

Employee Post-Travel Disclosure of Travel Expenses

Post-Travel Filing Instructions: Complete this form within **30 days** of returning from travel. Submit all forms to the **Office of Public Records in 232 Hart Building**.

Date/Time Stamp:
RECEIVED
SECRETARY OF THE SENATE
PUBLIC RECORDS
2023 MAY 12 PM 4:42

In compliance with Rule 35.2(a) and (c), I make the following disclosures with respect to travel expenses that have been or will be reimbursed/paid for me. I also certify that I have attached:

- ☒ The original *Employee Pre-Travel Authorization* (Form RE-1), AND
☒ A copy of the *Private Sponsor Travel Certification Form* with all attachments (itinerary, invitee list, etc.)

Private Sponsor(s) (list all): Stanford Institute for Human-Centered Artificial Intelligence

Travel date(s): August 8-11, 2022

Name of accompanying family member (if any): N/A

Relationship to Traveler: ☐ Spouse ☐ Child

IF THE COST OF LODGING **DID NOT INCREASE** DUE TO THE ACCOMPANYING SPOUSE OR DEPENDENT CHILD, ONLY INCLUDE LODGING COSTS IN EMPLOYEE EXPENSES. (Attach additional pages if necessary.)

Expenses for Employee:

	Transportation Expenses	Lodging Expenses	Meal Expenses	Other Expenses (Amount & Description)
☐ Good Faith Estimate	\$1157.95 (round trip, economy class airfare)	\$245 per night \$735 total	\$65 per day \$195 total	
☒ Actual Amount	\$115 (ground transportation)			

Expenses for Accompanying Spouse or Dependent Child (if applicable):

	Transportation Expenses	Lodging Expenses	Meal Expenses	Other Expenses (Amount & Description)
☐ Good Faith Estimate				
☐ Actual Amount				

Provide a description of all meetings and events attended. *See Senate Rule 35.2(c)(6)*. (Attach additional pages if necessary.): See attached itinerary

4/3/23
(Date)

Oliver Riquelme
(Printed name of traveler)

Oliver Riquelme
(Signature of traveler)

TO BE COMPLETED BY SUPERVISING MEMBER/OFFICER:

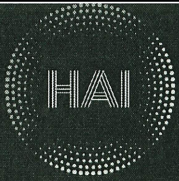
I have made a determination that the expenses set out above in connections with travel described in the *Employee Pre-Travel Authorization* form, are necessary transportation, lodging, and related expenses as defined in Rule 35.

04/03/23
(Date)

[Signature]
(Signature of Supervising Senator/Officer)

List of Attendees:

1. Oliver Riquelme Beaufort
2. Ann Kowalewski
3. Mana Azarmi
4. Amar Pandya
5. Jacob Parker
6. Rashan Colbert
7. Matthew Hamilton



Congressional Boot Camp on Artificial Intelligence
AUGUST 8-11, 2022



SYLLABUS

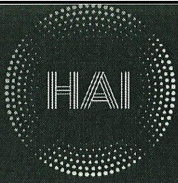
COURSE DESCRIPTION:

Emerging digital technologies—in particular artificial intelligence (AI)—are among the most consequential forces of the 21st century. They are transforming economies, challenging legal and political norms, and reconfiguring society. Governments attempting to navigate this era must adapt regulatory regimes, social safety nets, fiscal policies, taxation, and foreign affairs as digital technologies continue to reshape labor markets, business, the distribution of economic rewards, and the global balance of power.

Congressional staff play a key role in shaping and developing policy on critical technology areas such as AI, yet rapid advancements in AI make it challenging for many to keep up with the quickly evolving field. The Stanford Institute for Human-Centered AI (HAI) designed this boot camp specifically for congressional staff to explore the latest in AI developments, equipping participants with the comprehensive knowledge needed to think critically about regulating and governing this emerging technology.

AI is not solely a technical matter, though it is easy for policy analysts and others to get lost in the technical details. Understanding the impact of AI on society is a multifaceted enterprise that requires expertise from computer science, economics, law, medicine, political science, psychology, and a host of other disciplines. To that end, the boot camp draws upon the knowledge of multidisciplinary AI experts in academia, as well as leaders from civil society and industry.

This bicameral, bipartisan boot camp consists of many sessions that seek to unpack what AI means for international security, the future of work, healthcare, and more—and it also includes a field trip to the Stanford Virtual Human Interaction Lab for a hands-on experience. We hope all participants will leave the boot camp with the conceptual framework needed to address the emerging technology landscape today and better anticipate the challenges of tomorrow.



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



DAY 1: MONDAY, AUGUST 8, 2022

9:31am **Flight Arrives at SFO airport**

9:31am — 11:15am **Travel to hotel and campus**

11:15am — 11:30am **WELCOME SESSION AND LUNCH**

Speakers:

John Robichaux, Director of Education, Stanford HAI

Russell Wald, Director of Policy, Stanford HAI

Stanford HAI staff will welcome congressional staffers to campus and provide an overview of why the boot camp was created and what Stanford HAI hopes for participants to gain.

11:30am — 12:30pm **SESSION 1: MAPPING THE AI LANDSCAPE**

Speaker:

Peter Norvig, Distinguished Education Fellow, Stanford HAI; Director of Research, Google

Session Description:

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.

Learning Objectives:

Build a foundational understanding of AI and its stages of development; recognize that AI is not simply coding and computer science but requires interdisciplinary analysis.

12:30pm — 1:30pm **SESSION 2: MITIGATING RISK: IMPLEMENTING SAFE AND ROBUST AI**

Speakers:

Anthony Corso, Executive Director, Stanford Center for AI Safety; Aeronautics and

Aeronautics Postdoctoral Researcher, Stanford University

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

Session Description:

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.

Learning Objectives:

What makes an AI system robust, and in turn, what makes an AI system brittle; why it is challenging for developers to mitigate or eliminate all safety risks in an AI system; best approaches to deploying AI and ensuring safe outcomes.



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



1:30pm – 1:45pm

Break

1:45pm — 2:45pm

SESSION 3: THE FUEL OF AI: DATA (AND ITS PERILS)

Speakers:

Jennifer King, Privacy and Data Policy Fellow, Stanford HAI

Terah Lyons, (moderator), Executive In Residence, Zetta Venture Partners;

Member of the HAI Index Steering Committee and Affiliated Fellow, Stanford HAI

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

Session Description:

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 non-obvious 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.

Learning Objectives:

Understand the recent data boom and how it has contributed to AI advancements; obstacles of collecting and cleaning data; different ways in which data can be biased; how policies around data and privacy can have ripple effects in the data economy.

2:45pm – 3:30pm

SESSION 4: AI, AUTOMATION, AND THE FUTURE OF WORK

Speaker:

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

Session Description:

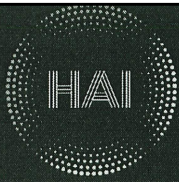
AI and automation will have a rippling effect on today's workforce and the future of work. Mainstream narratives forecast AI will displace workers and funnel profits up to a select few. Alternatively, AI has the potential to augment and supercharge labor, ensuring the benefits of AI are spread and enjoyed 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.

Learning Objectives:

How AI and automation are expected to shift the current state of the workforce; ways to ensure the benefits and wealth of AI in the economy are enjoyed by most and not merely a few.

3:30pm – 3:45pm

Break/Walk to Gates



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



3:45pm – 4:45pm

SESSION 5: UNDERSTANDING THE BASICS OF FOUNDATION MODELS

Speakers:

Rishi Bommasani, Computer Science Ph.D. Candidate, Stanford University

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

Session Description:

Recently, a new successful paradigm for building AI systems has emerged: train one model on a significant 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.

Learning Objectives:

What differentiates foundation models from regular AI models; the exciting potential and concerning societal consequences of foundation models; speculating the future of foundation model research.

4:45pm – 5:30pm

KEYNOTE FIRESIDE CHAT

CUTTING EDGE: AI DEVELOPMENTS THAT ARE STEERING THE FUTURE

Speakers:

Fei-Fei Li, Sequoia Professor of Computer Science, Stanford University; Denning Co-Director, Stanford HAI

James Manyika, Vice Chair, National Artificial Intelligence Advisory Committee; Advisory Council Member and Distinguished Fellow, Stanford HAI; Senior Vice President of Technology and Society, Google

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.

Learning Objectives:

Delve into recent significant AI advancements; explore different ways AI can be leveraged to benefit society; speculate on new AI technologies on the horizon.

5:30pm – 7:00pm

Dinner



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



DAY 2: TUESDAY, AUGUST 9, 2022

8:30am – 9:00am

Breakfast/Debrief

Speakers:

John Robichaux, Director of Education, Stanford HAI

Russell Wald, Director of Policy, Stanford HAI

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.

9:00am – 10:00am

SESSION 1: HOW AI WILL SHAPE THE FUTURE OF INTERNATIONAL SECURITY AND U.S. INTELLIGENCE

Speakers:

Brad Boyd (moderator), Visiting Fellow, Hoover Institution

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

Amy Zegart, Senior Fellow, Stanford Freeman Spogli Institute for International Studies; Morris Arnold and Nona Jean Cox Senior Fellow, Hoover Institution; Chair, Steering Committee on International Security, Stanford HAI

Session Description:

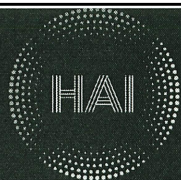
Spying has never been more ubiquitous—or less understood. This crisis in intelligence education is fueling conspiracy theories and hurting intelligence policy. At the same time, AI is introducing new opportunities to strengthen U.S. intelligence capabilities, but only if decision makers understand how the U.S. intelligence community and AI technologies actually work. This session will separate fact from fiction as panelists discuss the past, present, and future of American espionage and how AI is creating an adapt-or-fail moment for U.S. intelligence agencies.

Learning Objectives:

History and present of U.S. intelligence; implications of AI on intelligence and international security

10:00am – 10:15am

Break



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



10:15am – 11:15am

SESSION 2: DIGITAL DUPES: HOW AI IS DISTORTING TRUTH THROUGH DISINFORMATION AND DEEPPFAKES

Speakers:

Andrew Grotto, Director, Program on Geopolitics, Technology, and Governance, Stanford Cyber Policy Center; William J. Perry International Security Fellow, Stanford Center for International Security and Cooperation; Visiting Fellow, Hoover Institution

Riana Pfefferkorn, Research Scholar, Stanford Internet Observatory, Stanford Cyber Policy Center

Session Description:

The rapid spread of disinformation has challenged societies and deepened mistrust, threatening to erode democratic values. Furthermore, synthetic media from the advent of generative adversarial networks (GANS) 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 ecosystem and how policy can help protect people from fake content.

Learning Objectives:

How AI can be used to deceive people; impact of deception or the spread of disinformation; policy opportunities and challenges to address fake content.

11:15am – 12:15pm

SESSION 3: THE CHINA CHALLENGE: DEVELOPING HUMAN-CENTERED AI WITH AN AUTHORITARIAN COMPETITOR

Speakers:

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

Graham Webster, Research Scholar and Editor-in-Chief, DigiChina, Stanford Cyber Policy Center

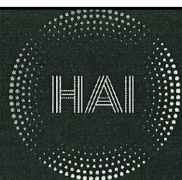
Daniel Zhang (moderator), Policy Research Manager, Stanford HAI

Session Description:

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 anti-democratic 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.

Learning Objectives:

Brief history of U.S.-China relations; differing innovation ecosystems in each country; China's intention and strategy for becoming a global leader in AI and how the U.S. compares.



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



12:15pm – 1:00pm **Lunch**

1:00pm – 2:00pm

SESSION 4: THE POSSIBILITIES AND PITFALLS OF AI AND CLIMATE SUSTAINABILITY

Speakers:

Rayne Sullivan, Graduate Fellow, Stanford HAI

Marshall Burke, Associate Professor of Earth System Science, Stanford University; Deputy Director, Stanford Center on Food Security and the Environment; Senior Fellow, Stanford Freeman Spogli Institute for International Studies

Session Description:

The risks and threats stemming from global climate change are becoming a paramount 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.

Learning Objectives:

How AI can help address climate challenges; the carbon footprint of large-scale models.

2:00pm – 4:00pm

Hotel Break

4:00pm – 5:00pm

SESSION 5: FROM STARTUPS TO GIANTS: INDUSTRY PERSPECTIVES ON INNOVATION

Speakers:

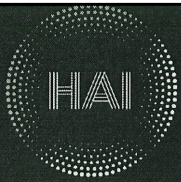
Jack Clark, Co-Founder, Anthropic; Co-Chair of the AI Index Steering Committee, Stanford HAI

Vilas Dhar (moderator), President and Trustee, Patrick J. McGovern Foundation; Advisory Council Member, Stanford HAI

Rachel Gillum, Vice President, Ethical and Humane Use of Technology, Salesforce; Affiliate, Stanford Immigration Policy Lab

John Hennessy, President Emeritus, Stanford University; Chairman of the Board, Alphabet Inc.; Advisory Council Member, Stanford HAI

Susan Liautaud, Founding and Managing Director, Susan Liautaud & Associates Limited; Advisory Council Member, Stanford HAI



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022

**Session Description:**

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.

Learning Objectives:

Understand the Silicon Valley innovation ecosystem; unique challenges and opportunities startups and large firms face; industry perspective of how policy impacts their ability to grow their firms.

5:00pm – 6:00pm

Reception

6:00pm – 7:30pm

KEYNOTE DINNER: DEMOCRACY IN A WORLD OF AI-FUELED DISINFORMATION AND DIGITAL AUTHORITARIANISM

Speakers:

Daniel Ho (moderator), 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; Member, National Artificial Intelligence Advisory Committee

Francis Fukuyama, Olivier Nomellini Senior Fellow, Stanford Freeman Spogli Institute for International Studies; Director, Susan Ford Dorsey Master's in International Policy, Stanford University; Faculty Affiliate, Stanford HAI

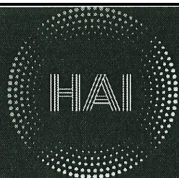
Condoleezza Rice, Tad and Dianne Taube Director, Hoover Institution; Denning Professor in Global Business and the Economy, Stanford Graduate School of Business; Advisory Council Member, Stanford HAI

Session Description:

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.

Learning Objectives:

How AI can strengthen or undermine democracy; varying consequences of AI as it integrates into different government systems.



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



DAY 3: WEDNESDAY, AUGUST 10, 2022

8:30am – 9:00am

Breakfast

Speakers:

John Robichaux, Director of Education, Stanford HAI

Russell Wald, Director of Policy, Stanford HAI

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.

9:00am – 10:00am

**SESSION 1: REVOLUTIONIZING THE CLASSROOM:
HOW AI IS ADVANCING EDUCATION**

Speakers:

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

John Robichaux (moderator), Director of Education, Stanford HAI

Daniel Schwartz, James Quillen Dean and Nomellini & Olivier Professor of Educational Technology, Stanford University; Faculty Affiliate, Stanford HAI

Session Description:

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 students and teachers.

Learning Objectives:

AI's potential to improve education; possible risks of introducing AI in education, especially with regard to children.



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



10:00am – 11:00am

SESSION 2: THE NEW CREATIVE INDUSTRY: HOW AI IS RESHAPING ARTS AND CULTURE

Speakers:

Michele Elam, William Robertson Coe Professor of Humanities, Stanford University;
Faculty Associate Director, Stanford HAI

Kamal Sinclair, Senior Director of Digital Innovation, The Music Center

Session Description:

Artistic and cultural expression is one of the hallmarks of advanced societies. Today we understand the intersection of arts and culture with wellness, innovation, creativity, diversity, and health. AI is expanding artistic and cultural expression, opening up new possibilities for our state, local, and federal arts and culture programs. This session will explore why and how AI needs to be more integrated with the humanities and arts in order to contribute to human flourishing, especially when it comes to social justice.

Learning Objectives:

How is AI reshaping arts and culture; new opportunities for federal arts and culture programs

11:00am – 11:15am

Break

11:15am – 12:15pm

SESSION 3: TRANSFORMING HEALTHCARE THROUGH INNOVATION

Speakers:

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

Matthew Lungren, Chief Medical Information Officer, Nuance Communications, a Microsoft Company; Associate Clinical Professor, University of California San Francisco; Associate Fellow, Stanford Center for Artificial Intelligence in Medicine & Imaging

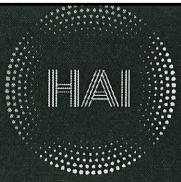
Sherri Rose (moderator), Associate Professor of Health Policy, Stanford University;
Co-Director, Stanford Health Policy Data Science Lab; Faculty Affiliate, Stanford HAI

Session Description:

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.

Learning Objectives:

Recent medical AI advancements; future opportunities for AI in healthcare; risks and consequences of using AI in healthcare.



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



12:15pm – 1:30pm

SESSION 4 (LUNCH): MODERNIZING A MAMMOTH: USE-CASES OF PUBLIC SECTOR AI

Speaker:

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

Session Description:

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.

Learning Objectives:

Challenges of AI integration in government; different types of AI use-cases for government; various factors needed to ensure AI integration is successful.

1:30pm – 1:45pm

Break

1:45pm – 2:45pm

CLOSING KEYNOTE SESSION 5: THE NEUROSCIENCE OF ADDICTION AND IMPLICATIONS FOR A DIGITAL WORLD

Speakers:

Jennifer King, Privacy and Data Policy Fellow, Stanford HAI

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

Session Description:

This is a time of unprecedented access to high-reward, high-dopamine stimuli: drugs, food, news, gambling, shopping, gaming, texting, Facebooking, Instagramming, YouTubeing, tweeting . . . The increased numbers, variety, and potency are staggering. 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 compulsive overconsumption of everything from food, to sex, to video games.

Learning Objectives:

Describe the neuroscience of pleasure and pain and what happens in the brain as we become addicted; explain homeostasis and how repeated exposure to drugs of all kinds tilts the hedonic set-point to the side of pain; identify *dopamine fasting* as a practical, feasible, and effective way to reset reward pathways; review the science of hormesis: How intentionally engaging in pain/discomfort can improve mood and well-being



Congressional Boot Camp on Artificial Intelligence

AUGUST 8-11, 2022



2:45pm – 4:15pm

SESSION 6: TRIP TO THE STANFORD VIRTUAL HUMAN INTERACTION LAB

Speaker:

Jeremy Bailenson, Founding Director, Stanford Virtual Human Interaction Lab; Thomas More Storke Professor of Communication, Stanford University

Session Description:

Staffers will take a trip to Stanford's Virtual Human Interaction Lab (VHIL) to get hands-on experience in virtual and augmented reality technology (VR/AR). This session will dive into how VR/AR will transform society, how to create VR/AR that will enhance and not detract from reality, and the psychological processes that people undergo while using VR/AR.

Learning Objectives:

The difference between AR and VR; various applications of AR/VR; how VR/AR impacts human reality and experiences.

4:15pm – 4:30pm

Walk to Gates

4:30pm – 6:30pm

CLOSING DINNER

Speaker:

Tina Huang, Policy Program Manager, Stanford HAI

The final dinner will recap the entire boot camp, solicit feedback on what staffers enjoyed, and invite suggestions for areas of improvement. Senior HAI staff and directors will lead this conversation.

DAY 4: AUGUST 11, 2022

6:00am

Shuttle leaves hotel to SFO airport

Date/Time Stamp:

EMPLOYEE PRE-TRAVEL AUTHORIZATION

Pre-Travel Filing Instructions: Complete and submit this form at least 30 days prior to the travel departure date to the **Select Committee on Ethics in SH-220**. Incomplete and late travel submissions will **not** be considered or approved. This form **must** be typed and is available as a fillable PDF on the Committee's website at ethics.senate.gov. Retain a copy of your entire pre-travel submission for your required post-travel disclosure.

Name of Traveler: Oliver RiquelmeEmploying Office/Committee: Sen. Martin HeinrichPrivate Sponsor(s) (list all): Stanford UniversityTravel date(s): August 8, 2022 - August 11, 2022*Note: If you plan to extend the trip for any reason you **must** notify the Committee.*Destination(s): Stanford University, Stanford, CA

Explain how this trip is specifically connected to the traveler's official or representational duties:

As a Military Legislative Assistance, my portfolio focuses on the nexus of artificial intelligence (AI) and defense and commercial capabilities. My boss, Sen. Heinrich, is co-chair of the Senate AI Caucus, and attending this trip will expose me to different thought leaders and perspectives that can better inform how I advise the Senator on all things AI. Through this program, I will attend sessions on AI in different sectors, including national security, defense, healthcare, and more.

Name of accompanying family member (if any): N/ARelationship to Employee: ☐ Spouse ☐ Child

I certify that the information contained in this form is true, complete and correct to the best of my knowledge:

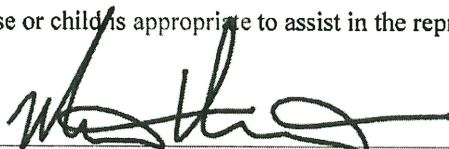
07/15/2022
(Date)
(Signature of Employee)

TO BE COMPLETED BY SUPERVISING SENATOR/OFFICER (President of the Senate, Secretary of the Senate, Sergeant at Arms, Secretary for the Majority, Secretary for the Minority, and Chaplain):

I, Martin Heinrich hereby authorize Oliver Riquelme
(Print Senator's/Officer's Name) (Print Traveler's Name)

an employee under my direct supervision, to accept payment or reimbursement for necessary transportation, lodging, and related expenses for travel to the event described above. I have determined that this travel is in connection with his or her duties as a Senate employee or an officeholder, and will not create the appearance that he or she is using public office for private gain.

I have also determined that the attendance of the employee's spouse or child is appropriate to assist in the representation of the Senate. (signify "yes" by checking box) ☐

07/15/2022
(Date)
(Signature of Supervising Senator/Officer)

PRIVATE SPONSOR TRAVEL CERTIFICATION FORM

This form must be completed by any private entity offering to provide travel or reimbursement for travel to Senate Members, officers, or employees (Senate Rule 35, clause 2). Each sponsor of a fact-finding trip must sign the completed form. The trip sponsor(s) must provide a copy of the completed form to each invited Senate traveler, who will then forward it to the Ethics Committee with any other required materials. The trip sponsor(s) should **NOT** submit the form directly to the Ethics Committee. Please consult the accompanying instructions for more detailed definitions and other key information.

The Senate Member, officer, or employee **MUST** also provide a copy of this form, along with the appropriate travel authorization and reimbursement form, to the Office of Public Records (OPR), Room 232 of the Hart Building, within thirty (30) days after the travel is completed.

1. Sponsor(s) of the trip (please list all sponsors): Stanford University
2. Description of the trip: The Stanford Institute for Human-Centered AI (HAI) designed the Congressional Boot Camp on AI to equip staffers with the knowledge needed to think critically about tech policy.
3. Dates of travel: August 8, 2022 - August 11, 2022
4. Place of travel: Stanford University, Stanford, CA
5. Name and title of Senate invitees: See attached
6. I *certify* that the trip fits one of the following categories:
☐ (A) The sponsor(s) are not registered lobbyists or agents of a foreign principal **and** do not retain or employ registered lobbyists or agents of a foreign principal **and** no lobbyist or agents of a foreign principal will accompany the Member, officer, or employee *at any point* throughout the trip.
– OR –
☒ (B) The sponsor or sponsors are not registered lobbyists or agents of a foreign principal, but retain or employ one or more registered lobbyists or agents of a foreign principal and the trip meets the requirements of Senate Rule 35.2(a)(2)(A)(i) or (ii) (*see question 9*).
7. ☒ I *certify* that the trip will not be financed in any part by a registered lobbyist or agent of a foreign principal.
– AND –
☒ I *certify* that the sponsor or sponsors will not accept funds or in-kind contributions earmarked directly or indirectly for the purpose of financing this specific trip from a registered lobbyist or agent of a foreign principal or from a private entity that retains or employs one or more registered lobbyists or agents of a foreign principal.
8. I *certify* that:
☒ The trip will not in any part be planned, organized, requested, or arranged by a registered lobbyist or agent of a foreign principal except for *de minimis* lobbyist involvement.
– AND –
☒ The traveler will not be accompanied on the trip by a registered lobbyist or agent of a foreign principal except as provided for by Committee regulations relating to lobbyist accompaniment (*see question 9*).

9. **USE ONLY IF YOU CHECKED QUESTION 6(B)**

I *certify* that if the sponsor or sponsors retain or employ one or more registered lobbyists or agents of a foreign principal, one of the following scenarios applies:

☐ (A) The trip is for attendance or participation in a one-day event (exclusive of travel time and **one** overnight stay) and no registered lobbyists or agents of a foreign principal will accompany the Member, officer, or employee *on any segment* of the trip.

– OR –

☐ (B) The trip is for attendance or participation in a one-day event (exclusive of travel time and **two** overnight stays) and no registered lobbyists or agents of a foreign principal will accompany the Member, officer, or employee *on any segment* of the trip (*see questions 6 and 10*).

– OR –

☒ (C) The trip is being sponsored only by an organization or organizations designated under § 501(c)(3) of the Internal Revenue Code of 1986 and no registered lobbyists or agents of a foreign principal will accompany the Member, officer, or employee *at any point* throughout the trip.

10. **USE ONLY IF YOU CHECKED QUESTION 9(B)**

If the trip includes two overnight stays, please explain why the second night is practically required for Senate invitees to participate in the travel:

11. ☒ An itinerary for the trip is attached to this form. I *certify* that the attached itinerary is a detailed (hour-by-hour), complete, and final itinerary for the trip.

12. Briefly describe the role of each sponsor in organizing and conducting the trip:

Stanford University is the sole sponsor of the trip, is a 501(C)3 and an institution of higher education.

Stanford will be providing the lodging, venue, and meals as part of the boot camp and will be designing and organizing all the sessions for the boot camp.

13. Briefly describe the stated mission of each sponsor and how the purpose of the trip relates to that mission:

Stanford University seeks to promote the public welfare by exercising an influence on behalf of humanity through teaching and rigorous scholarship. Through briefings and learning engagements, Stanford faculty will provide congressional staff with the knowledge needed to think critically on tech policy.

14. Briefly describe each sponsor's prior history of sponsoring congressional trips:

Stanford University has hosted technology related boot camps since 2014 for congressional staff.

Past boot camps focused on AI and cybersecurity and featured speakers such as Reid Hoffman and Condoleezza Rice.

15. Briefly describe the educational activities performed by each sponsor (other than sponsoring congressional trips):

Stanford University is an institution of higher education and is one of the world's leading research and teaching institutions.

16. Total Expenses for Each Participant:

	Transportation Expenses	Lodging Expenses	Meal Expenses	Other Expenses
☒ Good Faith estimate	\$1000 Economy airfare \$200 (Ground transportation)	\$735 3 nights x \$245	\$222 3 x \$74 per diem	N/A
☐ Actual Amounts				

17. State whether a) the trip involves an event that is arranged or organized *without regard* to congressional participation **or** b) the trip involves an event that is arranged or organized *specifically with regard* to congressional participation:

The trip involves an event that is arranged or organized specifically with regard to congressional participation.

18. Reason for selecting the location of the event or trip

The location of Stanford's campus will allow California based faculty to participate.

19. Name and location of hotel or other lodging facility:

The Sheraton Palo Alto. 625 El Camino Real, Palo Alto, CA 94301

20. Reason(s) for selecting hotel or other lodging facility:

Across from Stanford's campus.

21. Describe how the daily expenses for lodging, meals, and other expenses provided to trip participants compares to the maximum per diem rates for official Federal Government travel:

The daily expenses for lodging, meals, and other expenses will be at GSA per diem rates.

22. Describe the type and class of transportation being provided. Indicate whether coach, business-class or first class transportation will be provided. If first-class fare is being provided, please explain why first-class travel is necessary:

Round-trip airfare (coach) and ground transportation (coach) will be provided. Ground transportation will only be provided between the airport and campus/hotel in California.

23. ☒ I represent that the travel expenses that will be paid for or reimbursed to Senate invitees do not include expenditures for recreational activities, alcohol, or entertainment (other than entertainment provided to all attendees as an integral part of the event, as permissible under Senate Rule 35).

24. List any entertainment that will be provided to, paid for, or reimbursed to Senate invitees and explain why the entertainment is an integral part of the event:

N/A

25. I hereby *certify* that the information contained herein is true, complete and correct. (For trips involving more than one sponsor, you *must* include a completed signature page for each additional sponsor):

Signature of Travel Sponsor: 

Name and Title: Russell Wald, Director of Policy

Name of Organization: Stanford University

Address: 450 Jane Stanford Way, Stanford, CA 94305

Telephone Number: 202-630-2724

Fax Number:

E-mail Address: rwald@stanford.edu

PRIVATE SPONSOR TRAVEL CERTIFICATION FORM**SIGNATURE PAGE FOR ADDITIONAL SPONSOR***(to be completed by each additional sponsor)*

I hereby *certify* that the information contained on pages 1-4 of the certification form and any accompanying addenda, all submitted in connection with the _____ trip
to _____ is true, complete, and correct.
Dates of Travel (Month Day, Year)
Place of Travel

Signature of Travel Sponsor: _____

Name and Title: _____

Name of Organization: _____

Address: _____

Telephone Number: _____

Fax Number: _____

E-mail Address: _____

Instructions

(Do not file the Instructions with OPR)

General Instructions

- The Senate Select Committee on Ethics (“Ethics Committee”) has developed guidelines for evaluating privately-sponsored trips and for judging whether trip expenses are reasonable. Trip sponsors should consult the *Senate Select Committee on Ethics’ Regulations and Guidelines for Privately-Sponsored Travel*, including the *Glossary of Terms*, prior to filling out the *Private Sponsor Travel Certification Form* and contact the Ethics Committee at (202) 224-2981 with any additional questions. The Ethics Committee will make the final determination as to whether the expenses incurred during a privately-sponsored trip are reasonable.
- If there are multiple sponsors, they should jointly complete one *Private Sponsor Travel Certification Form* for the trip. Each travel sponsor should complete the signature block.
- When evaluating a trip proposal and judging the reasonableness of expenses, the Ethics Committee will consider the following factors:
 - a. the stated mission of the organization sponsoring the trip;
 - b. the organization’s prior history of sponsoring congressional trips, if any;
 - c. other educational activities performed by the organization besides sponsoring congressional trips;
 - d. whether any trips previously sponsored by the organization led to an investigation by the Select Committee on Ethics;
 - e. whether the length of the trip and the itinerary is consistent with the official purpose of the trip;
 - f. whether there is an adequate connection between a trip and official duties;
 - g. the reasonableness of the total amount spent by a sponsor of the trip;
 - h. whether there is a direct and immediate relationship between a source of funding and an event;
 - i. the maximum *per diem* rates for official Federal Government travel published annually by the General Services Administration, the Department of State, and the Department of Defense;
 - j. whether travel to a location or event is arranged or organized without regard to congressional participation, or whether it is specifically organized for Congressional staff; and
 - k. any other factor deemed relevant by the Select Committee on Ethics.

Consult the *Senate Select Committee on Ethics’ Regulations and Guidelines for Privately-Sponsored Travel*, including the *Glossary of Terms*, for further discussion of these factors.

- Responses to each question should be brief, consistent with the requirement to provide all relevant information. Attach additional pages, as necessary.
- To allow sufficient time for the Ethics Committee to review requests for privately sponsored travel, the participating Senate Members, officers, and employees must submit the completed form to the Ethics Committee at least **thirty (30) days** before the date of the proposed trip.

Filling out the Private Sponsor Travel Certification Form (Question by Question Instructions)

1. *Sponsor(s) of the trip (please list all sponsors):* A sponsor of a trip is any person, organization, or other entity contributing funds or in-kind support for the trip. A sponsor must have a significant role in organizing and conducting a trip and must have a specific organizational interest in the purpose of the trip. If Members, officers, and employees are participating in an event or fact-finding trip in connection with their duties, they may accept necessary travel expenses only from the event or trip sponsor.
2. *Description of the trip:* Provide a brief statement about the purpose of the trip.
3. *Dates of travel:* Provide the dates of departure and return.
4. *Place of travel:* Provide the destination(s) for the trip.
5. *Name and titles of Senate invitees:* Provide the name and title for each Senate Member, officer, or employee who is invited on the trip.
6. *I certify that the trip fits one of the following categories:* A Senate Member, officer, or employee may accept privately sponsored travel only from sponsor(s) of a trip that fits one of the categories listed. Consult the instructions for question 9 to determine if the trip meets the lobbyist accompaniment standard.
7. *Financing of the trip, earmarked funds and in-kind contributions:* Senate Members, officers, and staff may not accept privately-sponsored travel funded by a registered lobbyist or foreign agent. Members, officers, and staff may not participate in privately-sponsored travel when the sponsors accept funds or in-kind contributions earmarked for this particular trip from a registered lobbyist or agent of a foreign principal or from a private entity that retains or employs one or more registered lobbyists or agents of a foreign principal. Earmarking includes any direction, agreement, or suggestion -- formal or informal -- to use donated funds, goods, services, or other in-kind contributions for a particular trip or purpose.
8. *Lobbyist/agent of a foreign principal involvement:* Senate invitees may not participate in trips planned, organized, arranged, or requested by a lobbyist or foreign agent in more than a *de minimis* way, which means negligible or inconsequential. It would be considered inconsequential for one or more lobbyists or foreign agents to serve on the board of an organization that is sponsoring travel, as long as the lobbyists or foreign agents are not involved in the trip. It is also permissible for a lobbyist to respond to a trip sponsor's request to identify Senate invitees with interest in a particular issue relevant to a planned trip. However, a lobbyist is not allowed to solicit or initiate communication with a trip sponsor, have control over which Senate employees are invited on a trip, extend or forward an invitation to a participant, determine the trip itinerary, or be mentioned in the invitation.

Example: A trip sponsor that is a § 501(c)(3) non-profit organization asks a lobbyist to recommend staffers who might be most interested in joining a trip to the U.S.-Mexican border. If a lobbyist knows a staffer who has a particular interest in the DEA's activities at the border, then providing that information (in light of the trip sponsor's request), in and of itself, would not exceed a *de minimis* level of participation, and would be permitted. However, it would not be permissible for the lobbyist to initiate contact with the trip sponsor to suggest that a particular Senate staffer be invited or forward an invitation to that staffer. Consult the instructions for question 9 to determine if the trip meets the lobbyist accompaniment standards.

9. *Lobbyist/agent of a foreign principal accompaniment standards:* Senate Members, officers, and staff may not accept privately-sponsored travel from an entity that retains or employs one or more federally-registered lobbyists or foreign agents unless one of the listed scenarios applies. *At any segment of the trip* means lobbyists may not accompany the Senate invitee for parts of the travel to and from the event (not at the event itself or the location being visited). *At any point throughout the trip* means lobbyists may not accompany Senate invitees at any point to and from the event, at the event itself, or at the location being visited, other than in a *de minimis* way. This is a broader prohibition than the *at any segment of a trip* standard.

“De minimis” exception: Both lobbyist/agent of a foreign principal “accompaniment” prohibitions include a *de minimis* exemption. *De minimis* means negligible or inconsequential. The mere coincidental presence of a lobbyist or foreign agent at an event would likely be considered *de minimis*. But in making the final determination, the Ethics Committee will consider the totality of the circumstances, including the amount of time lobbyists or foreign agents are present at the event; the amount of direct contact they have with Senate invitees; and the amount of control a trip sponsor has over their presence or contact with Senate guests. For example, if the trip includes attendance at an event considered widely-attended under Rule 35(1)(c)(18), the trip sponsor is unlikely to know all attendees present. Thus, it is likely to be permissible for such widely-attended events to include both a Senate guest and a lobbyist. Similarly, an organization cannot possibly know all the other passengers taking the same flight or other common carrier to a given destination. Accordingly, the sponsor does not need to certify that it knows for certain that no lobbyist or foreign agent will be on such a common carrier.

10. *If travel includes two overnight stays:* The Ethics Committee may approve two overnight stays for trips sponsored by an entity that employs or retains one or more lobbyists or foreign agents under certain conditions. Consult Committee regulations for additional information.
11. *An itinerary for the trip is attached to this form:* The Ethics Committee will not review the trip request without a detailed (hour-by-hour), complete and final itinerary for the trip. As a general matter, the Ethics Committee advises that each travel day contain a minimum of 6 hours of officially-related activities for Senate invitees.
12. *Briefly describe the role of each sponsor in organizing and conducting the trip:* A sponsor must have a significant role in organizing and conducting a trip and must have a specific organizational interest in the purpose of the trip.
13. *Briefly describe the stated mission of each sponsor and how the purpose of the trip relates to that mission:* Provide a brief description of the stated mission of each sponsor and how it relates to the trip.
14. *Briefly describe each sponsor’s prior history of sponsoring congressional trips:* Provide a brief discussion of the sponsor’s history of sponsoring congressional travel. It is not necessary to list every trip.
15. *Briefly describe the educational activities performed by each sponsor (other than sponsoring congressional trips):* Provide a brief description of the educational activities performed by each sponsor. It is not necessary to list every individual activity; the description may be by kind or category of educational activity involved.
16. *Total expenses for each participant:* Indicate whether the figures provided are actual amounts or good faith estimates by checking the appropriate box. All trip expenses should be included. Expenses other than those for transportation, lodging, and meals must be individually listed and specified. Attach additional pages as necessary.

17. *Congressional participation:* For events that are arranged without regard to congressional participation (for example, annual meetings, conferences, seminars, and symposiums of trade associations, professional societies, business associations, and other membership organizations), the Ethics Committee may, but is not required to, allow Senate Members, officers, and employees to accept lodging and meal expenses that are commensurate with what is customarily provided to non-congressional attendees in similar circumstances. For events specifically arranged around congressional participation, lodging, meal expenses and other expenses must be "reasonable" in accordance with Ethics Committee regulations.
18. *Reason for selecting the location of the event or trip:* The location of the trip *must be related to its purpose*. A brief but detailed description of the reason for the selection of the location must be provided.
19. *Name and location of hotel or other lodging facility:* Include the exact name and address of the hotel or other lodging facility.
20. *Reasons for selecting hotel or other lodging facility:* Provide an explanation of the sponsor's rationale for selecting the particular lodging, include information such as proximity to the airport or site to be visited.
21. *Describe how the daily expenses for lodging, meals, and other expenses provided to trip participant compare to the maximum per diem rates for official Federal Government travel:* Where feasible and available, trip expenses for lodging and meals should generally be comparable to the government *per diem* rates. The circumstances surrounding a particular trip may legitimately require lodging and meal expenses to exceed these rates. Consult the Ethics Committee regulations for additional information.
22. *Describe the type and class of transportation being provided:* While coach or business-class fare may be accepted, first-class fare for any mode of transportation may be permitted only under limited conditions and only with specific prior written approval by the Ethics Committee. Transportation on a private or charter aircraft is not permitted for privately-sponsored travel under any circumstances.
23. *Expenses for recreational activity, alcohol, or entertainment:* The only recreational or entertainment activities that will be approved by the Ethics Committee are those that are provided to all attendees and are an integral part of an event. Alcoholic beverages are not considered to be a reasonable expense.
24. *List any entertainment that will be provided to, paid for or reimbursed to Senate invitees and explain why the entertainment is an integral part of the event:* Entertainment expenses that are not provided to all attendees and deemed an integral part of the event will not be approved by the Ethics Committee.
25. *Certification:* The trip sponsor *must* sign the form and certify that the information is true, complete, and correct. For trips with more than one sponsor, each additional sponsor *must* complete its own signature page and certify that the information contained in the form is true, complete, and correct.

Stanford HAI Congressional Boot Camp on AI

Syllabus

Course Description

Emerging digital technologies—especially artificial intelligence (AI)—are among the most consequential forces of the 21st century: they are transforming economies, challenging legal and political norms, and reconfiguring society. Governments attempting to navigate this era must adapt regulatory regimes, social safety nets, fiscal policies, taxation, and foreign affairs as digital technologies continue to reshape labor markets, the industrial structure, the distribution of economic rewards, and the global balance of power.

Congressional staff play a key role in shaping and developing policy on critical technology areas such as AI, rapid advancements in AI make it challenging for many to keep up with a quickly evolving field. The Stanford Institute for Human-Centered AI (HAI) is specifically designed for Congressional staff to explore the latest in AI developments, equipping participants with the comprehensive knowledge needed to think critically about regulating and governing this emerging technology.

AI is not solely a technical matter, though it is easy for policy analysts and others to get lost in the technical details. Understanding the impact of AI on society is a multi-faceted enterprise that requires drawing on knowledge from computer science, economics, law, political science, psychology, and a host of other disciplines. To this end, this boot camp draws upon the expertise of AI experts in academia, as well as leaders from civil society and industry.

The bicameral, bi-partisan boot camp consists of many sessions unpacking what AI means for international security, future of work, healthcare, including a field trip to the Stanford Virtual Human Interaction Lab for an interactive experience. We hope all participants will leave the boot camp with the conceptual framework needed to address the emerging technology landscape today and better anticipate the challenges of tomorrow.

Travel

Monday, August 8th

6:45 am ET - 9:31am PT

United Airlines Flight #277
IAD to SFO

Thursday, August 11th

8:40 am PT - 5:01am ET

United Airlines Flight #1954
SFO to DCA

Day 1: August 8, 2022

9:31am **Arrival at SFO airport**

9:31am -11:30am **Travel to hotel and campus**

11:30am -12:00pm **Welcome Session and Lunch**

Speaker:

- Fei-Fei Li, Sequoia Professor in the Department of Computer Science, Stanford University; Co-Director of the Stanford Institute for Human-Centered Artificial Intelligence

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.

12:30pm -1:30pm **Session 1: Mapping the AI Landscape**

Speaker:

- Peter Norvig, Distinguished Education Fellow at the Stanford Institute for Human-Centered Artificial Intelligence

Artificial Intelligence (AI) is not comprised of a single technology, but many. Moreover, the AI technologies that we see being deployed around the world today vary widely in their core features, capabilities, and use potential. This course provides a birds eye view of the AI landscape, key subjects, and variations that are important for all policy analysts to understand. Topics include machine learning, deep learning and neural networks, computer vision, natural language processing, supervised and unsupervised learning, compute power, narrow versus general AI, among others.

Learning Objectives:

Building a foundational understanding of AI and its different types of models; recognizing that AI is not simply coding and computer science, but requires interdisciplinary analysis

1:30pm - 2:30pm **Session 2: AI and Safety**

Speaker:

- Anthony Corso, Executive Director, Stanford Center for AI Safety; Aeronautics and Astronautics Postdoctoral Researcher, Stanford University

The consequences of deploying robust AI and decision-making technologies in safety-critical systems such as driverless vehicles and autonomous aircraft are enormous. Challenges to the human designers of AI in this field range from vast sets of edge cases, environmental uncertainties, constantly evolving landscapes, among others. Developers must also make difficult—and often politically fraught—decisions around operational efficiency, react to particular uncertainties, and define acceptable risk parameters.

Learning Objectives:

What makes an AI system robust, and in turn, what makes an AI system brittle; why it is challenging for developers to mitigate or eliminate all safety risks in an AI system

2:30pm - 3:30pm

Session 3: The Fuel of AI: Data (And its Perils)**Speakers:**

- Jen King, Privacy and Data Policy Fellow, Stanford Institute for Human-Centered Artificial Intelligence
- James Zou, Assistant Professor of Biomedical Data Science, Stanford University
- Russell Wald, Director of Policy, Stanford Institute for Human-Centered Artificial Intelligence

Contemporary AI technologies run on data. 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 non-obvious proxies) are accounted for in their AI systems. Moreover, different social values around privacy, data ownership, and data creation—and the policies resulting from them—will impact what AI technologies are possible today and what the future paths of innovation in AI will look like. On top of all this, geopolitics and economic futures will be determined by the choices we make around data policy.

Learning Objectives:

The recent data boom and how it has contributed to AI advancements; obstacles of collecting and cleaning data; different

ways in which data can be biased; how policies around data and privacy can have ripple effects in the data economy

3:30pm - 4:30pm

Session 4: Foundation Models

Speakers:

- Percy Liang, Associate Professor of Computer Science, Stanford University
- Rishi Bommasani, Computer Science PhD Candidate, Stanford University

Recently, a new successful paradigm for building AI systems has emerged: train one model on a huge amount of data and adapt it to many applications. We have deemed such a model, a foundation model. This session unpacks how foundation models were discovered, the requirements to build one, expected and unexpected consequences of these models, and other hot topics surrounding the use of massive AI models. It's time to separate what's real from what's hype for policy analysts.

Learning Objectives:

What differentiates foundation models from regular AI models; the exciting potential and concerning consequences of foundation models; speculating the future of foundation model research

4:30pm - 6:00pm

Dinner: AI and the Future of Work

Speakers:

- Erik Brynjolfsson, Director of the Digital Economy Lab and Jerry Yang and Akiko Yamazaki Professor and Senior Fellow, Stanford Institute for Human-Centered Artificial Intelligence; Jerry Yang and Akiko Yamazaki Professor and Senior Fellow, Stanford Institute for Human-Centered Artificial
- Christie Ko, Executive Director of the Digital Economy Lab, Stanford Institute for Human-Centered Artificial Intelligence

AI and automation will undoubtedly have a rippling effect on today's workforce and the future of work. The most mainstream narrative instills fear that AI could displace workers and funnel profits up to a select few. However, AI also has the potential to augment and supercharge labor, ensuring the benefits of AI are spread and enjoyed widely. This session dives into deeper detail

on what exactly we should expect as AI and automation integrates into the economy. We will separate the myths from the realities surrounding the current impacts of AI on work and how policy can reshape and guide what the future holds.

Learning Objectives:

How AI and automation is expected to shift the current state of the workforce; ways to ensure the benefits and wealth of AI in the economy is enjoyed by most, and not a few

Day 2: August 9, 2022

8:30am - 9:00am

Breakfast/Debrief

Speakers:

- Russell Wald, Director of Policy, Stanford Institute for Human-Centered Artificial Intelligence
- John Robichaux, Director of Education, Stanford Institute for Human-Centered Artificial Intelligence

Director of Policy Russell Wald and Director of Education John Robichaux will host a morning debriefing on what staffers learned at previous sessions and engage in a dialogue to reinforce key concepts from earlier sessions. Additionally, they will preview the Day 2 sessions. Ample time will be given to answer staff questions.

9:00am - 10:00am

Session 1: Artificial Intelligence and International Security

Speakers:

- Herb Lin, Hank J. Holland Fellow in Cyber Policy and Security at the Hoover Institution, Stanford University
- Brad Boyd, Visiting Fellow at the Hoover Institution, Stanford University
- Harold Trinkunas, Deputy Director of the Center for International Security and Cooperation at the Freeman Spogli Institute, Stanford University

AI is primed to transform the international security landscape. From predictive maintenance to augmenting a warfighter's stamina, AI is set to strengthen military capabilities worldwide. With these new capabilities comes the development of new security norms and shifting power dynamics that the world has not

experienced since the emergence of nuclear weapons post World War II. How will traditional understandings of defense, offense, deterrence, and diplomacy change with the introduction of AI? What does AI leadership look like from a security perspective? Are countries better off as first adopters or fast movers? What are the prospects for international cooperation?

Learning Objectives:

Different ways (not just on the physical battlefield) that AI can strengthen military capabilities; understanding traditional concepts of security and how they may change with AI

10:00am - 10:15am

Break

10:15am - 11:15am

Session 2: Artificial Intelligence and Cyber Security

Speaker:

- Andy Grotto, William J. Perry International Security Fellow at the Cyber Policy Center and a Research Fellow at the Hoover Institution, Stanford University

AI is remaking the cybersecurity threat environment. Countries, sub-state, and trans-national entities—including governmental, corporate, and civil society actors—are all threatened by increasingly sophisticated attackers. These cyber adversaries range from state agents to political hacktivists, but each share a common aim of circumventing security measures for their desired ends. This session will analyze how AI is changing cybersecurity offensive and defensive measures and what we can expect as new cyber tactics are deployed in cyberspace.

Learning Objectives:

What is cyberspace and cybersecurity; how has cybersecurity evolved in recent years and what the introduction of AI will do to change it; new offensive/defenses cyber tactics and possible responses

11:15am - 12:15pm

Session 3: Geopolitics and China

Speakers:

- Oriana Mastro, Center Fellow at the Freeman Spogli Institute for International Studies, Stanford University

- Daniel Zhang, Policy Research Manager, Stanford Institute for Human-Centered Artificial Intelligence
- Russell Wald, Director of Policy, Stanford Institute for Human-Centered Artificial Intelligence

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 economic, political, and military advantage. China's authoritarian regime is also fundamentally anti-democratic, using technology to commit human rights abuses at home and abroad. 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 regain and maintain its technological superiority.

Learning Objectives:

Brief history of U.S.-China relations; Differing innovation ecosystems in each country; China's intention and strategy to becoming a global leader in AI and how the U.S. compares

12:15pm - 12:30pm

Break

12:30pm - 1:30pm

Session 4: Economics of AI and Lunch

Speaker:

- Susan Athey (TBD), Economics of Technology Professor at the School of Humanities and Sciences, Stanford University

AI's economic impact goes well beyond the future of work and labor forces alone. AI has wide implications for large-scale economies, and little regulation exists to guide its integration into various firms. This session will address how firms consider AI use-cases within their companies and integrate these new technologies into their business models. Additionally, this session will discuss what the U.S. government and society should expect and how to prepare for the coming changes to labor markets.

Learning Objectives:

What AI use-cases firms may consider adopting; how these AI systems will shift labor markets

1:30pm - 3:00pm

Hotel Break

3:00pm - 4:00pm

Session 5: Industry Perspectives**Speakers:**

- Jack Clark, Co-Chair of the AI Index Steering Committee, Stanford Institute for Human-Centered Artificial Intelligence; Co-Founder of Anthropic
- Rachel Gillum, Head of Global Policy, Salesforce

America's technological might rests on its robust innovative ecosystem. Silicon Valley, which is home to venture capital, startups, and leading tech firms, is arguably the global center of tech innovation. This session will bring together leading figures in the Silicon Valley ecosystem including tech executives, startup founders, and venture capitalists to discuss the vibrancy of the Valley and draw on strengths and weaknesses of this innovative geography. Panelists will offer their own perspectives of starting, funding, and running successful companies so participants can better understand how industry leaders approach tech innovation.

Learning Objectives:

Understanding the Silicon Valley innovation ecosystem; unique challenges and opportunities startups and giants face; industry perspective of how policy impacts their ability to grow their firms

4:00pm - 5:00pm

Reception

5:00pm - 6:30pm

Keynote Dinner - Democracy and AI**Speakers:**

- Francis Fukuyama, Olivier Nomellini Senior Fellow at the Freeman Spogli Institute, Stanford University
- Condoleezza Rice, Denning Professor in Global Business and the Economy and Tad and Dianne Taube Director at the Hoover Institution, Stanford University
- Tino Cuéllar, President, Carnegie Endowment for International Peace

The intention and determination of today's great powers—of both democratic and authoritarian backgrounds—to lead in AI is clear. As AI continues to proliferate societies around the world, how can

the United States and other like-minded countries ensure these new technologies are developed and deployed with democratic values and norms in mind? What are potential areas for collaboration and opportunities to develop technological alliances? And if the United States and other democratic nations fail to lead in AI, which other countries—especially those with authoritarian foundations—may rise to fill the leadership gap? This session will dive into the urgency and importance of U.S. technological leadership, how AI can enhance democratic values, and the consequences of failing to do so.

Learning Objectives:

How AI can strengthen or undermine democracy; the pros and cons of international collaboration or alliances

Day 3: August 10, 2022

8:30am - 9:00am

Breakfast

9:00am - 10:00am

Session 1: AI and Education

Speakers:

- Dan Schwartz, James Quillen Dean and Nomellini & Olivier Professor of Educational Technology, Stanford University
- Emma Brunskill, Associate Professor of Computer Science, Stanford University
- John Robichaux, Director of Education, Stanford Institute for Human-Centered Artificial Intelligence

AI has the potential to dramatically improve education. From teacher support to personalized student engagement, AI, at best, has the ability to 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 with the introduction of AI. This session will unpack how AI can be leveraged to improve the education system without causing harm to teachers and students.

Learning Objectives:

AI's potential to improve education; possible risks of introducing AI in education, especially related to children

10:00am - 11:00am

Session 2: Public Sector AI

Speaker:

- Dan Ho, William Benjamin Scott and Luna M. Scott
Professor of Law, Stanford Law School

The U.S. government is in desperate 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 as important roles in ensuring the successful modernization of the U.S. 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 U.S. government serve its citizens.

Learning Objectives:

Challenges of AI integration in government; different types of AI use-cases for government; various factors needed to ensure AI integration is successful

11:00am - 11:15am

Break

11:15am - 12:15pm

Session 3: Transforming Healthcare Through Innovation

Speakers:

- Nigam Shah, Professor of Medicine, Stanford University
- Curt Langlotz, Professor of Radiology and of Biomedical Informatics Research, Stanford University
- Alyce Adams, Stanford Medicine Innovation Professor and Professor of Epidemiology and Population Health and of Medicine, Stanford University
- Sherri Rose, Associate Professor of Health Policy and Co-Director of the Health Policy Data Science Lab, Stanford University

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, gene editing which has the potential to cure debilitating diseases. Healthcare is on the cusp of a revolution that will advance human well-being. Moreover, the U.S. faces an incredible shortage of qualified healthcare workers, which raises the question, can AI help "save" the U.S. system? This session will highlight the coming changes in healthcare, the opportunities and risks AI presents, how policies can ensure safe and robust health systems.

Learning Objectives:

Recent medical AI successes; future opportunities for AI in healthcare; risks and consequences of using AI in healthcare

12:15pm - 1:15pm

Session 4 (Lunch): AI, Arts, and Culture

Speaker:

- Michele Elam, William Robertson Coe Professor in the Humanities, Stanford University; Faculty Associate Director, Stanford Institute for Human-Centered Artificial Intelligence

Artistic and cultural expressions are one of the hallmarks of advanced societies. Today we understand the intersection of arts and culture with wellness, innovation, creativity, diversity, and health. AI is expanding artistic and cultural expressions, opening up new possibilities for our state, local, and federal arts and culture programs. Going well beyond STEM interests alone, this session provides insights into places where AI is opening new opportunities for arts and culture policy, and places where the merging of AI technologies in the arts sector can make a powerful impact.

Learning Objectives:

How AI is changing arts and culture; what this means for federal policy on arts and culture programs

1:15pm - 1:30pm

Break

1:30pm - 2:30pm

Session 5 (Closing Keynote): AI and Dopamine Addiction

Speaker:

- Anna Lembke, Professor of Psychiatry and Behavioral Science, Stanford University

Addiction has long ravaged humanity, from drug abuse to gluttonous diets. But how has AI further fueled, and even introduced new addictions for humans? In recent years, social media platforms have designed algorithms to keep users engaged for as long as possible and dark patterns have emerged on e-commerce platforms to urge consumers into purchasing superfluous goods. This session will unpack how AI has introduced more and new gateway opportunities for human addiction and how to combat these digital temptations.

Learning Objectives:

What is addiction and the pain/pleasure balance; how AI has shifted society's pain/pleasure balance; strategies to rebalance our pain/pleasure perceptions

2:30pm - 4:00pm

Session 6: Trip to the Virtual Human Interaction Lab

Speaker:

- Jeremy Bailenson, Founding Director of Virtual Human Interaction Lab, Stanford University

Staffers will take a trip to Stanford's Virtual Human Interaction Lab (VIHL) to get hands-on experience in virtual and augmented reality technology. This session will dive into how VR/AR will transform society, how to create VR/AR that will enhance and not detract from reality, and the psychological processes that people undergo while using VR/AR.

Learning Objectives:

Difference between AR and VR; different applications of AR/VR; how VR/AR impacts human reality and experiences

4:00pm - 6:00pm

Dinner

The final dinner will recap the entire boot camp and seek feedback on what the staffers enjoyed and offer suggestions for areas of improvement. Senior HAI staff and directors will lead this conversation.

Day 4: August 11, 2022

8:40am

Fly out day



Stanford University
Human-Centered
Artificial Intelligence

July 5, 2022

Dear Mr. Oliver Riquelme,

On behalf of the Stanford Institute for Human-Centered Artificial Intelligence (HAI), I am pleased to invite you to the inaugural Stanford Congressional Boot Camp on Artificial Intelligence. The Boot Camp will take place August 8-11, 2022 at Stanford University.

Emerging digital technologies will be among the most consequential forces of the 21st century: they will transform economies, challenge legal and political norms, and reconfigure society. Governments attempting to navigate this era will adapt regulatory regimes, social safety nets, fiscal policies, taxation, and foreign affairs as digital technologies reshape labor markets, the industrial structure, the distribution of economic rewards, and the global balance of power.

We know that Congressional staff play a key role in shaping and developing policy on critical technology areas such as artificial intelligence (AI). Rapid advancements in AI make it challenging for many to keep up with a quickly evolving field. That is why the Stanford Institute for Human-Centered AI (HAI) specifically designed the Congressional Boot Camp on Artificial Intelligence to explore the latest in AI developments, equipping participants with the comprehensive knowledge needed to think critically about regulating and governing this emerging technology.

The bicameral, bi-partisan Boot Camp consists of many sessions unpacking what AI means for international security, future of work, healthcare, and includes field trips to Stanford labs for interactive experiences. Each session will feature world-class scholars from Stanford University, leaders from Silicon Valley, and pioneers from civil society organizations.

We hope you will accept this invitation to join us in-person in August. To formally join us, you must fill out the participation form, turn in your ethics paperwork by Friday, July 8th, and alert HAI's Policy Program Manager, Tina Huang, (tina.huang@stanford.edu), that you have done so. In the meantime, please mark your calendars and contact Tina if you have any questions. We look forward to welcoming to Stanford's campus, "the Farm," this August.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Russell Wald', written over a horizontal line.

Russell C. Wald
Director of Policy