

Center for Strategic and International Studies

TRANSCRIPT

Event

Ensuring U.S. Leadership in AI
Industry Perspective on Data Center Growth

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FEATURING

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Navin
Girishankar:

I'm going to transition to the next part of the program. OpenAI, I see many OpenAI colleagues in the room, needs no introduction. Neither does Chris Lehane, who I'm going to introduce next. I recently found out just this morning that he's also a fellow Williams alum. So we can forgive him for that. But he's vice president of global policy at OpenAI. Just really want to thank Chris and the team for what hopefully will be an interesting partnership with our team on doing some analysis around the energy and infrastructure requirements underpinning the AI revolution.

But let me – let me say this. Chris leads the global policy efforts at OpenAI, where he's played a central role in shaping policy and regulatory dialog surrounding AI's development and deployment. He joined recently in August 2024, but he has deep and long experience around public-private intersections and interactions. Prior to joining OpenAI, Chris was senior VP of global communications and policy at Airbnb. He's also had a distinguished career in government, including serving in the Clinton White House and as press secretary for VP Al Gore during his presidential campaign.

We're really, really excited about the work that we'll be doing. But most importantly want to hear from Chris today, who has, really, some insights to share with us on OpenAI's thinking on how we should approach the AI revolution going forward. And so with that, warmly welcome you to the stage. (Applause.)

Chris Lehane:

Thank you so much. Good morning. Thanks to all of you for appearing here on this very brisk morning; felt a little bit like winter here at the East Coast for a San Franciscan.

Really excited to be here. I want to acknowledge and thank the two members of Congress; a really great conversation. I'll touch on some of the themes and ideas that they were speaking to.

Excited to hear from former Commissioner Chatterjee, who's going to be talking shortly, and also from a great panel that will be on stage after me. And really want to recognize CSIS for pulling this together – Joseph, who helps organize this work, and Navin.

Navin got my intro a little bit off. I'm actually an Amherst grad. And if you confuse an Amherst grad with a Williams grad, that – you know, that's a major issue. But, you know, I will forgive him, you know, given his Williams background on that. But in any case, they have – they've organized – CSIS has organized an incredibly important conversation.

We at OpenAI do believe that infrastructure is destiny in particular. That

relates to the fact that we're going to have a world that's either going to be built on democratic AI or autocratic AI. You can think of that as AI that's built for freedom or AI that's built for authoritarianism.

And so what I'm going to touch on today very quickly – let me see if the clicker is working here; there we go – are three things. One, explain a little bit of who OpenAI is, what is AI, and, probably most importantly, why should you all care? Talk about what we see as a looming compute gap, and then talk about the solution, which is the fact that it is a time to build.

So very quickly, who is OpenAI? Well, you can think of OpenAI in three chapters. In 2015 the organization is launched as a research lab. We made a big bet on something called deep learning, basically building systems that would seek to replicate how the human brain works. That big bet really pays off in 2022, late November – we're coming up on the anniversary – with the launch of ChatGPT. Overnight the company becomes known around the world, becomes the fastest-growing API in history. And then, chapter three, in September, when we launched and released a product called o1. It's really sort of the next level, next stage of AI, where the system is actually able to do reasoning.

So, you know, I often get asked, well, what is AI really? And, you know, the analogy that I use or the comp that I use is picking up on something that Steve Jobs originally used when he described the computer as basically being a bike for the human brain. Well, you can think of that ChatGPT that we launched as maybe a 10-speed bike for the human brain. The product we launched in September, which does the reasoning, maybe think of that as like an electric bike for the human brain. What's coming next is maybe a motorcycle for the human brain; after that, a fleet of motorcycles for the human brain; and then, down the road, rocket-powered motorcycles for the human brain.

But why should I care? I think the way to think about this – everyone has your own historical analogy, but mine is this is on par with electricity. Electricity changed how we lived. It changed how we worked. It changed how we engaged with one another. It changed how we played. AI is similar in that regard.

Our CEO and co-founder, Sam Altman, wrote a piece a couple of weeks ago and he talked about how technology transformations have moved humans from one era to the other – stone age to ag age, ag age to the industrial age, the industrial age until what he called the age of intelligence.

This will be an age where this technology will allow us to solve

problems we never, ever thought we could have solved, problems that a few decades ago people would have thought of as miracles. It's going to create new businesses, new opportunities. The growth from the productivity is going to be tremendous. There are some reports that are projecting that by 2027 you'll start to see a 1 percent gain in GDP annually. If you think about GDP over the last 10 or 20 years typically being between 2.5 and 2.8 percent growth, it just gives you a sense of how significant this could be.

But for all of this to work, it does need to be built on democratic values and informed by democratic principles. And as the senators and Navin talked about, you know, right now there is this incredible global competition. And, you know, there should be no mistake, the stakes are really big here. China has made clear that they want to be the global leader by 2030. And, you know, I won't typically quote him, but I think Vladimir Putin sort of captured this and, again, really reiterated the stakes that are in play here when he said whoever wins AI wins the world.

You know, there was a book that many of you may remember from the late '90s. I will neither confirm nor deny whether I actually read this entire book but the book was called "Guns, Germs, and Steel" and the thesis of the book was this idea that nations that are able to harness their elements – their natural resources – are nations that are able to succeed and if we think about, you know, what the analog to that guns, germs, and steel are today that is chips. It is data. It is energy.

That all rolls up to the infrastructure stack that produces or generates compute and compute is really the raw power, the raw computational power that allows AI to be built, that allows AI to be deployed.

And, you know, as we touched on, you know, China is very focused on this and so the way to evaluate where we are in this competition is to think about things in the context of a compute gap – who is winning and who is not.

You know, today the U.S. is winning but that lead is not guaranteed. You can see what China is doing, throwing enormous resources at their chip development. We have Chris Miller, who's going to be joining us later on the panel, who's written about this. I actually did read Chris' book.

But, you know, they're also doing enormous things in terms of the amount of energy that they're bringing on board, and because they're authoritarian they have the ability to really swoop up a lot of data. And so this is really a time where we need to start to think big given what's at stake. Again, there's two nations in the world that can build this stuff

at scale and it's the U.S. and China.

We released a report a couple weeks ago to various government officials that sort of outlined how we need to begin to think about this. The report documented that by 2030 we're probably going to need pretty close to 50 gigawatts of energy. That's an enormous amount of energy.

We're going to need that to be able to support the growing business sectors that are being built in and around AI. Think of developers, the people who are building off of some of these platforms. They basically represent, like, the Main Street businesses of this next generation, of this next age.

And then as was talked about in the earlier conversation there's an enormous amount of capital out there looking to invest in AI infrastructure. Basic reports show that it's around \$175 billion in dry powder. Like, if we bring that money – that's globally. And if we bring that money into this country that's going to have an enormous catalyst for reindustrializing the country, and so it also requires us to start to act big.

In that same report we outlined what a five gigawatt AI data center cluster would generate – what it would mean from an economic development stimulus perspective. It would generate about 17,000 jobs on the construction side, another 40,000 jobs in and around supporting that data center, and about \$20 billion a year in annual revenue.

And so you think of the growth that comes out of this. We can reindustrialize the country. We can also revitalize the American dream with this growth. So that really leads to the fact that we do need to start to build big, and we've been there before. Like, this country has done this.

Public and private sector came together in the first part of the 20th century and made sure that the U.S. was the center of the automobile industry. The Tennessee Valley Authority represents one of the biggest energy projects in history to help power economic development throughout the southeast.

It was touched on earlier but the National Highway Act led by President Eisenhower created an interstate system that allowed us to move commerce at speed around the country, and I'm old enough to remember in the mid-'90s when I actually still had a little bit more hair I worked in the Clinton White House as was referenced, and Democrats and Republicans came together and worked in a bipartisan way to put in place the Telco Act of 1996, which really served as a catalyst for the

development of what was then called the World Wide Web which we think of today as the internet, and there was a national strategy that both parties came together on and that strategy was to make sure that the U.S. was really the epicenter of the digital age, and it succeeded.

And so we need to start to think big and act big in the same way that we have done in the past and so today we are releasing, and we're talking about it here, a blueprint for AI infrastructure. That blueprint is based on five key pillars and I'll touch on them fairly briefly here.

The first pillar is to create AI opportunity zones. Think of these as zones that would expedite the permitting for the development of these data center clusters. That, obviously, requires federal, state, sometimes local community approval. To help incentivize local communities, a portion of the compute that would be generated by these data centers would be allocated for public use. It could support public universities. It could support the build out of developer ecosystems, so that those communities would really benefit from the economic activity in and around the AI data center.

Pillar number two is to create an AI – a transmission superhighway, similar to the interstate highway system that President Eisenhower led on. It was discussed again earlier in the discussion, but this would address the three P's – the planning, the permitting, and the payment – that we need to get right in order to build out a transmission grid is optimized for the delivery of the type of commerce that can be generated by AI information and AI deployment.

The third bullet or third pillar is government backstops. I talked about the fact that there's \$175 billion out there looking to be invested in AI infrastructure. Government's actually stepping in and buying – or committing to buying some of the offtake, the actual compute. Government actually needs that compute to support its own systems. Using that as a way to attract capital would bring that \$175 billion here into the U.S. to help support buildouts here in this country. As part of that, we should also be looking into worker training. There's going to be a whole class of workers in and around the building of these facilities and serving of these facilities.

The fourth chapter – fourth pillar is the North American AI Compact. And this would be a way for us to work with likeminded allies to support the American vision for AI. Amongst the things that this compact could support was making our supply lines more resilient. It would serve as a counter to the autocratic bloc that China is organizing.

And then the fifth pillar that we would look at is reinvigorating our

nuclear power sector. And that would include both traditional fission but also thinking about some of the innovations that we're seeing in fusion. You know, today, at least based on public reports, there is somewhere around 100 Navy submarines out there in the world powered by nuclear generators. Navy has been doing this for 75 years. They know how to do it. If we can put these things on subs, it seems like we should be able to figure out a way to put them in different places in the U.S. to help provide us that energy. And so the fifth pillar would be really trying to tap into the expertise of the U.S. Navy to help support this activity here on the ground in the U.S.

What all of this adds up to is that there is a real imperative to build. If we build – and we've – again, this is something that the U.S. has done in the past. We've built electricity. We've built the arsenal of democracy. We've built the internet. That's all taken place here in this country. If we start to build AI infrastructure, we can reindustrialize the country. If we build AI infrastructure, we can reinvigorate the American dream with the growth that we'll get. And if we build AI infrastructure, we'll ensure that democratic AI prevails over autocratic AI. That the U.S. version prevails over the People's Republic of China version.

And so the stakes could not be bigger. This is a time for us to build this infrastructure. We need to think big. We need to act big. And we need to build big. Thank you so much for having me. (Applause.)

Joseph Majkut: Colleagues, thank you for coming. Joseph Majkut, director of the Energy Program, stepping in for Navin who had to go upstairs for our annual board meeting. I think we have time for Chris to take a couple questions. Chris, thank you for such an inspiring, and also I would say, provocative presentation, in terms of what you're thinking and what the policy framework we should have should be. So we welcome a couple of questions here from the audience. I'll run the mic to you. We'll start here. And please remember to identify yourself. Questions begin with a brief propositional statement and then sentence that goes up at the end. (Laughter.)

Q: Mark Clerder. Is the movement for green energy going to slow down the progress on making enough energy for AI?

Mr. Lehane: So I think our perspective on this is, just given the amount of energy that you're going to need, that, you know, you're clearly going to need to be looking at sources that would include wind and solar. And if you look at the data center activity that is already taking place in places like Texas, in places like Kansas, you know, you're seeing this interesting combination oftentimes of some sequestered natural gas, but then also bringing on wind and solar. And so I do think that what you will likely

see is some combination of those coming into play. I do think, part and parcel of this whole idea that we can reindustrialize the country, is this can also be a real catalyst for modernizing the sources of energy that we tap into. It's amongst the reasons we cited the nuclear opportunities that exist. But I think it's also going to require us, as is the case right now with folks looking at solar and wind.

Q: Good morning. I'm Robin Walker. I work for the U.S. Air Force.

I wonder if you could talk about the human element of AI a little bit more. So you talk a lot about the need for more compute power, but if we talk about the need for more human capital, and bringing some of that in from the rest of the world, and some of the immigration reform issues. And then also, specifically for the Air Force, some of the cultural changes this will bring. So in the Air Force we're a culture dominated by pilots, and specifically fighter pilots, because the best and the brightest want to go be fighter pilots. In the future, if airplanes are powered by AI you will need fewer pilots. And the best and the brightest will go to other places than being fighter pilots. And that's going to greatly change the culture of the Air Force, and presumably, many, many other organizations around the world. So any thoughts on either of those human elements?

Mr. Lehane: Yeah. Those are two really big questions. First of all, thank you for your service. Incredibly appreciative of that. So let me try to bifurcate that. I think the first one was a little bit on – if I'm hearing you correctly – on sort of capacity to attract certain types of workers into the country. And we certainly think that one of the things that we do need to be thinking about in the context of all of this is, you know, how are we thinking about attracting some of the best talent in the world so that they are coming here?

You know, there's a program that I'm sure many of you are familiar with called the H-B1 visa. It's designed to do that. I think there's been super – some really interesting ideas. Had some meetings up on the Hill yesterday that touched on this. You know, where folks are thinking, can we – can we sort of evolve how we're thinking about some of these programs so that we're potentially attracting and bringing some of these folks into areas of the country that typically have not benefited from the technology revolution, the economics of that, right?

And so you can imagine a world, you know, where you're doing these AI data centers. You have some version of an H-B1 program. These are happening in places that haven't necessarily participated in the tech revolution of the last 20 years. But you're using the AI data centers to attract an enormous amount of really high-caliber talent, that then

begins to build off of these in those communities. And suddenly you have a flourishing ecosystem.

So I do think, you know, if there's – you know, I'll use a football analogy. If you're the University of Alabama, you're looking for all the first-round picks that you can get. You know, are there first-round picks that we can bring to these different parts of the world – to our country, and use it to help support economic development in those places? So I do think a sophisticated, targeted, smart strategy there would really benefit us and compliment everything that we just talked about.

You know, on the second issue, which I think is really getting a little bit at – and I don't want to put words in your mouth – but I presume that was a little bit about AI's impact on what's called sort of, quote/unquote, "workplace dislocation," right, or some version of that. I think you were talking also just even the cultural aspects of that. You know, this is also something that that Sam, our CEO, talked about in that piece on the intelligence age. You know, and the importance, in particular, of the fact that you are going to get this enormous prosperity that is going to come out of the productivity gains that you're going to get.

But, like, a huge question for all of us in society is how do we make sure that those prosperity gains are going to be shared and that everyone gets to participate in them? I think the nature of this technology would strongly argue that you almost need to think about almost a pre-distribution model. How do you actually start to build this in at the front end so that people are able to participate and are able to benefit from it? And I do think that – I mean, both members of Congress, you know, touched on how quickly and how fast this is all moving. I do think, given the speed of this technology, it's really, really, really important that you have the public sector and the private sector working very closely on this to address the types of issues that you just touched on.

We just are doing, I think, a little project, in fact, with the USAF. And you know, part of the work in and around that, you know, is to sort of understand, you know, how we can develop and deploy this stuff in ways that will be very consistent, you know, with the culture of the Air Force – and, frankly, you know, with our culture, and how we can make sure that we're both learning from that – from that experience.

Q: Hi. I'm Daniella Cheslow with Politico.

I wondered – this is an ambitious blueprint and it's going to require a lot of government input. Who are you talking to in the Trump administration about this? Has Elon Musk weighed in? Are there

lawmakers or committees that you think might help you get this on the agenda?

Mr. Lehane: Yeah. So, you know, I think one of the really interesting things about infrastructure – AI infrastructure, and in particular AI infrastructure in the context of, you know, whether you have democratic or autocratic AI, is the fact that it is an issue that transcends traditional political partisan lines. I think both presidential candidates over the election had talked about the need for the U.S. to win on AI. President-elect Trump, at least folks around him have talked about this idea of doing – supporting large infrastructure projects. I have spent time on the Hill. I know my colleagues who are here – I should have given them a shout-out for all the work they've done on this and a bunch of other stuff – have spent, you know, a lot of time with folks from both sides, including folks, you know, in the – in the Trump – President-elect Trump's circle, having conversations about the need for infrastructure.

So, lookit, I'm an optimist, and I do believe that given the moment that we are in the broad recognition that winning on infrastructure is absolutely critical, imperative, the predicate for democratic AI to prevail and to win, that it's going to serve as an incredible galvanizing force. And I do think that this is going to be one of the subject areas in the next Congress and with the next administration that folks are going to want to work on because the stakes are just so big.

And you know, as I've walked through – if you think about this, right, you get to reindustrialize the country if you do this right. You get to reinvigorate the American Dream if you get this right. And you get to make sure that the world gets built out, in, and around democratic AI. And so, as I said earlier, the stakes are really big, but this country has risen to the occasion numerous times in the past and I believe we're at a moment where it's going to do that again.

Mr. Majkut: Unfortunately, we can't take any more questions. We have to keep on schedule. But, Chris, thank you so much for your presentation. If you wouldn't mind giving him a warm thanks. (Applause.)

(END.)