

**SENATE COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION**

Full Committee
“Nominations Hearing”
Wednesday, September 17, 2025, at 10:00 A.M.

DEMOCRATIC QUESTIONS FOR THE RECORD

Dr. Ethan Klein

COVER PAGE

RANKING MEMBER MARIA CANTWELL (D-WA)

AI Regulation. On September 10, 2025, the Senate Commerce Committee heard from the Office of Science and Technology Policy's (OSTP) Director, Michael Kratsios, on the White House AI Action Plan and from Chair Cruz on his 'light touch' approach, which includes creating an AI sandbox where the OSTP Director could waive federal regulations on AI. I agree that America must move quickly to maintain our edge in AI and stay ahead of China in this race.

History shows that simply sweeping aside rules without putting a real framework in place is not pro-innovation. A 'wild west' approach does not give industry the standards, test beds, or certainty it needs to build trust and encourage long-term adoption.

Question 1: Yes or No: Do you believe it is appropriate for the OSTP Director to have unilateral authority to waive federal regulations in an AI sandbox, as Chair Cruz has proposed?

Answer: Regulatory sandboxes are an invaluable tool to enable the deployment and testing of technologies in real-world settings to collect the data needed to update regulatory regimes, without compromising safety. OSTP does not read the legislation to provide the Director unilateral authority to waive Federal regulations, but rather to give the Director a leading role in advancing innovative uses of emerging technologies to support their responsible deployment. I believe it is essential for OSTP to work with the relevant agencies to examine existing rules and regulations and identify needed changes that will help us to maintain our Nation's edge in AI and foster innovations.

Question 2: Yes or No: Do you agree that preempting state laws without simultaneously building a federal framework with real guardrails would leave both consumers and industry at risk? Why or why not?

Answer: President Trump has made clear his concerns about how a patchwork of state AI laws will compromise U.S. leadership. Applications of AI are today already regulated at the sector-specific, use-case-specific level by relevant Federal bodies, including the Federal Aviation Administration, the Food and Drug Administration, etc., with appropriate guardrails consistent with those bodies' statutory missions. Where appropriate, greater regulatory clarity, or in some cases, new regulations may be needed at the Federal level to enable responsible AI innovation. If confirmed, I look forward to working with you and your colleagues to ensure sufficient Federal frameworks for AI applications are in place.

Question 3: What minimum protections do you think Congress should ensure are in place before preemption is even considered?

Answer: As discussed above, applications of AI are already regulated at the sector-specific, use-case-specific level by relevant Federal bodies. If confirmed, I look forward to working with you and your colleagues to ensure sufficient Federal frameworks for AI applications are in place.

Question 4: Last Congress, this Committee introduced several bills that are consistent with the White House AI Action Plan. For example, the Future of AI Innovation Act, NSF AI Education Act, and Small Business AI Training Act all encourage AI innovation by creating AI standards,

testbeds, R&D, workforce development, and AI adoption in small businesses. Would you support those bills for this Congress?

Answer: If confirmed, I look forward to working with you and your colleagues on any legislation that promotes and protects continued American leadership in AI innovation.

Spectrum Management and National Competitiveness. OSTP has historically played a crucial role in advising the President on spectrum policy – one of the most valuable resources in our digital economy.

Previous Chief Technology Officers (CTO) have been instrumental in shaping America's wireless future, coordinating between agencies to balance competing demands from aviation safety, national defense, commercial carriers, and innovation. The office that you are nominated to, and that you have been serving in, helps determine whether America leads in 6G, whether critical safety systems operate without interference, and whether American innovators have the spectrum they need to build the next generation of innovations. These aren't just technical decisions – they're choices about what we value as a nation.

Question 1: Knowing that Wi-Fi carries more than 70 percent of mobile data traffic, would you support policies that could degrade Wi-Fi performance for millions of Americans by reducing unlicensed spectrum allocations?

Answer: While the President's statutory telecommunications advisor is the NTIA Administrator and the unlicensed non-federal spectrum that Wi-Fi uses is administered by the FCC, OSTP can provide technical leadership to ensure that America's airwaves are used effectively and efficiently. If confirmed, I look forward to collaborating with your office so that our spectrum policy remains predicated on sound technical decisions that ensures this precious resource is stewarded in a manner consistent with the national interest.

Question 2: The World Radiocommunication Conference happens every four years and is the venue where countries and regions around the world determine global and regional spectrum policy. OSTP has long played a significant role in coordinating the U.S. positions for this conference. Are you concerned about securing international support for U.S. spectrum priorities when the Administration's trade wars may have alienated our allies and partners?

Answer: The Trump Administration remains committed to delivering spectrum leadership at WRC-27 that advances American interests. Because of President Trump, we have never been in a stronger negotiating position to deliver wins for the American people. If confirmed, I look forward to working with you and your office on supporting American technology interests at WRC and other important standards fora.

Spectrum and Reconciliation. OSTP plays an important role in providing technical advice and counsel to the President about technology issues, including on issues impacting a range of stakeholders across government and industry. The recently passed reconciliation bill requires that critical bands of federal spectrum be sold for commercial use, which could compromise mission-critical safety functions.

Question 1: Yes or No: Should we put aviation safety at risk for marginal improvements in 5G speeds?

Answer: I believe you are referencing the FCC's intention to study portions of the Upper C band (3.98-4.2 GHz) for future auction, which is adjacent to spectrum used by aircraft radio altimeters. I have been following this issue closely and am optimistic that a combination of technology and policy innovations can deliver a win-win outcome where new spectrum resources are unlocked for advanced mobile communications while also ensuring aviation safety. While spectrum issues are often considered zero-sum, I believe that collaboration between the telecom and aviation industries, their regulators, and stakeholders – in combination with rigorous technical analysis – can deliver outcomes that keep America leading the 6G race, protect travelers, and enhance national security. If confirmed, I look forward to working with you and your office on this matter.

Question 2: Yes or No: Should we degrade our ability to predict hurricanes, fires, floods, or tornadoes by reallocating spectrum that enables these radar and satellite systems?

Answer: Spectrum resources – both on the Federal and non-Federal table of allocations – are used to support a number of vital national missions, including weather prediction, satellite communications, and national defense. There are a number of spectrum resources used for weather satellites and terrestrial radars across a wide range of bands, and each individual allocation has unique technical challenges and opportunities. I agree that these national missions are vital. If confirmed, I commit to ensuring that OSTP remains positioned as a technical leader to support the President and the interagency on spectrum matters.

Experience. The U.S. CTO plays a pivotal role in setting the nation's science and technology priorities, coordinating across federal agencies, and advising the President directly. It is a position that requires both deep technical expertise and experience navigating the complex machinery of government. Others that have held this role include a former Virginia Secretary of Technology, Vice President of Business Development at Google, and CTO of the U.S. Department of Health and Human Services.

Question 1: Please outline the relevant experience you bring to the CTO role specifically.

Answer: I agree that the USCTO role within OSTP requires deep technical expertise and experience navigating the complex machinery of government. I am the first CTO nominee with a PhD, having spent years exploring the frontiers of scientific understanding and engineering novel nuclear technologies, working with both international research institutes and leading national laboratories. I am also the nominee with the most experience working in OSTP, having worked in or supported the office under three Administrations and for nearly six years in varying capacities.

During my first stint as a tech policy advisor at OSTP in the first Trump Administration, I worked on a broad range of emerging technology initiatives, drafting executive actions across AI, nuclear, biotech, and drones. I led interagency policy development efforts on critical technologies like nuclear fusion, drafted guidance on Federal research and development budget

priorities, and coordinated Presidential convenings with Fortune 100 CEOs on topics including “American Leadership in Emerging Technologies” and “AI for American Industry.”

Outside of government, I have held varied roles advising “little tech” on engaging with government as a venture fellow at a deep-tech incubator; providing American aerospace manufacturing companies with financial advisory at an investment bank; and organizing national security technology career fairs, hackathons, and policy events as the co-founder of a mission-focused organization. These experiences across the science and technology ecosystem have given me a unique vantage point on the government policies needed to support continued American innovation.

Question 2: What is the largest team of employees you have managed?

Answer: I have led diverse and interdisciplinary teams in multiple contexts. During my Ph.D. at MIT, I worked on large, collaborative projects involving national laboratories, academic researchers, and junior graduate students, efforts that required coordination across institutional boundaries and mentorship of early-career scientists. At OSTP, I led multi-month policy development efforts that involved a dozen different department and agency representatives. In a small but high-impact office like OSTP, effective management is less about top-down direction and more about enabling experts to excel. Portfolio areas are led by technical policy advisors who are the subject-matter authorities in their domains. If confirmed, I will seek to play a supportive and amplifying role – removing obstacles, aligning priorities, and ensuring OSTP’s technical policy advisors have the resources and visibility they need to drive ambitious interagency policy efforts.

Sexual Harassment at Research Institutions. GAO recently sent out for agency comment a report entitled “Actions Needed to Ensure Consistent Agency Policies for Research Institutions.” The report found that although it is OSTP’s responsibility to monitor how other agencies develop their policies to address sexual harassment at federally funded research institutions, they do not have staff in place to lead this effort, and that their imposed guidelines omit key elements required under the Research and Development, Competition, and Innovation Act (enacted as a part of the CHIPS Act in 2022).

Question 1: If confirmed, will you prioritize bringing on staff to address this important matter, if OSTP has not yet?

Answer: Those guidelines were developed during the Biden Administration, as I understand OSTP has noted to GAO. In addition, I understand OSTP staff communicated to GAO that OSTP is actively working to recruit subject matter experts in multiple disciplines and are looking forward to re-convening the National Science and Technology Council, which brings together interagency experts to address key topics, such as this one. If confirmed, I will support OSTP efforts to coordinate Federal research agency efforts to reduce the prevalence of sex-based and sexual harassment involving award personnel.

Question 2: One of the key elements required by the Act that was omitted in OSTP’s policy guidelines was the need for recipients to report initiated investigations and for agencies to share

harassment reports. GAO has warned this creates a gap that may enable repeat offenders to continue receiving federal support. If confirmed, will you advocate for a change to address this discrepancy?

Answer: If confirmed, I will support OSTP efforts to coordinate Federal research agency efforts to reduce the prevalence of sex-based and sexual harassment involving award personnel, including ensuring repeat offenders do not continue receiving federal support.

Fusion. Fusion energy has the potential to provide a virtually limitless source of clean, safe, and reliable power, and Washington State is home to some of the most advanced private fusion companies in the country. OSTP will have an important role in coordinating federal research and supporting pathways for commercialization.

Question 1: What specific actions should the federal government be taking to accelerate fusion energy development and deployment, and how can OSTP best support both public-private partnerships and research initiatives in this field?

Answer: The government can pursue prizes challenges, public-private partnerships, and other novel funding mechanisms to pursue fusion and other emerging technologies. Federal support for accelerating fusion energy development deployment can include continued support for fusion R&D, use of experimental facilities and data, and pro-innovation policy to promote a global fusion market. Programs such as the Fusion Innovation Research Engine (FIRE) Collaboratives and the Innovation Network for Fusion Energy (INFUSE) awards can encourage collaboration between the private fusion industry, DOE national labs, and universities.

SENATOR AMY KLOBUCHAR (D-MN)

AI Rules of the Road. I am working to make sure we have stronger rules of the road in place when it comes to AI use. My bill with Majority Leader Thune—the AI Research, Innovation, and Accountability Act—for example, would improve testing and evaluation for critical-impact AI systems used to make decisions about critical infrastructure.

- If confirmed, will you work with me to develop thoughtful federal standards that can help drive the adoption of AI across industries?

Answer: If confirmed, I will work with you and your colleagues on any legislation that promotes and protects continued American leadership in AI innovation.

Data Center Energy Demands. A December 2024 report from the North American Electric Reliability Corporation indicated Minnesota’s regional energy grid is at high risk for a shortfall in electricity supply over the next five years. I am concerned that the increased demand for electricity from AI data centers will only make this worse, leaving Americans with rising utility bills and unpredictable blackouts.

- How are you working to ensure that American households do not shoulder the cost of energy shortfalls?

Answer: President Trump has been clear about the need for American energy dominance. We know that more energy generation must be connected to the grid. Expanding centralized energy generation across a range of sources, including advanced nuclear, remains critical to maintaining grid reliability and affordability. If confirmed, I look forward to working with you to advance policies that preserve affordability for ratepayers.

- How can the federal government help industry improve the load balancing capabilities of data centers to prevent blackouts?

Answer: President Trump has also been clear that for American energy dominance companies must be able to supply their own power. If confirmed, I look forward to working with you to advance policies that preserve affordability for ratepayers and ensure stable load for all consumers, including data center operators, achieving energy dominance without compromising American leadership in AI.

SENATOR BEN RAY LUJÁN (D-NM)

1. **Yes or No: Do you believe that the federal government should push for more transparency in the scientific process?**

Answer: I agree that science should be transparent and constantly challenged in order to advance the scientific process. Transparency in science enables researchers to build off of one another's results, which is why transparency is one of the nine tenets specifically called out in President Trump's executive order on "Restoring Gold Standard Science."

2. **Yes or No: Do you believe that federal decision-making should be grounded in science?**

Answer: Federal decision-making should be informed by the best available science, with full recognition of its uncertainties, alongside other considerations such as legal, economic, and security factors. That is why in May, President Trump signed Executive Order 14303 "Restoring Gold Standard Science," and in June, the OSTP Director issued guidance to agencies on how to implement gold standard science across their agency activities.

3. **Yes or No: Do you believe scientific endeavors should be free from political influence?**

Answer: I believe that scientific research and discovery should be free from political influence. At the same time, scientific endeavors, such as setting priorities for R&D funding or launching national initiatives, should align with the administration's broader priorities and must serve the public interest.

4. **What will you do if you are asked or instructed to make a decision that is directly contrary to the scientific evidence?**

Answer: The role of OSTP is to ensure that the best available scientific understanding is clearly represented in interagency discussions and in advice to the President and senior decisionmakers. Scientific evidence is rarely the only factor, with legal, economic, and security considerations factoring into policy decisions. If confirmed, I will ensure that the scientific evidence is accurately represented and adequately considered in its proper role within the broader decision-making process.

5. **What is your strategy for pushing for greater reliance on scientific findings within the current administration?**

Answer: In May 2025, President Trump signed an executive order to restore gold standard science, and in June, the OSTP Director issued guidance to agencies on how to implement gold standard science across their activities. If confirmed, I will work with agencies to ensure that they are implementing gold standard science in accordance with these directives.

6. **Yes or No: Would you go against a direct order from the President or his cabinet if you believed it put lives at risk or was illegal?** “I do not believe the President would ever give such an order” or any similarly evasive statement is not an acceptable answer.

Answer: The President would never give such an order, and I would not do anything unlawful or put lives at risk.

7. **Yes or No: Did Joe Biden lawfully win the 2020 presidential election?**

Answer: Joe Biden was certified as the winner of the 2020 presidential election.

8. **Yes or No: Did Donald Trump lawfully win the 2024 presidential election?**

Answer: Donald Trump was certified as the winner of the 2024 presidential election.

SENATOR JOHN HICKENLOOPER (D-CO)

Artificial Intelligence - Road Ahead

AI is a transformative technology that is kickstarting another industrial revolution.

The recent AI Action Plan calls for new investments in R&D to enable researchers to experiment with AI models in the cloud-based National AI Research Resource (NAIRR), better understand how AI model outputs are created based on user inputs - AI interpretability, and increase investments to help users identify and detect AI-generated content.

More work needs to be done to establish new standards for issues such as independent evaluations for AI model development and use and copyright protections for the creative works of artists.

Question 1: Mr. Klein, how would you work to ensure the perspectives of companies, academics, consumers, and states are incorporated into OSTP's coordination of the AI Action Plan?

Answer: The role of OSTP is to coordinate implementation of the AI Action Plan across the Federal Government, while ensuring that the perspectives of all relevant stakeholders are meaningfully represented. The RFI issued by OSTP in formulating the AI Action Plan received nearly 10,000 responses from across society. If confirmed, I will work to ensure that engagement mechanisms, such as public comment opportunities and stakeholder roundtables, are used to their full effect to solicit a broad and myriad set of perspectives that can meaningfully inform the Action Plan's implementation and achievement of the objectives detailed therein.

Quantum

Quantum Information Science (QIS) is another disruptive technology that will transform our world. Quantum sensing technologies can help us better detect critical mineral deposits and methane emissions. Quantum computing will revolutionize how we analyze large datasets and design pharmaceuticals

The National Quantum Coordination Office sits within OSTP and oversees the federal government's efforts to lead the world in quantum.

Colorado's Elevate Quantum Regional Tech Hub is working with industry, academia, and federal agencies to bring quantum technologies to real life commercial scale.

Question 2: Mr. Klein, what priorities would you recommend Congress consider as part of the reauthorization of the National Quantum Initiative? How could a reauthorized NQIA coordinate with existing federally-funded innovation hubs focused on quantum research, commercialization, manufacturing, or workforce development?

Answer: Thank you for your commitment to American leadership in QIS. With the NQI reauthorization, Congress can act to strengthen the commitment to US leadership, through promoting additional research and continuing to grow the quantum workforce. Given the

increasing maturity of the technology, an increased focus on engineering, enabling technologies, and commercialization is now needed to ensure the technology advances to the point that end-users will recognize the impact of the technology, the markets will develop, and the technology will become profitable. If confirmed, I look forward to working with you and your office on supporting continued American leadership in QIS.

SENATOR JOHN FETTERMAN (D-PA)

1. We agree that if any nation is to win the AI race, it must be the United States. And we agree that the build out of artificial intelligence (AI) infrastructure and the energy production to sustain data centers is critical for the United States to win this race.

But I share the concerns of many Pennsylvanians who have already seen their electricity bills rise between 23-40% over the past five years. The same is true for other residents within the PJM grid across Ohio, West Virginia, New Jersey, Maryland, Delaware, Washington, D.C., and parts of Virginia. Pennsylvania residents will eventually be sharing the grid with even more data centers set to be built across the commonwealth in the coming years.

Do you believe that more energy generation needs to be connected to our energy grid, rather than facilitating behind the meter agreements, to preserve affordability for ratepayers and ensure stable load for data center operators?

Answer: We absolutely need more energy generation to be connected to the grid and Pennsylvania will play an indispensable part in increasing that capacity. Expanding centralized energy generation across a range of sources, including advanced nuclear, remains critical to maintaining grid reliability and affordability. President Trump has been clear about the need for American energy dominance and also for companies to be able to supply their own power. If confirmed, I look forward to working with you to advance policies that preserve affordability for ratepayers and ensure stable load for all consumers, including data center operators, achieving energy dominance without compromising American leadership in AI.