chinese government has made clear its intention to be the leader in AI and other key dual-use technologies to secure an economic, political, and military advantage. Furthermore, the Chinese Communist Party uses AI technology to commit human rights abuses at home and abroad in a fundamentally antidemocratic manner. How can the U.S. maintain human-centered values in its technology and remain a global leader that advances an international order using technology for society's benefit? This session will dive deeply into the nuances of Sino-American relations and how the U.S. can maintain its technological superiority.



Oriana Mastro, Center Fellow, Stanford Freeman Spogli Institute for International Studies
See biography on page 38.



Graham Webster, Editor-in-Chief, DigiChina, Stanford Freeman Spogli Institute for International Studies

Based at Stanford, Graham Webster leads an interorganizational network of specialists to produce analysis and translation on China's digital policy developments. He researches, publishes, and speaks to diverse audiences on the intersection of U.S.-China relations and advanced technology.

From 2012 to 2017, Webster worked for Yale Law School as a senior fellow and lecturer responsible for the Paul Tsai China Center's Track 2 dialogues between the United States and China, co-teaching seminars on contemporary China and Chinese law and policy, leading programming on cyberspace in U.S.-China relations, and writing extensively on the South China Sea and the law of the sea. While with Yale, he was a Yale affiliated fellow with the Yale Information Society Project, a visiting scholar at China Foreign Affairs University, and a Transatlantic Digital Debates fellow with the Global Public Policy Institute and New America.

He was previously an adjunct instructor teaching East Asian politics at New York University, a public policy and communications officer at the EastWest Institute, a Beijing-based journalist writing on technology in China for CNET News and other outlets, and an editor at the Center for American Progress. He has worked as a consultant to Privacy International, the National Bureau of Asian Research, the Clinton Global Initiative, and the Natural Resources Defense Council's China Program.

1:00pm – 2:00pm **Session 2, continued**



Daniel Zhang, Senior Manager for Policy Initiatives, Stanford HAI
See biography on page 24.

2:00pm – 4:00pm **Hotel Break**

4:30pm – 5:30pm **Session 3: The Role of Business: Policy Implications of Industry Leadership in AI**

Silicon Valley, which is home to venture capital, startups, and leading tech firms, is a global center of tech innovation. From the startup lab to the boardrooms of major companies, this session will bring together startup founders and tech executives to map out Silicon Valley's innovation ecosystem, discuss its vibrancy, and critically think about the consequences of AI developments on society. Panelists will offer their perspectives on starting, funding, and running successful companies as well as providing counsel to companies on ensuring ethical business practices.

Speakers:



Chloé Bakalar, Chief Ethicist, Meta

Chloé Bakalar is Chief Ethicist at Meta and Assistant Professor at Temple University. At Meta, she has developed and leads an applied ethics program for AI and genAI company-wide. This work both (1) surfaces and builds understanding about the ethical considerations around Meta's family of AI-powered platforms, products and systems, and also (2) designs and operationalizes tooling to enable ethics-forward product work. Her academic commitments at Temple are in moral / political philosophy and public law (esp. civil rights and civil liberties), and her research focuses on the intersection of information technology, ethics and democratic citizenship. She is currently completing a manuscript, *Small Talk*, which examines neglected concerns for the everyday in philosophy and Anglo-American public law, and introduces a framework for understanding how everyday talk, especially via social media and mediated through AI systems, influences liberal democratic citizenship and outcomes in both positive and negative ways.

Bakalar received her Ph.D. from the University of Pennsylvania and her B.A. from New York University. Before joining Meta and Temple, she was a Senior Research Specialist at Princeton's Center for Information Technology Policy (CITP), and completed the Values and Public Policy Postdoc at Princeton's University Center for Human Values (UCHV) and the Center for the Study of Democratic Politics (CSDP). While at Princeton, she co-founded the Princeton Dialogues on AI and Ethics, an interdisciplinary academic program aimed at empowering AI design and deployment to produce greater positive impacts on people and society while reducing potential risks.

4:30pm – 5:30pm Session 3, continued

Speakers:



Jack Clark, Co-founder, Anthropic; Co-chair of the AI Index Steering Committee, Stanford HAI

Jack Clark is a co-founder of Anthropic, co-chair of the AI Index, an expert member of the Global Partnership on Artificial Intelligence, co-chair of the OECD's working group on AI and Compute, and a nonresident research fellow at the Center for Security and Emerging Technology (CSET). In his spare time, Jack writes *Import AI*, a newsletter about AI and AI policy read by more than 25,000 people around the world. Jack was formerly the policy director of OpenAI, an AI research company.



Chris Manning, Professor of Computer Science and Linguistics, Stanford University; Director, Stanford Artificial Intelligence Laboratory; Faculty Associate Director, Stanford HAI

Chris works on software that can intelligently process, understand, and generate human language material. He is a leader in applying Deep Learning to Natural Language Processing, including exploring Tree Recursive Neural Networks, neural network dependency parsing, the GloVe model of word vectors, neural machine translation, question answering, and deep language understanding. He also focuses on computational linguistic approaches to parsing, natural language inference, and multilingual language processing, including being a principal developer of Stanford Dependencies and Universal Dependencies. Manning is an ACM Fellow, an AAAI Fellow, an ACL Fellow, and a Past President of ACL. He has co-authored leading textbooks on statistical natural language processing and information retrieval. He is the founder of the Stanford NLP group and manages development of the Stanford CoreNLP and Stanza software.

4:30pm – 5:30pm Session 3, continued

Speakers:



Rob Reich, McGregor-Girand Professor of Social Ethics of Science and Technology, Professor, by courtesy, of Education, Stanford University; Faculty Associate Director, Stanford HAI; Senior Fellow, by courtesy, Stanford Freeman Spogli Institute for International Studies

Rob's scholarship in political theory engages with the work of social scientists and engineers. His newest work is on ethics and AI. His most recent books are *System Error: Where Big Tech Went Wrong and How We Can Reboot* (with Mehran Sahami and Jeremy M. Weinstein, HarperCollins, 2021) and *Digital Technology and Democratic Theory* (edited with Lucy Bernholz and Hélène Landemore, University of Chicago Press, 2021). He has also written widely about philanthropy, including *Just Giving: Why Philanthropy Is Failing Democracy and How It Can Do Better* (Princeton University Press, 2018) and *Philanthropy in Democratic Societies: History, Institutions, Values* (edited with Chiara Cordelli and Lucy Bernholz, University of Chicago Press, 2016). His early work is focused on democracy and education, including *Bridging Liberalism and Multiculturalism in American Education* (University of Chicago Press, 2002) and *Education, Justice, and Democracy* (edited with Danielle Allen, University of Chicago Press, 2013). He has written for the *New York Times*, *Washington Post*, *Wired*, *The Guardian*, and the *Stanford Social Innovation Review*.

Rob is the recipient of multiple teaching awards, including the Walter J. Gores award, Stanford's highest honor for teaching. He was a sixth grade teacher at Rusk Elementary School in Houston, Texas, before attending graduate school. He is a board member of the magazine *Boston Review*, of *GivingTuesday*, and at the Spencer Foundation.



Heidi Roizen, Partner, Threshold Ventures; Co-lead of the Threshold Venture Fellows program, Stanford University; Advisory Council Member, Stanford HAI

Heidi Roizen is a venture capitalist, corporate director and former technology CEO/entrepreneur. Today, Heidi is a partner at leading venture firm Threshold Ventures and serves as a board member for private companies Upside Foods and Polarr in the Threshold portfolio. She is currently also an independent corporate director for Invitation Homes (NYSE:INVH) and Planet Labs PBC (NYSE:PL). Heidi is also an Adjunct Lecturer at Stanford University and leads Stanford's Threshold Venture Fellows Program in the Management Science and Engineering department. At Stanford, Heidi also serves on the advisory councils of the Stanford Institute for Human-Centered Artificial Intelligence (HAI) and Stanford Technology Ventures (STVP). She started her career as co-founder of software company T/Maker and served as its CEO for over a dozen years until its acquisition by Deluxe Corporation. After a year as VP of Worldwide Developer Relations at Apple, Heidi then became a venture capitalist in 1999. She has undergraduate and MBA degrees from Stanford and is the proud mother of two kids and two rescue dogs.

5:30pm – 6:30pm Reception

6:30pm – 8:00pm Keynote Dinner: Democracy in the Age of Algorithms: AI's Impact on Governance

The introduction of AI into society has had ripple effects on governments worldwide. Disinformation spreading on digital platforms—further amplified by AI—has had real-world consequences on democracy. Additionally, authoritarian countries are leveraging AI to further surveil and control their populations. The future of democracy hangs in the balance of making sure AI is used to affirm democratic systems and reinforce norms and values for the betterment of humanity. This dinner discussion will unpack the complexities of AI as it intertwines with different governments and considers how to ensure democracy prevails in a digital world.

Speakers:



Larry Diamond (moderator), Mosbacher Senior Fellow in Global Democracy, Stanford Freeman Spogli Institute for International Studies; William L. Clayton Senior Fellow, Hoover Institution
See biography on page 12.



Fei-Fei Li, Sequoia Professor of Computer Science, Stanford University; Denning Co-director, Stanford HAI
See biography on page 14.



Condoleezza Rice, Tad and Dianne Taube Director, Hoover Institution; Denning Professor in Global Business and the Economy, Stanford Graduate School of Business; Advisory Council Member, Stanford HAI
See biography on page 16.

Staffer Biographies



Zachary Atran, Representative Ted Lieu

Zachary Atran serves as a Legislative Assistant to Congressman Ted Lieu. He leads the Congressman's technology policy portfolio, including AI, intellectual property, cybersecurity, and data privacy, and also covers space, transportation, and homeland security. Zachary holds a bachelor's degree in government and politics from the University of Maryland and is getting a master's in policy management from Georgetown University.



Essam Attia, Senator Bernie Sanders

Essam Attia is a Policy Advisor in the office of Senator Bernie Sanders, where he has covered veterans affairs, national security, and science and technology. Currently, he leads the Senator's investigation into Artificial Intelligence (AI), its impact on health, education, and labor equities in the U.S. economy, and the national security implications of AI development and deployment. Essam is a U.S. Army veteran whose military deployments exposed him to the quickly changing landscape of automated technologies and their impact on society. Essam holds a Bachelor of Fine Arts from the School of Visual Arts and a Master's in Security Policy Studies from George Washington University's Elliott School of International Affairs. Previously Essam served as a foreign policy and defense fellow in the U.S. House of Representatives and served on the board of directors of the Veterans Healthcare Policy Institute.



Mindy Barry, House Committee on Education and the Workforce

Mindy Barry began a public service career in the U.S. House of Representatives, where she worked for two Members, for the Science Committee, as Counsel for the Constitution Subcommittee, and as Chief Oversight Counsel for the Judiciary Committee. Mindy was a Guest Lecturer (University of Maryland Graduate School Political Institutions Program and Georgetown University Government Affairs Institute). After moving to Michigan, Mindy clerked at the Supreme Court, practiced law, taught at University of Detroit-Mercy School of Law, and served as President and CEO of Cornerstone Education Group. She was appointed to the U.S. Commission on Civil Rights' Michigan Advisory Committee. Mindy returned to Capitol Hill and is the General Counsel to the House Committee on Education and the Workforce. Mindy received her JD from Georgetown University, where she held two fellowships. She also holds a BA from Colgate University. She is licensed to practice law in Virginia and Michigan.

**John Beezer, Senate Committee on Commerce, Science, and Transportation**

John Beezer is a senior advisor serving on the majority staff of the Consumer Protection subcommittee of the Senate Committee on Commerce, Science, and Transportation. He is focused on privacy, content moderation, and AI/ML. For most of his career, John was a software Product Manager. He's a veteran of multiple tech startups, two of which went on to be listed on the NASDAQ, and an inventor of 26 patents related to mobile devices. In addition to the startups, he's worked for major tech companies including Microsoft, Time-Warner, and Limewire. He first worked with Chair Cantwell at RealNetworks, a Seattle startup that pioneered streaming media, and he served as director of internet communications for Sen. Cantwell's first Senate campaign in 2000. He's advised the Commerce Committee on tech-related matters since 2019.

**Daniel Boatright, House Committee on Science, Space, and Technology**

A native Californian from a town with an extensive aviation history, Danny joined the Marine Corps after high school to work on helicopters. Danny was deployed twice to Iraq, where he met his wife Illie. After Iraq both Danny and Illie earned their bachelor's degrees from California Baptist University in 2008 and were married shortly after. The 2008 recession and Illie encouraged Danny to take a helicopter mechanic government contract position in Afghanistan, where he worked until the end of the contract in 2014.

Danny began working in Congress in 2017 after graduating from CUA law. Danny has previously served as a Law Clerk for Senate Judiciary before taking on a role as Counsel and MLA for Rep. Knight of CA-25. In the 116th Congress, Danny returned to the House, taking a position with Senator Grassley's oversight team, where he worked for Senate Finance and then Senate Judiciary. Just before the birth of his son, Ezra (born 2022), Danny took a Sr. Investigative Counsel role with Senate Commerce. Danny began with House SST in January 2023 and is currently serving as the Staff Director for the Investigations and Oversight Subcommittee.



Kelly Boyer, Senator Maggie Hassan

Kelly Boyer is currently the Deputy Chief of Staff for U.S. Senator Maggie Hassan (D-NH). Prior to joining Senator Hassan's Office, Kelly was the Director of Operations for U.S. Senator Barbara Boxer (D-CA), where she held a number of positions during her 12 years with the Office. Kelly has nearly two decades of experience working with Senators and staff to further progressive agendas and meaningful legislation for the American people. Kelly's deep knowledge of our government and processes has been instrumental in the success of our leaders and their offices in Washington, DC, and in their home states.

Kelly grew up in Minnesota and holds a Bachelor's Degree in Political Science and a Master's Degree in Public Administration from the University of North Dakota. She currently resides in Washington, DC, where she enjoys spending her free time building lasting relationships and opportunities with the Korean-American community and volunteering for various nonprofits and dog rescues across the city.



Anudeep "Deep" Buddharaju, House Committee on Energy and Commerce

Deep grew up in Illinois and graduated from Loyola Chicago and Notre Dame Law School. He has worked on congressional oversight and investigations with three House committees—Oversight, Judiciary, and now Energy and Commerce. He previously clerked at the U.S. Court of Federal Claims under the Honorable Zachary Somers. He enjoys hiking with his dog and traveling.



Heather Campbell, Representative Kay Granger

Heather is Deputy Chief of Staff for Rep. Kay Granger (R-TX), Chairwoman of the House Appropriations Committee, with a focus on defense and foreign affairs issues. Heather has been working for Chairwoman Granger for four years. Heather previously worked as a Legislative Aide for Senator Orrin Hatch (R-UT), Former Chairman of the Senate Finance and Senate Judiciary Committee for four years working on education issues. Heather is a graduate of Brigham Young University, where she majored in Political Science with a minor in Business Management. She is originally from Houston, Texas.

**Ryan Carroll, Senator Ron Wyden**

Ryan Carroll serves as Senior Counsel to Senator Ron Wyden. Prior to joining Senator Wyden's office, he was a Senior Policy Advisor at the National Telecommunications and Information Administration. He has also worked at Wilkinson Barker Knauer, LLP and the U.S. Department of Homeland Security. Ryan is a graduate of the Columbus School of Law and American University.

**Dwayne Clark, House Committee on Foreign Affairs**

Dwayne Clark is a Professional Staff Member for the U.S. House Committee on Foreign Affairs (HFAC), Majority. His portfolio consists of export controls, appropriations, trade, CFIUS, and counter-China policy. Prior to HFAC, Dwayne served in various capacities, including a role as the National Security Advisor for Congressman Robert Aderholt (AL-04), the Military Legislative Assistant for Congressman Anthony Gonzalez (OH-16), and as staff on the U.S. House Committee on Financial Services. He holds a Certification in Strategy and Policy Development from the U.S. Army War College and is a graduate of Embry-Riddle Aeronautical University, with a Bachelor of Science in Global Conflict Studies and dual minors in Homeland Security and Psychology.

**Jonathan Foltz, Senator Rick Scott**

Jon Foltz is Senator Rick Scott's (R-FL) Legislative Director. Previously he served as a Senior Legislative Advisor at the U.S. Department of Homeland Security, as the Legislative Director for Sen. Luther Strange (R-AL), and as Deputy Legislative Director and Counsel for Sen. Dan Coats (R-IN). He graduated from Purdue University and from the Indiana University Robert H. McKinney School of Law.

**Ian Gray, Senator Cory Booker**

Ian serves as Policy Advisor to Senator Cory Booker (D-NJ), and manages the Senator's technology policy portfolio. He previously served as Legislative Director to Congressman Tom Malinowski (D-NJ) and as Policy Advisor to the Director of the White House Domestic Policy Council during the Obama Administration. Ian received a BA from George Washington University and an MA from Johns Hopkins University.



Melodie Ha, House Select Committee on Strategic Competition Between the U.S. and the CCP

Melodie Ha is a Professional Staff Member with the House Select Committee on Strategic Competition Between the U.S. and the CCP, where she focuses on defense and critical and emerging technologies. Prior to this, she was a senior analyst for the Defense Innovation Board at the U.S. Department of Defense. Ms. Ha has also worked for Guidehouse's National Security and Defense Sector and the Center for the Study of Chinese Military Affairs at National Defense University. Her research interests include the Chinese military, U.S. defense policy, and U.S.-China relations.

Ms. Ha received an MA in Security Studies from Georgetown University's School of Foreign Service, and a BA in Political Science and Chinese Language from Wellesley College. She served as a David L. Boren Fellow to Beijing, China, in 2017.



Landon Heid, House Select Committee on Strategic Competition Between the U.S. and the CCP

Landon Heid is a Professional Staff Member on the Select Committee on Strategic Competition with the CCP covering the U.S.-PRC technology competition. Before joining the Committee, Landon spent five years as a Foreign Service Officer at the Department of State, with tours at Embassy Beijing and the Office of China Coordination. Landon is a native of Missouri and has a BA from the University of Missouri and an MA from George Washington University.



Catherine Johnson, House Committee on Science, Space, and Technology

Catherine (Cate) Johnson is the Research and Technology Subcommittee Staff Director, working for Chairman Frank Lucas (R-OK) on the House Science, Space, and Technology Committee. She joined the Committee in December 2017 as a Professional Staff Member and leads the legislative jurisdiction and general oversight for the Research and Technology Subcommittee, which includes the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), the Office of Science and Technology Policy (OSTP), and the science, technology, engineering, and mathematics (STEM) education programs at federal science agencies. Prior to joining the Committee, Cate spent three years as the Assistant Director of Federal Relations for the University of Wisconsin–Madison and, prior to that, over five years in the office of Congressman Thomas E. Petri (R-WI). She earned a BA degree in history and political science from the University of Wisconsin–Madison.

**Esther Kahng, House Financial Services Committee**

Esther Kahng currently serves as the Chief Counsel for the House Financial Services Committee. In this capacity, she serves as a top advisor to Ranking Member Maxine Waters on all matters under the Committee's jurisdiction, and leads the development and implementation of legislative operations and strategy. Esther's legislative work over the past 10 years with the Committee has led to several bills and amendments passing into law. A native of Los Angeles, California, Esther received her bachelor's degree in political science from the University of California, San Diego, and her law degree from Georgetown University. She is currently a member of the DC Bar Association.

**Megan Kanne, Representative Jan Schakowsky**

Megan Kanne serves as Technology and Transportation Policy Advisory for U.S. Representative Jan Schakowsky. She supports the Congresswoman's work as Ranking Member of the Innovation, Data, and Commerce Subcommittee of the House Energy and Commerce Committee, with jurisdiction over much of the technology industry. In that capacity, she has worked on a range of issues, including comprehensive federal data privacy legislation, protecting consumers online, autonomous vehicles, and whistleblower protections. She is deeply interested in the privacy, ethical, and societal impacts of technology. Previously, Megan was a software engineer at Twitter, where she designed, built, and maintained computer systems that serve millions of people and billions of transactions.

**Lauren Lombardo, House Committee on Oversight and Accountability**

Lauren Lombardo serves as Senior Policy Analyst for the House Committee on Oversight and Accountability covering technology and procurement policy and supporting the Subcommittee on Cybersecurity, Information Technology, and Government Innovation. Prior to working for the committee, she served as a Legislative Assistant to Senator Ben Sasse covering technology, higher education, and economic issues. Lauren started her career as a data scientist and holds an undergraduate degree from California State University, Sacramento, and a Master in Public Policy from the Harvard Kennedy School.



Randal Meyer, Representative Nancy Mace

Randal John Meyer is the Legislative Director and Chief Counsel for Representative Nancy Mace (R-SC-01). He previously served as Executive Director of the Global Alliance for Cannabis Commerce and co-founded the Cannabis Freedom Alliance. Mr. Meyer is widely recognized as an expert in constitutional law and as one of the foremost legal and government affairs experts in cannabis, honored by the *National Law Journal* as a 2022 Cannabis Law Trailblazer and *Business Insider* as a 2021 Top Cannabis Lobbyist. Mr. Meyer served as legislative counsel to a U.S. Senator and a legal associate in the Cato Institute's Center for Constitutional Studies before entering private practice as an appellate litigator and a lobbyist in international law firms. His work has been published widely in such outlets as *The Wall Street Journal*, *Chicago Tribune*, *San Francisco Chronicle*, *National Law Journal*, *National Review Online*, *New York Post*, and *Newsweek*, and has been featured in publications such as the *Washington Post*.



Julia Pan, Senate Committee on Commerce, Science, and Transportation

Julia Pan is majority staff for the Senate Committee on Commerce, Science, and Transportation, Space and Science Subcommittee, covering emerging technology issues such as artificial intelligence and quantum information science and technology policy. Previously, she supported venture-backed startups in hardware, AI, and cyber navigating the federal acquisitions and procurement process at the startup accelerator Dcode. Julia has also worked at the Beeck Center for Social Impact and Innovation, researched AI Ethics and Governance at the Berkman Klein Center for Internet and Society, and was a consumer protection paralegal at the Federal Trade Commission. Julia received her BA in Cognitive Science and a certificate in Innovation and Technology Policy from the University of Pennsylvania.



Mehgan Perez-Acosta, Representative Byron Donalds

Mehgan Perez-Acosta serves as Chief of Staff to Congressman Byron Donalds of Florida. Prior to her current position, she has served over a decade in various roles to a number of congressional members and districts. Before joining Capitol Hill, she held roles in campaigns at the local, state, and national levels, with the National Republican Congressional Committee, and served in the law enforcement community. She is a graduate of the University of Louisiana at Monroe.

**Agbeko Petty, House Judiciary Committee**

Agbeko Petty serves as Counsel for the House Judiciary Committee, where she advises Democratic Congressmembers on constitutional, civil rights, and civil liberties issues. Before joining the Committee, she was a litigator at Paul, Weiss, Rifkind, Wharton & Garrison LLP. Here, she represented Fortune 500 companies in a wide range of complex civil and commercial litigation matters as well as high-stakes government investigations and regulatory enforcement cases. While at Paul, Weiss, Agbeko actively engaged in pro bono work, including assisting Former Secretary of Homeland Security Jeh Johnson in his work as Special Advisor on Equal Justice in the New York State Courts. Agbeko clerked for the Honorable Petrese B. Tucker of the United States District Court for the Eastern District of Pennsylvania and served as a Law Fellow at the NAACP Legal Defense and Educational Fund, Inc. She holds a BA from the University of Washington and a JD from Cornell.

**Mayra Salinas, Senator Mark Kelly**

Mayra Salinas serves as General Counsel to Senator Mark Kelly and serves as his policy lead on artificial intelligence. She is responsible for the Senator's work on homeland security, immigration, judiciary, elections/voting rights, and economic policy. Mayra also oversees the Senator's work as a member of the Joint Economic Committee.

**Alyson Sincavage, Senator Alex Padilla**

Alyson Sincavage is the Chief Counsel and Subcommittee Staff Director for Senator Alex Padilla. She leads a team of counsels, detailees, law clerks, and legislative correspondents for the Senator, as well as his Judiciary Subcommittee on Immigration, Citizenship, and Border Safety. Prior to working for Senator Padilla, Alyson served as the General Counsel and Senior Policy Director for Senator Tom Udall from 2018–2020 and Senator Tim Kaine from 2020–2021. Alyson spearheaded legislative policy work at the American Immigration Lawyers Association for several years prior to working on Capitol Hill. And before working on policy, Alyson started her legal career as an Assistant Public Defender for the State of Maryland, where she represented indigent clients for over three years.



Teddy Tanzer, House Committee on Energy and Commerce

Teddy Tanzer is a Senior Counsel to Chair Cathy McMorris Rodgers, on the Innovation, Data, and Commerce Subcommittee of the Energy and Commerce Committee. In that role, he is responsible for policy related to emerging technology, data privacy, sports, auto and consumer product safety, and oversight of the FTC, CPSC, DOC, and NHTSA. Teddy has previously served as a Counsel to Commissioner Peter A. Feldman at the U.S. Consumer Product Safety Commission, as a Law Clerk on the U.S. Senate Committee on Commerce, Science, and Transportation, and as a Legal Fellow to U.S. Senator John R. Thune. Teddy received a BA from Hobart College, and a JD from Seton Hall University School of Law, and is licensed to practice law in New York and Washington, DC.



Emily Trapani, House Appropriations Committee

Emily Trapani is the Professional Staff Member for the House Appropriations Committee Majority Staff in charge of the Cybersecurity and Infrastructure Security Agency account. She previously worked in-house for a digital infrastructure company, government affairs firm, public opinion polling firm, and spent four years with the House Committee on Homeland Security as both Professional Staff Member and Subcommittee Director. She has an extensive background in the intersection of tech policy and national security. Emily received an MBA from the Carlson School of Management (University of Minnesota) and a BA in Political Science and English from the University of Rochester. She was born and raised in Syracuse, New York, and has been living in Washington, DC, since 2014.



Clint Trocchio, Senate Committee on Appropriations

Clint Trocchio is the Chief Clerk and Head of Analytics and Policy Innovation for the Senate's Committee on Appropriations. He leads the digital approach that has transformed how the Committee creates appropriations law and, most recently, how it has modernized and made congressionally directed spending more transparent. His team develops the information systems and strategies that empower the Chair to exercise the Committee's "power of the purse." Clint is a former Budget Analyst and retired Coast Guard Aviator from Ohio.

**Joe Zanoni, Representative Zoe Lofgren**

Joe Zanoni serves as Legislative Counsel for Congresswoman Zoe Lofgren, focusing on technology policy, including artificial intelligence. Within Congresswoman Lofgren's Judiciary Committee portfolio, Joe is responsible for AI policy, privacy issues, intellectual property, and antitrust law. In addition, he oversees matters related to financial services, banking, and commerce. Joe earned a Juris Doctor from the University of Georgia and a Bachelor of Arts from the University of Arizona.

Special thank you for the Stanford HAI staff who contributed to the boot camp:



Jeanina Casusi, Email and Social Marketing Manager

Jeanina Casusi is the social media and email marketing manager at Stanford HAI. Her role involves elevating the institute's social media presence and developing campaigns to grow its key audiences across all channels. Prior to joining the institute, she has worked with local and global nonprofits in the U.S. and the Philippines in various capacities involving digital media, marketing, news writing, graphic design, and events. She majored in journalism and graduated with a Bachelor of Science degree in Development Communication at the University of the Philippines Los Banos. In her spare time, she volunteers as a photographer and a graphic designer for *Mahalaya*, an SF-based community newspaper, which centers the experiences and narratives of Filipinos in and beyond the Bay Area.



Joi Gemigniani, Policy and Society Program Coordinator

Joi is a globally minded professional with an eclectic background, including several years as an outstanding executive assistant to C-Suite and senior leaders, as well as a speaker and event manager. She recently joined Stanford HAI serving as the Policy and Society Program Coordinator. She collaborates across departments and all levels of leadership with an ability to manage multiple and shifting priorities as well as exercising discretion at all times. She has a proven track record in building, implementing, and managing speaker and client relationships. Joi uses a consultative approach to work and is passionate about bringing value to everyone's experience.

Joi holds a Bachelor of Science degree in Business Management from Notre Dame de Namur University and an Advanced Paralegal Certificate from Edmonds College.

In her spare time, Joi spends time with family, reading, and traveling.

**Joe Hinman, Web Designer**

Joe Hinman is a Web Designer at the Stanford HAI, where he is a graphic designer and manages the HAI website. Before coming to HAI, he was a Web Specialist at Stanford's Financial Management Services and coordinated their web design needs. When not brainstorming ways to visualize AI, he loves long distance running in San Francisco and surfing at Ocean Beach.

**Carolyn Lehman, Director of Communications and Media**

Carolyn is the director of communications at the Stanford Institute for Human-Centered AI. With more than 15 years of experience in communications, brand marketing, and issues management across Fortune 50, startup, and foundation brands, Carolyn provides strategic communications counsel on complex and sensitive issues regarding internal and external communications, developing executive communications, and managing organizational change. Before Stanford, Carolyn worked as the vice president of communications and marketing at the Linux Foundation. Carolyn holds an MPP from the Harvard Kennedy School and a BS in marketing and communications from Boston University.

**Shana Lynch, Head of Content**

Shana Lynch is Head of Content at the Stanford Institute for Human-Centered Artificial Intelligence (HAI), where she oversees the HAI blog that features new research and faculty thought leadership. Before coming to HAI, she was a senior editor at Stanford Graduate School of Business and managing editor at the *Silicon Valley Business Journal*. When not pondering AI's existential risk to humanity, she is a volunteer creative writing tutor and frequent tourist, and will indeed stop to pat every dog.



Vanessa Parli, Director of Research

Vanessa leads the HAI grant programs, research convenings, student groups and “state of AI” reports such as the AI 100 and the AI Index, where she is a member of the Steering Committee. Her team also analyzes the effectiveness of these programs to continuously improve HAI’s ability to foster interdisciplinary research collaborations internal and external to Stanford. Prior to Stanford, Vanessa worked in management consulting, where she utilized statistics, machine learning, and other data science methodologies to advise government agencies, large biotech companies, and nonprofit organizations. Vanessa holds an MS in Engineering Management and Computational Mathematics from Johns Hopkins University and a BA in Industrial Engineering from Arizona State University.



Kaci Danae Peel, Events Planner

Kaci Peel has been the Events Planner at the Stanford HAI since 2021. She has been the owner of Kaci Danae Events, a company offering day-of wedding coordination, since 2020. Prior to her time at Stanford, she planned and coordinated hundreds of events in the hospitality industry after receiving her BA in Hospitality Business Management from Washington State University.



Sara Shah, Congressional Boot Camp Lead

Sara focuses on trust and safety issues and online harm at Stanford through work with the Stanford Internet Observatory and Stanford HAI. She most recently served in the Biden-Harris administration as Special Assistant to the U.S. Secretary of Homeland Security. At DHS, Sara played a central role in the Department’s efforts to support the U.S. withdrawal from Afghanistan and prepare the nation’s cyberdefenses in the wake of the Russian invasion of Ukraine. Her portfolio included national security, cybersecurity, foreign policy, privacy, civil rights and civil liberties, influence operations, child sexual exploitation and abuse, and international migration.

Prior to her time in the Biden-Harris administration, Sara worked for several years at the Council on Foreign Relations and Albright Stonebridge Group. She coordinated and co-drafted the Think Tank Diversity Action Statement in 2020, signed by over 400 policy professionals. Sara holds a BA in international studies from Johns Hopkins University. Her senior thesis exposed cleavages within ISIS’ female recruitment strategies on social media.

**Russell Wald, Managing Director for Policy and Society**

Russell leads the policy and society initiative at HAI, and advances the organization's engagement with civil society and governments worldwide. As a part of HAI's executive management team, Wald sets the strategic vision for policy and societal research, education, and outreach at HAI. He is also a member of the AI Index Steering Committee. Wald has held various policy program and government relations positions at Stanford University for nearly a decade. He is the co-author of various publications on AI, including *Building a National AI Research Resource* (2021) and *Enhancing International Cooperation in AI Research: The Case for a Multilateral AI Research Institute* (2022). Wald is a graduate of UCLA.

**Madeline Wright, Communications and Events Coordinator**

Madeline Wright is the Communications and Events Coordinator at Stanford HAI, where she assists with event planning, website updates, gathering key engagement metrics, and newsletters. She holds an MS in Marketing from Santa Clara University and a BA in Economics and Communication Studies from Gonzaga University.

**Daniel Zhang, Senior Manager for Policy Initiatives**

Daniel leads HAI's policy research, outreach, and education initiatives. With the goal of developing evidence-based AI policy recommendations, his research interests lie at the intersection of technology policy, governance, and societal impact, including translational and original research on AI regulation and standards, the geopolitical implication of emerging technology, and the governance of large-scale ML models. Daniel is also a member of the High-Level Expert Group on AI Ethics at UNESCO, advising the agency on the implementation of its Recommendation on the Ethics of AI. Previously, he was the manager of the AI Index, where he lead-authored the 2021 and 2022 annual reports that measure and evaluate the rapid rate of AI advancement.

