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TRANSCRIPT
Online Event

"Assuring U.S. Global Competitiveness in Science, Technology and Commerce: An Armchair Discussion with Representative Haley Stevens"

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FEATURING
Representative Haley Stevens (D-MI)
Chairwoman, House Sciences, Space & Technology Research & Technology Subcommittee

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Sujai Shivakumar: Welcome to CSIS. I'm Sujai Shivakumar, a senior fellow at CSIS and director for the Renewing American Innovation Project.

CSIS launched this project earlier this year, recognizing that innovation and national security are, indeed, coupled, and that the world has changed significantly in the past decades. What we need now is to renew our focus and commitment to sustaining this very American virtue in this changed world. And the virtue I speak of is, of course, innovation.

Today we're pleased to welcome the honorable Haley Stevens, congresswoman from the 11th District in Michigan, for a conversation on the future of American innovation, competitiveness, and society. She is a member of the House Committee on Education and Labor and she is the chair of the Subcommittee on Research and Technology of the House Committee Science, Space, and Technology. In short, Haley Stevens knows the issues, and she is working on legislation to strengthen U.S. innovation and competitiveness.

Today's conversation will be facilitated by Walter Copan, the former director of the National Institute of Standards and Technology. Currently he is vice president for research and technology at the Colorado School of Mines, and we are very fortunate to have him here at CSIS as a senior advisor to the Renewing American Innovation Project. It promises to be a very rich conversation.

So let me first invite the congresswoman to share any introductory remarks she has and then it's back to Dr. Copan. Thank you very much.

Representative Haley Stevens (D-MI): Well, we certainly have a very robust dialogue here today, and I'm so, so honored to be with all of you and to be with my friend and collaborator Dr. Walt Copan.

Look, I represent a part of the country that is known for its rich innovation in automotive technology and defense production and aerospace, and that's right here in southeastern Michigan. And the question that I implore of my colleagues in the Congress is, you know, we in 2019 celebrated and recognized 50 years of the Moon landing, and the question that we got to ask ourselves is: What's our Moon shot of the next 50 years? Where and how are we proliferating and propagating new innovations? We talk about this in terms of winning the future.

We, obviously, have a very unique and strategic approach as the United States of America. And yet, we've also got foreign competition. So just like way back when, you know, we've got to benchmark ourselves against our friendly competitors – sometimes not so friendly – in this space and think about how we can harness the best of American talent through all

geographies and demographics and harness the best innovations along with not only private-sector enterprises at the table, but also our government and nonprofit and academic institutions that are so rich to this ecosystem and the forging of new ideas, new solutions, and new applications.

So really looking forward to being with you today. Thank you for the great introduction, Sujai. And Dr. Copan, excited for today's dialogue.

Walter G. Copan: Thanks so much, Chairwoman Stevens. It's great to have you on this armchair conversation today. And the topics we'll be covering are so close to what have been your focus on research and technology, the future of U.S. innovation and competitiveness, advanced manufacturing, the future of the workforce.

So as we get started, could you just give us some history? Can you tell us a little bit more just about how you came to decide to run for Congress, to represent the 11th District of Michigan? And also, why did you seek to serve as chair of the House Subcommittee on Research and Technology and to be part of science, space, and technology?

Rep. Stevens: Yeah. Well, I won't usurp our entire dialogue with the long story, but in short, my motivations came from working in a R&D research lab focused on the future of work in manufacturing particularly, with IOT applications and rapid digitization that has – that was really coming to the table. And I saw a missing voice in the Congress for the manufacturing sciences, the innovation capabilities, the supply chain securitization need.

Obviously, chips and semiconductor challenges are, you know, all the dialogue today. Well, I've been an enthusiast and a policy, you know, maker, I guess you could say, for – in that space for a really long time and saw in my neck of the woods, here in the suburbs of Detroit – what we call metro Detroit, where we've got the largest concentration of automotive supplier jobs running through my district – and certainly in the supply chain you see so much innovation capabilities.

And I thought, one, this is a way to bring our country together. When you talk about manufacturing, when you talk about innovation, when you talk about STEM education, not very controversial topics, and certainly also a way to bring Midwestern lawmakers together.

And so I put up my hand to run for Congress based on that commitment and that experience, and also having served in the Obama administration in the U.S. Department of the Treasury as the chief of staff on U.S. auto rescue during the Great Recession when, you know, we saw a whole host of volatility and in particular with General Motors and then Chrysler looking at liquidation, true liquidation and true bankruptcy in the face. And so was a

part of just a superstar team of people who put together the largest managed industrial bankruptcy in the history of this country, saving the two companies, bringing them back to viability, as well as 200,000 Michigan jobs. So that was also, you know, a point of conversation when I was campaigning.

And then winning the seat, you know, look, we had, I think, a really large freshman class come in, about 83 new members from both sides of the aisle, a lot of change in the air, a lot of people jockeying for different committee assignments. And my priority was to get on the Science Committee, and in part it was sitting in that research lab and working on NIST-funded projects and seeing the – you know, the banner come across, the headline banner come across that, you know, based on some budgetary cuts that were being proposed that we were going to have a lost generation of scientific research funding. And I – and I just didn't see it as, you know, acceptable. And as someone who was working really closely with NIST and, you know, applying for NSF dollars and the like, I just thought, geez, you know, this has just been a motivation of mine.

Well, this committee oversees these agencies. So made it my number-one choice. You know, didn't take anything for granted. Kind of had assurance I was going to get on the committee. Got on the committee. And lo and behold, the way it kind of worked out with the waiver system and this and that, I was, you know, in line in seniority to become a subcommittee chair, which was, you know, a complete pinch-me moment, I mean, a real dream come true to oversee the – you know, in an authorizing capacity – the NSF, and the NIST, and the Economic Development Administration's innovation programs, where I'd worked for a while previous to coming to Congress. And so I took the opportunity to do it, because that was my very motivation to actually run for Congress, Dr. Copan.

Dr. Copan: Well, we're thrilled that you have. And thank you for your service. Thank you for the enthusiastic leadership that you provide and, I believe, also serving as a role model for bipartisanship in trying to accomplish the objectives together for the nation. And the Senate and the House are now taking an important series of actions to strengthen U.S. innovation competitiveness. You referred to another moonshot, and certainly in the era immediately after World War II the United States had invested significantly in research and technology, approaching 2 percent of U.S. GDP, of federal investment in research and technology. Now, of course, the U.S. is reassessing its competitive position globally. And what are your perspectives on what the U.S. needs to do regarding federal investment in research and technology?

Rep. Stevens: Yeah. Certainly, we find ourselves at a new moment. You can read some remarks that talk about, you know, the place that we are with R&D spend as a nation. And certainly there's exciting things going on in a multitude of

agencies, I would say. You mentioned NSF and NIST, but there's DARPA, you know, the Department of Energy Research applications, even things that are taking place out of the ManTech office at the Department of Defense. The funding entities that actually were co-investors in the research lab I was working on through the Manufacturing USA Program.

And yet, and yet, we are compelled to ramp up our spend. We're looking at places where we're being edged out. Battery technologies is obviously something really critical to the region I call home, with electric vehicles in particular starting to proliferate in the consumer base. And when we think about supply chain securitization – and I've got one of two electrolyte manufacturers in the United States located in my district – how are we not being more competitive in that regard? Quantum, biotechnology, you know, data storage capabilities, artificial intelligence. Lots has been written about, you know, where's the U.S. leadership in terms of artificial intelligence?

And at the same time, Dr. Copan, we're figuring out how to regulate our social media empires, and kind of make sure that we have a more fair, and just, and equitable society, and not one driven by falsehood and unregulated conspiracy theories. And so our piece of this, right, you know, if we're going to tackle privacy. And, you know, I certainly have got a nice bill on privacy-enhancing technologies and, you know, where we want to go from there. But it's got to be hardnosed around an actual staid and established investment structure through the United States government that, by the way, has a terrific return on its – on its spend.

So you can look the doubling of the scientific research budget that we've put forward through the NSF. I, you know, led the effort for the NSF for the Future Act. So that's kind of one slice of a broader package that has been passed through the Senate, the U.S. Innovation and Competition Act, which, you know, is a sizable investment through a multitude of agencies, the most prominent being the National Science Foundation, to plus-up our scientific research budgets and look at commercial applications out of scientific research.

Obviously, also protecting basic research, which is so, so important to the National Science Foundation. Looking at how we're utilizing the National Institute of Standards and Technology for small and medium-size enterprises in particular. You know, the standards and also the placemaking for the smaller companies that are being impacted by a multitude of needs and wants coming out of NIST. I will say that's the agency that does a whole heck of a lot with not a whole heck of a lot of investment. And so, you know, we can kind of measure that out in terms of what we're, you know, investing in to various agencies.

And obviously chips and the chip shortage, we kind of find ourselves at a moment of crisis, you know? In the 1990s we were making nearly 40 percent of the world's semiconductor chips. Now we've got, you know, 12 percent of that market share. Yet, we innovated this project. Yet, we invented it. And yet, we employed people in this industry, except for there's just been a piece that's made this more attractive to making these products overseas, particularly in the east. And it's not just labor, right? It's investment and incentive packages that are kind of tied into this innovation work.

And so we don't want to be thinking nearly either. We want to be thinking long-term and broadly. But I think really putting, you know, our money where, you know, our minds are – and that's investing in every mind in the United States and making sure we've got equitable STEM education. You know, we've heard this over and over again from the scientific research community. You know, continue to invest in all people, you know, be it demographics or different geographies.

So, you know, we're – I'm excited about the U.S. Innovation and Competition Act. I think we'll, you know, kind of bring some of the House components in with the Senate components. But the goal is to get this, you know, passed and signed into law. We had very bipartisan support in the Senate, and I expect similar in the House.

Dr. Copan: That's a tremendous overview. And it's very clear that there are common goals for not only more effective investment in science and technology but in its effective translation too to create jobs, to create economic impact. And so, with the legislation, the USICA from the Senate side, and that's brought together the Endless Frontier Act, where Senator Schumer and Senator Young were cosponsors, amongst others. And then also the bills that you've been involved in from the House side. What are the key issues that you believe need to be addressed between the House and the Senate to ultimately to come resolution on the future of the USICA and the related bills in the House to implement what the nation needs?

Rep. Stevens: So in the Senate package, we have just a very broad and kind of expansive suite of legislative priorities that got passed and put in there. And, you know, it's sort of been, you know, kicked over to the House, kicked over to this conference process to prioritize. And, you know, I really see a few things manifesting in this regard. One, chips – the chips funding. We got the $52 billion in there for the design components, the R&D components, and obviously the manufacturing piece of this as well. And it was really done right, because not all chips are the same, the complex, you know, ones – you know, the ones that go into the car – into the automobiles, the different types of fabs that need to get created.

And I really see that as a linchpin of this legislative portfolio. Look, I don't want to skip over – it's certainly appropriate to talk about kind of the other competitiveness component of the legislation, which is, you know, what's going to happen with NASA. And I think on the House side, you know, we have really embarked on an approach with the NASA reauthorization and the funding of NASA in a very studious and diligent way.

And I share this because, look, we don't want to see these technological capabilities. We've got, you know, private sector entities that are investing at scale creating jobs. I got a lot of suppliers here, you know, who have been in automotive and over the years have diversified into aerospace. You know, seen their products go into those rockets that go to the moon – or, that will go to the moon, or into outer space – are just really exciting. And, you know, we don't want to have just a monolith approach.

Now, I share this also because I think that it is a – it is going to be a question on the docket if we pursue NASA through the conference process or if we remove it. And that might lower the price tag. I think on the NSF portions of the bills that are in the House and in the Senate – and obviously, the Senate package being the one that has passed – you know, we'll negotiate that out. Some questions around the directorate and the funding schemes. You know, I've been an NSF applicant before, and know our scientific research community feels pretty strongly about, you know, how they pursue these dollars and not creating additional roadblocks.

But with the emphasis of expanding the technology directorate to, you know, continue to include some of these other applications and these commercial opportunities. And more so, you know, looking at areas where we've been weaker. And, you know, I've got to give – you know, you mentioned Senator Young, and obviously there's Senator Schumer who's just really taken a leadership role here and said, hey, you know, base level we're behind, right? You know, we've got all this hunger and thirst out there for quantum. We've got all these, you know, technological applications that we can provide through our supply chains. Let's not forget cybersecurity here as well, and how important that is.

And so, you know, I think that you'll see this – that being, you know, at the negotiating table and sort of being a cornerstone, as well as, you know, what ultimately might get invested in with regional innovation hubs or technology hubs, as we're calling it. And that's a great matchmaking opportunity with what we're doing with NSF. You know, having regions kind of self-declare where their strengths are, harness those assets that exist from the community college level to the small business supply chain, and on. And also, maybe entrepreneurship capabilities as well. And we just need to do that, because we don't want to be, you know, picking winners and losers or seeing regions, you know, continue to struggle with deindustrialization or

small business squeeze. And so it's a really right moment to do the technology hub piece as well, that will further enable our ability to compete.

Dr. Copan: Thanks so much for those insights. And we've been talking also about the unprecedented competition from China and other nations. And we're in a time of the linkage between economic competitiveness and national security.

What do you think are the highest-priority issues that the U.S. needs to address at this time with nations who are also key parts of the supply chain for the U.S., and recognizing that a lot of the inventions that originally came from the United States are now being manufactured in China and sold globally?

Rep. Stevens: Yeah. I have a couple of, you know, higher-level thoughts on this before I get granular, Walt. One is, if you look at the plight of this nation, to the point that we're at now in the 21st century, so the last 20-plus years, it has been a story of unbelievable and unprecedented innovation and ushering in of new technologies from where we were with the gig economy at the start of the century to where we are now, with the massive arrival of IOT.

Obviously you can look at the phone in your pocket; you know, an entire gig economy that frankly we propagated, you know, we stood up as a nation. And the tools and the technologies absolutely came from the United States of America. And yet, we kind of drove on lower costs, obviously looking at global supply chains and the interconnectedness of, you know, how products get made.

I'll tell you, as someone who has a program called Manufacturing Monday, right, I, you know, go and see, you know, a small business, the innovators, the makers of my district, on a regular basis. I've done, you know, over, you know, well over a hundred of these visits. And, you know, by and large, I'm never not in the company and not seeing where they're making and selling internationally.

You know, you've just got to – you know, it's easy to say buy America – buy American, make it in America. Obviously, those are really exciting and important components. But you can't just say that and will it. You know, you've got to look at the complexity of global supply chains.

And, you know, I think it's also important too, as we – I love how you framed your question – you know, as we benchmark, you know, this race that we're in, this competition that we're in. And, you know, we can't rest on, you know, totally our laurels of the past. You know, we need to continue to, you know, spur the technology, you know, innovations that are taking place. We need to continue to harness the capabilities of our supply chain.

And so, look, looking and identifying some of the weaknesses, as you've asked, in some of the priority areas, you know, cybersecurity continues to be just absolutely paramount, which is why I'm really excited about continued investment in NIST in particular; you know, kind of the unassuming agency that's just really been leading the way.

I was there when NIST and DOD signed an MOU on cybersecurity for the manufacturing supply chain. And we need to continue to kind of break down some of those barriers that exist between our supply chain and our original equipment, manufacturers as well as more so our procurement agencies, particularly within the DOD. That's national security.

I think we've got to aggressively be mapping out the existing assets in this nation. When I say assets, it's – you know, we love our community colleges and our universities and certainly some of these, you know, nonprofit collaborative-platform organizations that come together. But we need to look at the small companies.

I mean, you think about the knowledge pool that we have in our congressional office that I'm sitting in right now through that Manufacturing Monday program. Well, how are you going to identify some of these missing middles and then come up with the strategy to either diversify, you know, which is what you'll get with this regional tech-hub approach in the U.S. Innovation and Competition Act, and with also the doubling of NSF? So identifying those missing middles in our supply chain and figuring out how to address it, you know, that's going to be the really hard and kind of ruthless work.

So, you know, lastly I'll just say, you know, we've obviously got to get serious about materials; exciting things happening in the composite space. I mean, I'm, like, ready to go take another class on this. (Laughs.) You know, it's like – it's just unbelievable what a lot of these makers are doing with composites right now. And yet we're really stretched in terms of the cost of materials right now and some of just our basic steel, aluminum. You know, we're hearing the auto industry talk about magnesium.

This is obviously all related to the – you know, ties in with the chips consideration. But I don't want to be naïve to material costs and, you know, what we're even experiencing with plastics and recyclability and reman and on and on and on; so, you know, infinite potential and opportunity, and just really applauding all of the hard-working men and women in this country who are in this space, because they have been rising to that industrial call to action, solving PPE supply-chain challenges that hit us when this pandemic first came to our shores. And yet, at the same time, we still have – you know, we're doing amazing things with electric-vehicle technology, new-product

design, on and on and on. It's like we haven't – it hasn't gotten totally in the way of our innovation capabilities either.

Dr. Copan: Well, thanks. And you've really been a champion for U.S. advanced manufacturing. You've mentioned some of the programs. Manufacturing Extension Partnership focused on small to medium enterprises, and Manufacturing USA, other public-private partnerships. And we really are in a situation now where the United States has benefited from global supply, but we've also seen the weaknesses that have been created regarding our balance of trade and our security.

In addition – and you serve on the House Committee on Education and Labor and as co-chair of that task force on the future of work – so can you share with us some of the priorities that you believe need to be accomplished in Congress and for the nation, looking to the future of U.S. manufacturing base, supply chain, and in particular looking at the future of America's workforce to step up to the innovation economy and these opportunities of the future?

Rep. Stevens: Yeah. Well, we're absolutely at a break-glass moment, aren't we, Walt, in that respect, in terms of what it means to be recruiting and training the talent, and also understanding the nimbleness and the flexibility of the future of work.

You know, here a pandemic hit and that changed a whole heck of a lot. And, you know, we're still kind of figuring that out in terms of, you know, how it works for some people to be remote and connecting in on different sorts of platforms to those who, you know, we really are going to rely on being on the job and working with our hands and being in a collaborative space. And, you know, time and time again I see these manufacturers who, you know, shut down briefly or didn't shut down at all and made themselves essential and, you know, weathered the storm and kept going and kept things running for us.

And, you know, at the same time, too, we can't be naïve to what we're experiencing and addressing with our workforce shortages. And, you know, it's really a sticking point for me, particularly as a member of the Education and Labor Committee. We, you know, are investing in apprenticeships. We're investing in public-private partnerships, supporting our incredible unionized workforce as well that, you know, has some of those just, you know, cutting-edge apprenticeship programs. And you get those skills and you can use them forever. And yet we've got a very competitive and tight labor market and it's squeezing us.

And so why I say we're at a break-glass moment is, one, we need to use all the tools at our disposal, certainly in our NSF approach with investing in the STEM education and different grant opportunities for individuals. It's just

going to be key for us, but also, you know, thinking about barriers that have existed for too long. You know, we haven't modernized to allow people who, you know, want to pursue the American dream and come here and, you know, get educated here, enable them to stay here successfully. It's not that everyone has to leave. It's just really cumbersome. And I think we're losing out on a lot of talent.

You know, we've got to start at a young age. We've got to have that continuity in our schools. There are certainly just great career job opportunities for every American. And, you know, these are, a lot of times, you know, the engineering, the sciences, the technology fields; you know, untapped talent, you know, basic research needing design and production capabilities to eventual shipment.

It's just so, so critical to have, you know, an honored and an exercised supply chain. And I think we need to be coordinating from the top down. It's sort of the we-want-you moment, right, just like you recruit for the Army. We want you. We want you in manufacturing and in the sciences. And, you know, that's just going to have to be, you know, the cause du jour. Then you go back to the first question you asked me, well, you know, what led me to run for Congress. Well, heck, this was a big part of it, right, which is the workforce development piece and making sure that we're training and educating and plugging people into the jobs of today.

Dr. Copan: Thanks. Thanks for all that you're doing in these committees and the focus also on making sure that America is the place that can always attract the brightest and best talent from around the world as well as growing U.S. capacity in all these industries for the future.

Switching gears now, and this is more thinking about what's been happening at DARPA, we know that also the Department of Energy has had a very successful program, ARPA-E. NIST, over the past years, had a very successful program called ATP, the Advanced Technology Program.

I know that you've been deeply involved in the reauthorization of NIST and the new legislation there. Can you see that this could be a right time for NIST to be, again, the sponsor of a new advanced research projects agency focused on U.S. competitiveness, an ARPA for commerce?

Rep. Stevens: Yeah. Those are such great examples of linkages in particular because of the success that we have seen, you know, out of DARPA, out of ARPA-E. I know at one point we were wondering in this innovation – or, this infrastructure package if we were going to have I-ARPA, right? And this comes down to, you know, hey, we've got to do maintenance and repair but we also have to, you know, ensure that we're, you know, innovating in our infrastructure system.

But I think NIST – you're seeing NIST play such a critical role and you're going to have that flexibility, you know, in the dollars and the – you know, obviously, the way in which we're prescribing some of the programs. But we'll have some of the flexibility to come forward. I was just blown away getting briefed by the – you know, the readiness of the agency for the CHIPS Act and what a role they're going to play there.

Well, let's not leave it so narrow just to CHIPS. I mean, that if we can exercise and utilize NIST for some of these other advanced manufacturing initiatives or competitiveness strategies, again, it's a secret weapon of the federal government – you know, the Bayh-Dole Act, you know, which kind of speaks to that, Stevenson-Wydler, which we need to reauthorize, you know, on and on. We've got just a lot of great potential here.

Dr. Copan: Yeah. Thanks so much, and also for raising Bayh-Dole and Stevenson-Wydler. As we look at greater federal investment, building out our innovation hubs, focusing on the future of workforce, removing barriers to return on investment in the nation, it's, certainly, been a big part of what you've been advocating for in your role and, certainly, while I served as NIST director we had a series of initiatives underway. So thank you for mentioning that.

Rep. Stevens: Well, I'm intentionally pulling on your heartstrings, you know. (Laughter.)

Dr. Copan: Well, thank you. Well done.

Rep. Stevens: Alex said at the beginning, Walter will probably talk for as long as, you know, our hearts desired. So that was a part of it.

Dr. Copan: No, I – yeah, and thanks for keeping that on the radar of the Congress as well as we look to the future.

As we're coming toward the end of our time, Congresswoman Stevens, you've been recognized, in many ways, as a role model for women in America seeking to make a difference. What thoughts would you share with other women who are looking to make an impact through their own lives and their careers for the future of the nation and our planet?

Rep. Stevens: Well, we're, certainly, really enthusiastic about attracting and recruiting more women in the STEM fields, more women in leadership positions, you know, putting on the congressional lens. You know, there's been 12,000 people in the history of the United States government who have served in either the House of Representatives or in the Senate – Congress as a whole – and yet, we've continued to have under 500 women. We haven't even hit the 500 number yet in terms of that 12,000.

So when you think about, you know, should I put up my hand – and, look, I didn't run for Congress because I'm a woman but I happen to be the first woman to ever represent my seat, and it was interesting, at the end of the election cycle, you know, Senator Debbie Stabenow reflected on this and she said, you know, we had a lot of great victories and, you know, a lot of women getting elected into seats but it was – you know, it wasn't just because they were running as women. It's because, you know, every issue they talked about is a woman's issue, right, and so, you know, and bringing that talent to the table.

And so, you know, thinking about investment structures, you know, I've got a bill called the IDEA Act to invest in – it's a, you know, accelerative program through the Department of Commerce to support entrepreneurship and business creation, and really looking at, you know, the minority population and, you know, kind of those who don't often get access to venture capital and how we allocate those resources. And, you know, we sometimes will ask, well, can you have it all, and, you know, you can have what you ask for, right. You can have what you – you know, you step up to the plate to put onto your plate and, certainly, making those decisions, you know, accordingly.

So, you know, I remain really enthusiastic that my first bill of the Congress was a bill called the Building Blocks of STEM Act to require the National Science Foundation to start making grants to promote the emergence of women in the STEM fields, you know, starting from a young age, starting at the – you know, some of the earliest levels in education but also continuing on.

And so we need to have the conversation, absolutely. But what we also need to do is continue to open doors for each other and for people, and I'm really excited about what we see taking place throughout the United States and, certainly, am so honored to be one of the ones in the Congress working alongside so many incredible stakeholders to achieve these goals.

Dr. Copan: Thank you so much, Chairwoman Stevens.

As we are coming toward the end of our conversation time today, we've covered a lot of ground. We've certainly been looking at the dimensions of U.S. innovation, a resurgence of investment in response to what we can consider a new kind of Sputnik moment for the United States, a wakeup call for the nation regarding our position globally. There are certainly key issues being debated now around the future of standards, the role of standard-essential patents, and the ability of innovators across the world but in particular small- and medium-size U.S. innovative companies to participate in the standards process globally. And we've also talked about the power of

immigration and the United States as a magnet to the talent of the world to retain and to grow the best talent in this nation to ensure that women in this nation know that they are welcome as innovators, as contributors, as leaders, and as you've done in your career thus far, and looking forward to great things also for the future.

So as we bring our conversation to the close, what final remarks would you like to share with our audience today about the future of our nation?

Rep. Stevens: Well, I'll say that you gave such a beautiful summary. That's one of the reasons I'm so proud to call you a friend and a collaborator and to spend this time with you today, you know, with this incredible organization that you're helping to run. It's just been an absolutely enormous opportunity.

But I think my conclusion here is, you know, we certainly, you know, can take a, you know, broad look at where we're going to go as a country in terms of what we're going to create, what we're going to make, how we're going to solve some of the challenges before us. Let us not, you know, kind of forget what we're also facing with climate change and some of the needs to, you know, embrace alternative energy and stem the tide of climate change. But we have the responsibility and the reason and the charge to be optimistic, to be excited, to be fired up. You know, the president, you know, as he came into office elevated his science and technology policy advisor to Cabinet-level. There is a priority and an emphasis on these fields of scale, these fields of scientific research, and I am – I continue to be really optimistic as we're just about to hit that quarter-21st century mark and can kind of look to the mid-21st century and what the world is going to look like and feel and do. Just these last 10 years alone – again, unprecedented kind of, you know, obstacles thrown at us on occasion but also unprecedented making and doing and collaborating and discovering, and that's all going to continue to happen.

So we'll keep this dialogue going and I look forward to some of the continued research and recommendations and analysis that you all provide, and to everyone, you know, the door of my office on the Science Committee and as a member of Congress remains open. We want to be a place for ideas and a generation of ideas, and that only comes because we choose to have conversations like this.

So thank you so much, again, Dr. Copan.

Dr. Copan: Well, thank you so much, Congressman Haley Stevens. Thank you for engaging with this conversation, with the Center for Strategic and International Studies. And on behalf of the entire community, really, of science, technology, innovation, and technology transfer in the U.S., we thank

you for the great role that you're playing in leading the charge for so much of the future of U.S. science technology and innovation.

Thanks so much, Congresswoman Stevens.