Deterrence by Design: Advancing AI for Competitive Advantage Over China

Moderator:

- Mr. Gordon Lubold, NBC News

Panelists:

- Mr. Stephen Ehikian, CEO, C3 AI
- Mr. Joe Lonsdale, Co-Founder and Managing Partner, 8VC
- The Honorable Emil Michael, U.S. Under Secretary of War for Research and Engineering
- Admiral Samuel Paparo, Commander, U.S. Indo-Pacific Command
- Mr. Horacio Rozanski, Chairman and CEO, Booz Allen

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Announcer:
Ladies and gentlemen, welcome to panel 2: “Deterrence by Design: Advancing AI for Competitive Advantage Over China.” Please welcome to the stage Mr. Gordon Lubold of NBC and our distinguished panelists.

Gordon Lubold:
Hello everybody. Great group. Thanks everybody for coming here. We've got a great discussion. I'm going to forget, so I'm going to say it right now. We encourage audience questions, we hope to get to them. It's a big panel. There's no shrinking violets on stage, so there'll be plenty to talk about. But if you would like to submit a question, I'm going to try to get to it a little bit later, so please, please feel free to do that.

So we've got a great panel. We are here to talk about China and AI to start to think about how AI can be, or is, the defining feature of competition with China and deterrence vis-a-vis China. And so I think that we wanted—what I'm hoping to do is to give you guys and whoever else is watching some takeaways on all of this. I think for a

lot of people, AI is kind of this distant subject that people think that they should learn about someday and don't ever do it. So I'm hoping that today we can kind of do a little bit of learning.

We have a great panel here and I'm going to try to do this. Right next to me is Steven Ehikian of C3 AI. We have Joe Lonsdale, who's the co-founder and managing partner of 8VC. Then Emil Michael from the Pentagon, the Undersecretary for Research and Engineering. Certainly Admiral Paparo from INDOPACOM [U.S. Indo-Pacific Command]. And then we have Horacio Rozanski from Booz Allen.

And I think what I would like to do is start out with one quick question for Admiral Paparo. I kind of gave him a heads up, which is not about AI, but instead of—I'm not going to do a bait and switch, we are going to talk about AI—but I am going to ask him first off about the National Security Strategy because—God, you're so far away, there's a long group here.

The NSS came out the other day. I think a lot of people thought that INDOPACOM figures prominently in thinking about our National Security Strategy and potentially ultimately our national defense strategy. But I was just wondering, Admiral Paparo, if you could speak to what you make of the document as it came out. And you can weave in some AI as my segue for today.

Samuel Paparo:
Thanks Gordon. Good morning to everybody. Great to be back here at Reagan and thanks to everybody for being here. And obviously I was very watchful to see what would be in the National Security Strategy as well and equally anticipating the National Defense Strategy. And of course homeland defense as a bit of opening matter remains the number one priority for the United States military. And the strategy makes that quite clear. And then the strategy makes clear that the priority theater is the Indo-Pacific Command because of the presence within that area of responsibility—not Indo-Pacific command, but the Indo-Pacific—making quite clear that that's where the priority threats are to the security, freedom, and prosperity of the United States of America.

And so I thought that the strategy was quite clear on that and it was quite clear also in stipulating a strategy of denial. A denial defense that focused first on the first island chain and then emanated to the homeland making note of the requirement to be proactive versus reactive. And so I found all that very welcome.

In the context of artificial intelligence and really what is the changing character of warfare, we hear people talk about the changing character of warfare. The nature of warfare never changes, which is the continuation of policy by other means. But from the standpoint of the changing character of warfare, there are three meta trends and one mega trend that are actively affecting the character of warfare. And I think the first is in the information realm and that's information and cyber. And this is the power of information operations, cognitive operations, cyber operations to be a tool for affecting political outcomes. And that's meta trend number one. And so it's a time of tremendous change. As the printing press led to the Reformation, led to the Thirty Years' War, led to the reordering of the international system, we're living in such an epoch in information and cyber.

I think meta trend number two is that the commoditization of drone warfare has made assault warfare—one force takes another's geography and subjugates it and its people—more costly. And so who competes best in this meta domain is who is going to have an advantage. It mostly favors the defense. Drone warfare can be a vanguard for assault, but all other things being equal, if both sides have it, then there are traditional ratios of three-to-one to assault looks like twenty-to-one, a hundred-to-one, and it becomes more costly. It doesn't deny an actor's desire to do it, but who masters that is who's going to prevail.

And then the third is that penetrating strike and how that penetrating strike can be done with drones. It can be done cheaply, it can be done with electronic warfare with low observability. But discerning precise penetrating strike against key vulnerabilities against key pain points has become a more salient instrument of affecting political outcomes.

And the megatrend that surrounds this is really the topic of the panel. And that megatrend that surrounds this is the ubiquity, the use, the quality of data, of compute, of algorithms that put those to best use and human employment of those at the tactical level. And that's swarming drones, that's mass data analytics for targeting at the operational level, which is how units move, how units affect fires, affects how units are protected. And then at the strategic level, decision superiority, who understands best what the nature of the conflict is, who is making the best decision, who is best able to see, understand, decide, and act, learn and assess. That is the overarching factor that dominates all three of the factors. Information, cyber, cognitive operations, counter assault, and then precision penetrating, survivable, discerning strike and the headquarters and the force that's using this to the best in the best way, data compute, algorithms, and human usage of it is who's going to achieve the non-linearity and the

best effects. And it will be our intention at U.S. Indo-Pacific Command to put that to the best use in order to prevail in the battlefield.

Gordon Lubold:
Tremendous way to frame it. Admiral, thanks. I'd like to open it up. I think here's my little softball question, which is to the group and you guys can all just jump in—not everybody has to answer every question, but I mean just generally. The U.S. is assumed to have the competitive edge on AI. Do you agree or disagree? And what's the concern in terms of that edge being decreasing? Anybody?

Stephen Ehikian:
Can I just start off—show of hands, how many people use AI every single day? Raise your hand. Okay, two years ago this was like 25% and I hat-tip the administration, this AI action plan, this focus of actually driving adoption of AI—two years ago, if you remember that it was like a moment of like "do we pause? Do we slow down development of AI?" And that would've been the wrong decision. And so this administration is leaning in, is recognizing that AI is still early, but it's accelerating and it is a core competitive advantage if used correctly. And so I'm very encouraged by the future here.

I'm very encouraged by the fact that we're talking about deterrence. The ability to integrate—AI is not just a tool to me, it's like a building design material to build decision advantages, build resilience into our supply chains—think about contest logistics. And so I think that is happening today. Startups, companies like C3, like others, we are racing ahead and again this administration has opened up opportunities for companies to come in and actually showcase what's possible.

Gordon Lubold:
By the way though, wouldn't you say that everybody should raise their hand here because everybody's using AI whether they know it or not, correct?

Stephen Ehikian:
Well I'm surprised this morning it was like the sentiment around AI was negative. AI is new and I think new things are scary, but the fact that most people are raising their hand is a testament to how much the pull from the market is needed. You're seeing it and I think that's a very positive trend for us.

Gordon Lubold:
Joe, go ahead.

Joe Lonsdale:
Well listen, AI is obviously existential for the question of warfare. And so I think a lot of us were trying to actually put the AI preemption into the NDAA, which it looks like it failed, unfortunately. But there's this big battle going on where we need America to win on AI, we need the infrastructure to be able to be built, we need the companies to be able to be profitable, we need this to be allowed to happen. And America has a natural advantage over China. First of all, we did make the breakthroughs here first. They're very good at copying and catching up and altering them. But second of all, for AI to thrive, it requires creative destruction. It requires actually new businesses to outcompete old businesses. That's going to be very, very hard in China where a lot of the local businesses and businesses being disrupted are owned by the local government officials.

They're not going to allow that. Hopefully we do allow it here. The big question is right now today there's over a thousand laws being proposed to regulate AI in our 50 states. If we just let all of these go through and we have different regulatory regimes in every state, it's actually going to not only damage growth in the U.S., it's not only going to put in lots of, I mean, really silly things, it's also going to damage our ability to defend ourselves. We're not going to win an AI against China if we block everything through these crazy regulatory schemes. That's a really big question we're facing.

Gordon Lubold:
Yeah, let's definitely come back to regulatory stuff. Emil?

Emil Michael:
Yeah, I'd say we're ahead in AI for a lot of reasons. Number one, if you just look at the four premier companies, they're all American companies that have the big research labs that are inventing and progressing AI. And the Chinese have some of the open source models which they've distilled based on our models. So I think we have the sort of most innovative companies bar none of anyone in the world by a long shot.

That doesn't mean that they can't catch up by using techniques that we might not do in the inverse. But we also have the most advanced chips and we have an administration that's pushing this extremely hard and to remove any roadblocks from energy, to making sure we have the right data centers, and remove permitting obstacles, and so on. Where the Chinese—I do worry about them—is when they make something a national priority, they can dictate top down and that could cause a lot of action.

They can connect their data sets together in ways that we can't do as fast and they're going to be developing their own indigenous chip sets with Huawei and hopefully that

doesn't catch up too quickly to the latest Nvidia chips, but they have a lot more people to put on the AI research problem. So it is imperative to stay ahead and it is imperative to make sure that these rules that people want to implement at a local level don't slow down these companies because they're crown jewels of America for our economy and for our military, and it's critical that we support them as such.

Gordon Lubold:
Good. Definitely this subtext here is regulations. We want to come back to it. Please.

Horacio Rozanski:
First of all, it's great to be back at Reagan. This is an amazing panel and to go last kind of sucks, but I'll say the following: I think the raise with China has three components in my mind. The first component is who has the best tech stack? The second component is who gets the most adoption around the world? And the third component is who uses this most effectively for national security?

On the first one, I agree with what my colleagues in the panel are saying, the U.S. is ahead. In chips and lithography for sure they have an advantage on energy cost. We have an advantage in models and an economy that actually will accelerate that and an investment model that is more innovative. But they're moving fast and they're making it a national priority. So we need to continue to accelerate, we cannot slow down.

Where their model and they demonstrated this in telecom with Huawei and other places is less around building the best models and more around adopting and on adoption, China is going all in. So one statistic from the last month is that Alibaba's Qwen model now has the most derivatives models built on it of any model in the world. Including there's a number of companies in Silicon Valley that are now using Qwen derivatives instead of American models, not because it's better, but because it's cheaper, which has really been the Chinese playbook since they reopened their economy.

So this is an area we need to focus on and the action plan is very focused on that, which I think is really important and brilliant. And then the third one, the one that we really are here to talk about today is who's going to apply it most effectively to national security? China has the ability to be much more unbridled in what they do, how they do it on cyber. They don't mind getting caught on some of the applications of technology. They're more reckless than we are. And so that's our issue. But clearly, especially with the push from the administration, AI is penetrating every facet of national security as the Admiral described in ways that are, in my view, very encouraging.

Gordon Lubold:

So fascinating. So I'd like to also just as part of the conversation, I really want to have examples of practical things people can take home in their brain after the conversation. But, Emil, I would like to put you on the spot and just if you could talk about, just to kind of touch on the administration and the Pentagon's policy on AI, what it is, what it means, and in a way, hopefully that people can understand because a lot of people I think don't necessarily understand what any of this means.

Emil Michael:
Well, for a department of 3 million people, we're vastly under utilizing AI relative to the general population. If you ask the same question and the same hand raises of who's using it for work purposes at DoD, it'd be a lot less admirable.

Admiral Paparo and his command is probably one of the premier users. They've adopted it faster than any other component because they've seen the utility and they're most urgent about it. And so we work most closely with them and then we take the learnings that he's developing and bring it to other places. But I think in the next few weeks to months, not years, you'll see this proliferate throughout the entire Department of Defense across three different layers. Sort of the corporate and enterprise use case layers that any big organization would use for efficiency purposes. The intelligence layer, how do you get intelligence, fuse it, analyze it, get more out of what you're collecting. And then the war fighting layer, which is logistics, modeling, simulation, targeting, all the things that you essentially are trying to increase the human context window using AI as a tool for that. And we are going to be doing that on all networks at DoW, and it's going to be sort of my number one priority for the rest of my term.

Gordon Lubold:
Interesting. I love it. Anybody else jump in? Joe, please.

Joe Lonsdale:
I think we're really lucky by the way to have top people from industry like Emil doing what he is doing and to have such amazing leaders like the amazing leaders, the Admiral too, I really admire.

I'd say the other thing we should think about when we think about what AI is doing is just changing the possibilities in general for how you even build the military and build armed forces. So for example, with our Navy, it's now possible to build an autonomous ship that's 180 feet long that because it doesn't have to have crew anymore because autonomy and AI changes what's necessary, you could have as much weaponry on that 180 footer as you would've on a 400-plus foot destroyer. And that would not have been possible five or 10 years ago. It wouldn't have been practical. And so now all of a

sudden you can have a lot more of these ships for much lower costs that are actually—and by the way, I'm not the expert here, but what happens when a battle starts and there's 500 people on a destroyer, you're probably going to want to run in a lot of cases because you're going to lose 500 lives. Whereas instead you have multiple of these with the same number of weapons. You no longer have to necessarily run without as many people on them.

Gordon Lubold:
I heard somewhere that the U.S. needs more ships. I don't know if that's right. Admiral Paparo, talk about that, because what I was struck by when I think Horacio was just saying is the tyranny of distance in your command, in particular. Is that what kind of animates your use of AI? It's kind of your thing as you told me before. But I'd love for you to speak to how you actually use it, and Joe's point.

Samuel Paparo:
I'm seeking to get to a theoretical limit. Theoretical limit is the maximum effect out given mass, people, and energy, which are the three factors, really the three physics factors. And so we want to achieve our objectives while suffering the fewest costs that we possibly can, too.

People talk about risk, what risk is. Risk is A, that you don't achieve the mission. And then B, it is what loss in people, capability, money, and time are you giving up? And what are you giving up in the post-conflict phase in your ability to project power and to fight again? And so I'm seeking the maximum efficiency for the force to put the right energy and the right mass on the right target in such a way that I'm paying the lowest bill for people, capability, money, and time. And it's part of what Joe is getting at on this and it is to be able to make decisions faster.

And so with a lot of the discussions as they talk about INDOPACOM, they say, "well, we're not going to commit this to the objective area because we're afraid of losing it." Well, I'd like to use AI to do something about losing it. Which is to use AI to dazzle, deceive, destroy the enemy's ability to see and sense so that their weapons are ineffective. To be able to parry those blows and or to be able to bring kinetic and non-kinetic counter fires that anyone who tastes combat gets hurt real fast.

And so the idea of AI is kind of the rules of autonomy. Don't send a human being to do something that a machine can do for you. Don't lose human agency over the offensive operations. The more defensive you are, the more you should rely on machines in order to parry blows and then make sure that you've got the networks on which you can do that. But it's the responsibility of every commander to achieve the objective at the lowest

cost they can—both for the conflict itself and for the conditions that succeed the conflict for where you are. We're seeking information and decision superiority at the tactical, operational. and at the strategic level.

Gordon Lubold:
And I'm going to ask our industry folks kind of the same question, but are you getting what you need? And what are the obstacles to getting what you need? I hear sometimes that you would like to get more of these ships for example, and you can't get them. And then to the industry folks, I'm going to ask when you knock on the Pentagon's door, do they answer it?

Samuel Paparo:
On the first question, on the AI tools itself too is that in our speed of adoption, we're working through some policy elements right now on the AI tools, but between the smart systems that we're employing and the AI agents or the LLMs [Large Language Models] that we're employing and the agentic computational game theory agents that we seek in the future, we're satisfied with where we are and we're working very hard on adoption is to get everybody at the zenith of adoption of these tools.

From the standpoint of force on force, no, I'm dissatisfied with where we are too. I'm confident in our ability to prevail in a conflict, but I'm concerned about the bill that we could potentially pay and I want to drive that bill down by making sure we continue to invest in the things that are timeless that we need given the changing character of war. And then investing in taking advantage of new opportunities, in investing in the timeful things that can give us key advantages. And that's the difference.

Gordon Lubold:
Stephen, you want to jump in?

Stephen Ehikian:
So I think an example of how AI is being put to use one of the administration's priorities is to accelerate the delivery of the Columbia class nuclear submarine, which is, I think, a decade behind. And if you've ever been to a shipyard—and I love the creative destruction Joe, there's startups coming in—but there's also shipyards that are building submarines to actually get people to the contested regions. You still need that.

And how do you accelerate the delivery of these submarines? If you actually analyze a shipyard, I mean, it's incredible the complexity, but they're all disparate machine shops manufacturing very discreet parts, not high volume. And it's all being managed manually and out of spreadsheets. So example, we're working with Newport News and

Huntington Ingalls, you go to that machine shop, you have people who care, they're passionate, but the sequence of production scheduling is literally out of hundreds of spreadsheets.

You have thousands of people managing this. You can imagine if a part is out of sequence, it's sitting on the docks rusting. If somebody doesn't show up to work one day, you have to literally rerun the schedules. And so what we're working with Huntington Ingalls on is literally how do you digitize and create a digital twin of that shipyard to actually anticipate one, predict the sequence of events, which parts should be built in what order? And if somebody can't show up to work one day, how do you get the right people in? And again, that's a highly manual process today that we're going to be automating. So it's a good example of how AI is actually being put to use today.

Gordon Lubold:
When would you realize that? When would that happen?

Stephen Ehikian:
It’s happening now.

Gordon Lubold:
I assume a work in progress?

Stephen Ehikian:
It's a work in progress. I think again, the hardest part talking about the data—it all starts with the data. Everyone has data locked in silos, not interoperable. We spend the most amount of time finding integrations in cleaning that data, transforming that data, making interoperable, creating a common semantic layer, then you can start driving actions, insights off of that and applications. But I think that vertical stack is really where I think the private sector can help out, where you take a legacy operation that has a lot of context and institutional knowledge and create a digital version of that that's continuously learning. So it's an opportunity to complement all these autonomous vehicles being set up, but ultimately you do need to get physical people to the contested regions and, then, within the region dispersed as well.

Gordon Lubold:
Who else might want to respond to the Admiral's position of “we could do more, we need more.” I mean where this fits from industry folks, what are the problems of helping?

Joe Lonsdale:

I think a lot of what we're doing with our very best companies, we're just starting to build even before we get the contract, which is very different than how it used to work. And what you're really seeing is partially AI, it's partially advanced manufacturing, and it's partially just the will to push through.

Let's be honest, there were 18,000 ships built in 1943. This country didn't have AI then, too. So AI is a big part of it, but you also just need people who are willing to run roughshod over the bureaucracy and just tell them to go take a hike and we're going to get this done. We're going to make it work.

And so what we're doing with a lot of the best companies, you're seeing that the military industrial complex, whatever you want to call the legacy companies—they had a cost plus incentive, they had bad regulations, they lost a lot of talent. It looks like we can do things about 10 to a hundred times cheaper, not two times, three times, but 10 to a hundred times cheaper for a lot of areas. And that's just starting to ramp up now with modern advanced manufacturing and with its kind of more like the 1940s attitude of how these things are supposed to be done. And we're just going to get those to scale as fast as we can with our top companies.

And you're later today, I'm not going to preempt it, but there's a big announcement on another big deal with one of our companies delivering a bunch of ships and selling more to the government. A lot of these things are ramping up for interceptors. There's going to be a lot of this stuff that does get done in the next few years and what we need is the most competent people in the Department of War to grab onto those and to help push the ones that are working. And we're starting to see that right now. So I'm very optimistic.

Horacio Rozanski:
I want to compliment the conversation about kinetic with the discussion of a non-kinetic that the Admiral also talked about. If you think about it, the intersection of AI and cyber is an explosive area of innovation and growth and, frankly, risk.

We talk a lot about drone storms, attritable assets, and those are going to come online over the next few years, but the notion of independent cyber agents attacking a network with essentially no human in the loop or on the loop—that's immediate. We're talking 2026, we're not talking into the future. And both those tool sets need to be developed faster and the defensive mechanisms which also need to be AI driven because there's absolutely no way for humans to play at that speed need to be developed faster. While we're working on that and the Department is working on that, I think this is an area that could and needs to be accelerated because I think that threat is now.

Joe Lonsdale:
We were talking about that backstage. I mean, you could say it's one or two orders of magnitude for some of these other areas of production. It's multiple orders of magnitude for the cyber thing. And the thing we have to realize, it's actually very scary. I don't even know how much you should talk about it in public, but it's really been a sort of major change in the last month or two. I don't know if singularity is the right word, but the agents are clearly significantly better than people and just massively so. And we have friends who can break into almost anything at this point with the latest technology. It is very scary. So this is an immediate need. We got to figure out fast, the Department of War.

Emil Michael:
I would add, Horacio said something a bit ago, that the adversary has no rules on this, none. It is almost cost-free for them to do what they did to one of our national champion AI companies using agents to sort of infiltrate the model and that could go to the bank. Our industrial sectors and lots of other places. And we have to really change our mindset about how we think about defending ourselves and imposing cost when that happens. And if we don't, we are going to be sitting ducks and I'm not okay with that. The Department of War is not okay with that. The Secretary is not okay with that, neither is the President. So that's why we are leaning as far forward as possible. AI was sort of introduced in the Department eight years ago and we sort of didn't make progress. In the next eight months, we're trying to do more than we did in the last eight years.

Gordon Lubold:
Everybody's kind of chomping at the bit about talking about regulatory issues. I think Joe, you said 50—a thousand?

Joe Lonsdale:
There's a thousand new proposals for regulations laws in 50 states right now.

Gordon Lubold:
So it goes back to one of the original points I was making: people don't understand AI and members of Congress, a lot of 'em don't either. And so is there a fear, is there a default to regulate because of this fear?

Joe Lonsdale:
Yeah, maybe I can take this one a little bit. And so with my Cicero Institute, we have teams in 23 states. We started seeing this a lot two years ago and I ramped up a lot last year and even increasing. And listen, I think what we need is some kind of reasonable

compromise because there are some of the laws where obviously you want to protect children, and you want to have some transparency on big tech, and we shouldn't just let big tech do whatever it wants. There needs to be some framework where we have regulations to protect copyright owners, these sorts of things. And so I do think a compromise needs to be had.

The problem is several hundred of these laws are frankly just not written by people who understand the technology at all. And so it becomes almost comical nonsense. They want to put developers in jail, they want to stop us from using any kind of scoring of people because China scores people for their credit system. Therefore we shouldn't score people, by the way, every app that we build an AI to score customers and services and stuff.

So it would just break everything if these things got through and it would also make you have to walk through all these Byzantine regulatory things to deploy something and that would not be good for any of our companies or for America. And so what we try to do is preempt it nationally. The problem is they preempted it without holding AI accountable at all. And so a lot of the populace said, “that's not fair.” So now the question is can we get a compromise? That's what we're trying to work on.

Gordon Lubold:
Anybody else want to weigh in on that?

Horacio Rozanski:
I think this is an issue of speed and we just simply cannot slow down. I think the stakes couldn't be higher at the national level and to slow down the adoption of AI—yes, we need to be responsible of course, and we need to do it the right way, but to slow down the adoption of AI through a patchwork of regulations where you cannot achieve scale because every state does it differently is going to be fatal.

And by the way, we're talking here about AI and this is the wave that is beginning to build, but the quantum wave is coming right behind it. And so whatever we are doing here, we'll set the framework for the next big challenge to national security. And the idea that we can defeat China by slowing them down has proven to be not true. The idea that we can win by slowing ourselves down is clearly not true. So we absolutely need a different mechanism to do it and it has to be done at the national level.

Gordon Lubold:
Admiral, do you want to just expand a little bit on what—it's not regulation that's kind of necessarily slowing your vision down necessarily? It's maybe just Pentagon

bureaucracy? And then of course we have Emil right here who can speak to that. But do you want to expand a little bit on A, where you'd like to be if we have the same conversation in a year or two years from now and why it will be difficult to get there?

Samuel Paparo:
Yes. Well one, on the issue of ensuring that we've not put in place an asymmetry with the part of our potential adversaries in that they have no guardrails and are using all of the computational power of an AI tool, and we are not because we've got the vapors over something in the future is ensuring that we've got some human accountability on AI's usage in order to ensure that we can use all of its computational power is how we're going to achieve information superiority and decision superiority on the bureaucracy on the sclerosis that is within our defense acquisition system, which rests on everybody. Everybody's got a piece of this sclerosis. I applaud the legislative steps that we've made thus far and I also applaud the steps that have been made by leadership on breaking down these barriers to acquiring the right capability in the right time.

And so there's a policy element for it about how we are putting our own cyber and information tools to work enabled by AI and there is tremendous power in how we are trying to take say 21st century capability that's being produced via 19th century processes and matching up everything that we're doing too.

In fact, we're going to have to take a little bit more legal risk to reduce our physical risk because that's the space that we're into. And as a commander, your troops will take way more physical risk than you're comfortable with and your troops will take way less legal risk than you're comfortable with. And so I think understanding these risk frontiers is really important in setting these policies too and this balanced approach that Joe talks about where we are not eschewing regulation writ large, but we're understanding that in order to move fast, we have to be ready for the proposition that something as bad is going to happen and to be ready to deal with that aftermath and accept the responsibility for it.

Gordon Lubold:
That's interesting.

Stephen Ehikian:
Just to add onto this, I think two things I want to compliment this administration on is speed is a competitive advantage and I think one is increasing the talent density in government. And Emil, you're doing a lot of things bringing great technologists in because I think historically you've had non-technologists making decisions around

technology. And on top of that, they've been trying to build everything in in-house with GOTS [Government Off-the-Shelf], government produced bespoke solutions.

So getting the right people in place who understand the technology that can comment on cybersecurity as an example to compliment the policy makers that are drafting this. I think we need policy, but we also need practitioners helping draft this to understand the tech.

Second is the push towards GOTS, buying commercial off-the-shelf technologies that enables more startups and commercial products that literally do this job, which is produce software and hardware. And that's not what the government does. So I would say the two areas of talent density and buying more commercial off-the-shelf is a huge big accelerant to the industry.

Samuel Paparo:
Yeah, a point on that too, just to make a quick point is that you've heard that for so many years, people said that it was defense that led innovation in America and this is the adoption of email which began as a DARPA project among many other innovations. And we frequently lament that military isn't leading innovation anymore and that the commercial world is leading innovation. I think that's a great thing. I think it's great that the commercial world is leading innovation and I think that it's perfectly well ordered that military innovation follows commercial innovation and that we accept that model that it's not that our military research has fallen behind, it's that the engine of American innovation has taken off such that commercial innovation has surpassed that.

This is why I embrace the employment of commercial off-the-shelf technology to find those military applications from it. I don't negate having to continue because some research is inherently military research, but there's so much that goes on in the commercial space that has immediate applications that we could put together at speed.

Gordon Lubold:
We could go into a whole thing about scaling and all that, but let's maybe put a pin in that one.

I don't fully understand this. I'm going to leave it to you guys to help us all understand better, but the elephant in the room seems to be a potential bubble and a potential burst of the AI bubble, for lack of a more artistic way of describing it. Do you agree or disagree? What are the perils there? And if there is a burst, how deep is the correction and what does it look like? Also, some people can understand.

Joe Lonsdale:
Yeah, so I personally am not as worried about that and the context I'll give you is that you have hundreds of these companies are working in the real economy right now. So it'd be one thing if you're making a lot of money selling data to OpenAI because that could be part of a bubble because OpenAI gets lots of money and you make lots of money selling data, and then what if it loses its money? So that's a very reasonable thing to question. The thing I wouldn't question as much is that you have, in America, you have about $5 trillion of wages in our services economy and over 2 trillion of those, over 40% of those, are in areas where we've already shown you can double the productivity. In many cases, triple, quadruple productivity. And so you have hundreds of companies growing very, very quickly that are basically providing services that are apps in the economy, whether you're in construction, whether you're in the backend of logistics and financial backends.

And so what this means is you're actually creating very quickly already probably hundreds of billions and very soon trillions of dollars of value in these areas. That's real. That's not a fake thing. So even though the amount of money going into the core models may ebb and flow, you're just going to see I think monotonically upwards in those areas that are creating real value, which is enough. The only way we're going to have this whole thing implode and damage our national defense would be that if we stop all these companies creating productivity from scaling, then we couldn't invest anymore in the infrastructure at all because these things would've been stopped and then it would fall, but it's not going to fall because it's a bubble. It's only going to fall because we screw up the regulation.

Gordon Lubold:
Interesting. Okay. I feel like there are other views. Anybody jump in, Emil? Bubble or no bubble?

Emil Michael:
I'm not in business anymore, so I don't know. But I will say that to answer one of the questions before a little bit, in less than 10 months with Secretary Hegseth under his leadership and President Trump, we've launched the most aggressive acquisition requirements reform in the Department's history. The Secretary of A&S [Acquisition and Sustainment], Mike Duffy has championed and led that. We're about to do something similar with AI. We've launched incredible reforms, understanding that the bureaucratic way of buying things off the shelf from small companies that have great technology in a different way using AI and COTS and those things. We are at the very beginning of a full transformation of the Department and it's going to take years for us to push it all the way through culturally, but the will is there at the top and that's why we created organizations

like the Defense Innovation Unit that has rapid contracting authority. The Office of Strategic Capital—which we've done three deals on critical minerals in the last 45 days to make sure we're reducing our dependency on our adversaries. We are moving out and fast on this. Thankfully due to leadership impetus in this because we do need an arsenal of freedom. It is that moment again, to industrialize these things in AI is going to be a big part of that. I'm proud of what we've done so far and excited about where we're going.

Gordon Lubold:
Anybody else want to weigh in on the bubble thing or?

Horacio Rozanski:
I'll go in. I think you're asking two questions at the same time. One question is are there some valuations that are excessive? Are there some companies that are going to see their value decrease over time? It always happens. It probably will happen here. So if you want to call that a bubble, then that element is clearly there. There's a lot of exuberance around the topic. And so that's that.

There's a separate question which Joe was alluding to, which is, is this technology going to create real value or not? And so is it a bubble, is it a mirage or whatever you want to call it. And I think that is settled. I think that the power of these technologies to transform just about every aspect of the economy with national security and so forth is well proven. We're just at the beginning of that and that is going to continue to drive.

In my mind, in addition to the regulatory conversation, the biggest risk to the value creation of this technology is adoption and the speed of adoption because all these models are amazing. They do things that are incredible. They're getting to places that a year ago were unimaginable, but you need to build on top of that, the things that actually create the use cases, create the specific value and so forth. You cannot simply take a large language model and take it to INDOPACOM and say, “well, give me a whole new military doctrine.” And you probably could, but I think what you would get would be entertaining as opposed to useful. But you can build on top of that a lot of the applications that ultimately will allow Admiral Paparo to have information superiority, decision superiority, decision advantage and so forth.

And to me that piece is the next level that we need to focus on. This is where we're mostly interested, is how do we drive adoption by making this useful at the edge, in the mission, in the places where it's most needed, in a way that it is resilient, that it is effective, and that it is cost manageable.

Stephen Ehikian:
I can just add on, the other risk in my mind, if it's a bubble or not. But the biggest thing ultimately are the people building these technologies and a human. And I think talent is going to be a big, big gap. I mean, the demand for AI talent engineers right now is insatiable. I know immigration's a hot button topic here, but I can understand both sides, but we have to find ways to bring the best people around the world to come to the U.S. that want to come here. They want to be educated, they want to build companies. We have the best environment. I wouldn't want to be anywhere else in the world to build a company than right here. So I think we've got to figure out a way to make this continue to be a beacon and a home for people who are smart, motivated, and care, to be able to come here and build using the technologies, the resources, the capital markets that we have available.

Gordon Lubold:
Good point. I had a question that came in from a friend, and it's probably for Admiral Paparo and for Emil. And then I got a couple other things, and there's a bunch of nice questions here. I'm going to try to get a couple of them.

But under the previous administration, the replicator program was going to give you, I think Admiral Paparo, hundreds and hundreds of autonomous drones that I think that you don't have. And can you give us a status update on that?

And then to Emil, is that program which may be again from a previous administration but maybe had some good bones to it. Is that a dead program or where's it going?

Samuel Paparo:
It's alive. It's alive. Its resident, the Deputy Secretary of Defense has focused it in an autonomous war fighting group, and it's very much alive. We are simulating to it, we're exercising to it live. Not in any space in the Western Pacific, but in secure spaces where we can do our maximum learning.

So the answer to your question is yes, and yes, it's alive, it's been renamed from replicator, but the quality of it is the same, which is that in some spaces you need not fight for air or maritime superiority. All you need to do is deny it to another. And this gets back to that second changing character of warfare is that assault warfare with the commoditization of drones has made assault more costly. And taking that into account, having the kind of operation and having the kind of capability that can be quickly deployed in that space and make assault cost prohibitive, will inherently benefit a denial defense and will inherently benefit a state that does not care to have another state change the facts on the ground with force.

And so these principles of cognitive information operations, cyber operations, commoditization of drones, making assault costly, and the growing salience of penetrating strike, and to do all of these as cheaply as possible are very much alive and are making even greater strides in the most recent months. Not enough for me because I'm never satisfied and you pay me to never be satisfied.

Emil Michael:
I would add that we have embarked on a drone dominance initiative at the Department of War that the Secretary just announced a couple of days ago, and it was funded by Congress, and that's for smaller drones. And what we're working on with Admiral Paparo and the autonomous warfare group is larger drones, one-way attack drones. We have to be dominant in both. We can be dominant in both.

What we've learned from the Ukraine-Russia war is that the front lines of a conflict over territory are robot-on-robot now. That is what happens when you're fighting over inches of territory. I hope we don't have that problem with Canada and with Mexico, but we do have to think about counter drones coming in from Mexico with drugs and all those things. So we have to have a robust small drone program, a robust large drone program, and an even more robust counter drone program.

We have three big events coming up next year in this country, the World Cup, 250th anniversary, Olympics. We've got to make sure the sites are protected. The counter drones are important, as are drone one-way attack drones. So those things are again, things we talk about every day, every week and making progress on.

Gordon Lubold:
I want to get to a couple of the quick questions from here, and there are good ones. We're obviously not going to get to all of them, but I wondered especially—well anybody—the kind of anti-nationalist sentiment from Silicon Valley and concerns about working on security issues. I think we generally thought that some of those concerns had lessened over time. I wonder how you all see particularly you guys see that now and is that a concern?

Joe Lonsdale:
Yeah, I think it's no longer as big of a concern. When we started Palantir 23 years ago, people thought we were from some other planet, “what the hell are you guys doing?” It was like, “why are you not working on social media or something?” And then fast forward, I wasn't quite as involved in defense for a little bit. And then in 2017 is when Anduril first came up with Palmer and three of our former colleagues who started this

amazing company and we were involved, investing in the first round, collating in the second round. And in doing that, I got messages which were like, “we're never working with you again. You're evil.” A lot of people from the bio world said, “we're trying to save lives. You're trying to destroy lives. Please don't talk to us again.” I mean, it was just like you’re basically isolated or excommunicated from polite society for doing defense in the valley.

It was this really negative thing. And that was true for maybe two or three years. And I think what happened with Ukraine and then the kind of shifting energy there and then also just maybe people realizing with China what's going on, but it really just shifted more towards, it was okay, and all of a sudden it was even popular for a lot of people to work on. So I haven't seen it being a problem now like it was. And I think partially because Anduril and Palantir and other companies became so successful too, it became this cool pro-America thing. So fortunately I think we're in a good spot, but I'm open to other views.

Gordon Lubold:
Horacio, Steven, do you guys agree?

Horacio Rozanski:
Yeah, completely. I mean, we have 10,000 veterans in our workforce, so it is relatively easy for us to have a conversation about the importance of national security here in America and making America stronger. But also, frankly, a big part of our value proposition is we don't have the economic power of some of the private capital companies to pay people what they're getting paid. We don't have billion dollar comp packages for AI professionals like they've been advertised in other places, but our people stay with us because of the mission. They come to us because of the mission. They stay with us because of the mission. They care deeply about not just advancing these core technologies, but advancing them in this purpose. So I think that there's tremendous opportunities, a lot of young people in America that want to be part of this, that want to contribute, and we just need to have the open doors to attract them.

Stephen Ehikian:
I'm in Silicon Valley, near Palo Alto, and I'd say focusing on defense and core industries and real world use cases of AI is a competitive advantage right now. I think a lot of engineers want to be, they're attracted by the mission, working on the hardest problems at the largest scale and defending this country, powering industries like energy, healthcare, manufacturing is very, very attractive right now. So there's a sense of mission and I think it's a positive thing.

Gordon Lubold:
Alright, interesting. Here's a question that gets to some of the practical issues. We only have a couple minutes left here. It'll probably go to anybody. But to Admiral Paparo, I'll just read it. “With the adoption of AI in defense, how will the designation of the front lines change should the U.S., who has traditionally not had to worry about conflict on our shores, begin to plan for warfare closer to home?”

Samuel Paparo:
Well, I'll tell you, our potential adversaries are building and designing a force that just goes beyond all island chains. And so the United States is blessed with a particularly defensible geography, but not an impenetrable geography, and a geography from which costs can be imposed.

And so as I've discussed about the changing character of warfare, and the changing character of warfare is changing in such ways that are very non-traditional and very penetrating, very long range. You see the commoditization in space, space is becoming a crowded space. You see the forces that our potential adversaries are designing—and this gets back to the very first statement I made as we referenced the National Security Strategy—which is that everybody in the military's first responsibility is homeland defense. And I don't think that we should take for granted—at first, I think that I'm strongly in support of Golden Dome. I'm strongly in support of our own homeland defense, and then the ability to build a defense in depth that spans from wherever our potential adversaries are, over every inch of air, sea, and sky, and through every bit of cyberspace that places America's defense first and foremost. Our AI tools to achieve decision superiority, to be able to see, understand, decide, act, to be able to sense these threats ahead of time, to thwart them and to potentially impose costs, and to ensure that our adversaries know that the cost of aggression far outweighs any benefit of aggression, is our first responsibility. AI is going to be the non-linear tool that's going to be able to enable us as a country to do that.

Gordon Lubold:
Nice closer. I had this great question I was going to end with, but I think we are out of time. I hope everybody could join me in thanking our panel.

Announcer:
Ladies and gentlemen, this concludes panel two. Panel four will begin in 10 minutes on this stage and panel three will begin in 10 minutes in the Air Force One Pavilion.

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