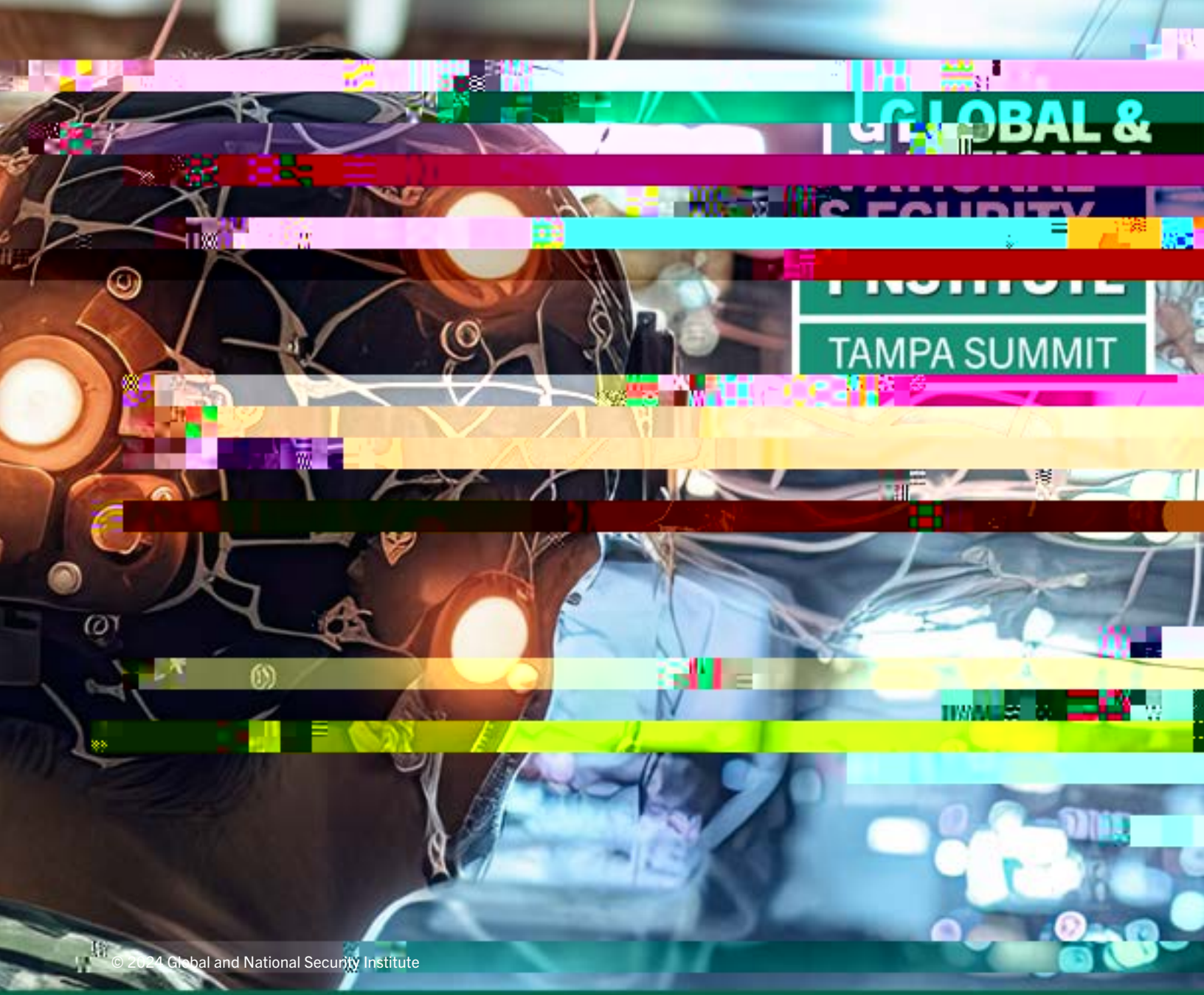

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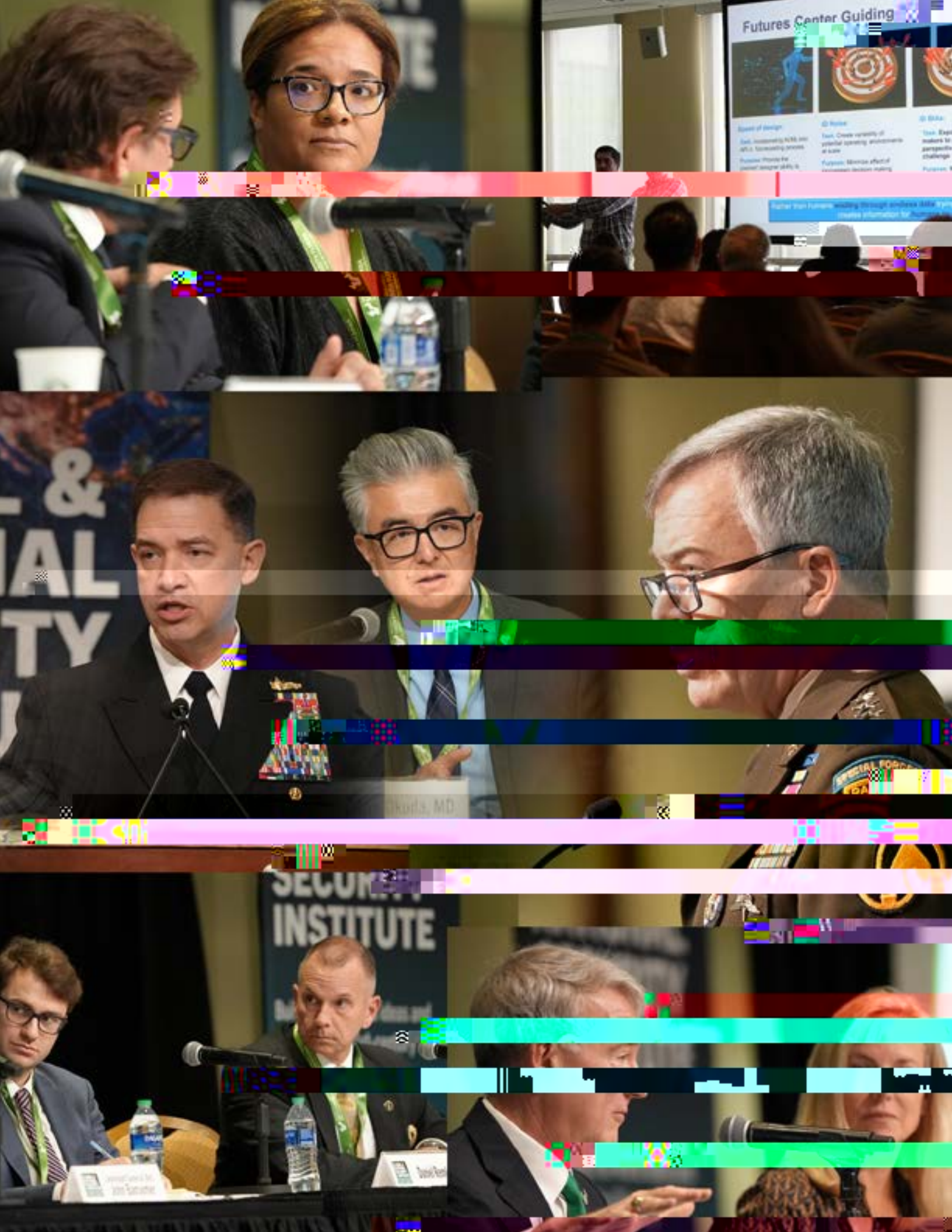
GNSI TAMPA SUMMIT

Featuring the 9th Great Power Competition Conference

ARTIFICIAL INTELLIGENCE IN THE ERA OF STRATEGIC COMPETITION

SUMMIT REPORT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GNSI Tampa Summit 3: Artifcial Intelligence in the Era of Strategic Competition served as a natural extension of our previous summit, which focused on uncrewed and autonomous warfare. At GNSI Tampa Summit 2, we learned that the gathering, processing, and efýcient use of information will be a dominant factor in any future conþict. In this latest Summit, as you'll read in this report, we learned the processing and manipulation of vast amounts of information in a very short time frame is the primary strength of artiýcial intelligence, as well as its capability to evaluate that information in the context of its environment and other sensory data.

We heard many experts tell us the hype surrounding artiýcial intelligence is currently superheated, and there is a gap between the hype and reality. I think weôre wise to be excited about the future of AI while still understanding its current limitations.

To paraphrase something former Secretary of Homeland Security Kirstjen Nielsen said during *GNSI Tampa Summit 3:* We see something that uses a thinking process and want to believe it is, in fact, thinking. But that's not necessarily true.

That distinction is important. As a leader, I want AI to gather all the available information, evaluate it and provide me with quantiýable data in the form of an understandable and actionable reference frame upon which I can build a decision. I would seek help from AI for such quantitative decisions; I would not seek help with a qualitative or subjective decision. My former mentor, General Jim Mattis, gave me some great advice once: with any problem, you want to solve as much as possible quantitatively, as that will reduce the amount you have to solve qualitatively, or subjectively. Those qualitative decisions are still the province of humans, in my mind.

Modern, advanced weapon systems, frequently uncrewed and (sometimes) autonomous, are becoming far more prevalent on the battleýeld. We also know artiýcial intelligence is a vital component in those systems. But, in this latest Summit, we found out that while AI can be an enormously helpful tool, the closer it gets to conþict the more dangerous it becomes as the tool itself will come under attack from opposing forces that are aggressively trying to break it.

Nevertheless, artiýcial intelligence has been a force multiplier in many areas and its potential in other areas remains almost limitless, especially if you apply it to cybersecurity and cyberwarfare. Cyber is now considered the ýfth of the ýve battle domains: air, sea, land, space and cyber. Russian President Vladimir Putin is quoted as saying, ñThe one who becomes the leader in this sphere (AI) will be the ruler of the world.ò I think heôs wrong. AI is a subcomponent of cyber, I believe, and that quote should really state: ñThe one who becomes the leader in cyber will be the ruler of the world.ò We often think of outer space as being limitless, but I would argue the cyber realm is also without limits. We know and understand far more about space than we do about cyber.

The effects of cyber operations can be seen in Ukraine and Gaza to]ˢ .f W ethfeee
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Summit Report

Summit. The Honorable Kathleen Hicks, Deputy Secretary of Defense spoke to the geopolitical landscape, highlighting the competition with the Peopleôs Republic of China (PRC) as a driving force behind AI and technology advancement. She noted, ñthe advantage will always go to the country that uses AI and associated technologies better, faster, smarter, and safer,ò pointing out the critical role of AI in maintaining national security and global leadership. Hicks further underscored the strategic imperative of AI in maintaining a competitive edge, particularly against the PRC. She explained, ñour task in DOD is to adopt the innovations wherever they add the most military value,ò highlighting the critical role of AI in strengthening the U.S. militaryôs decision-making processes and operational effectiveness. General Bryan Fenton in his role as SOCOM Commander has ñwatched the PRC use AI to augment cyber-attacks, support economic espionage and assist in the development of what they call system destruction warfare where their goal is to destroy weak points and ours and partner in ally systems across domains with targets such as network connections and satellites and logistical supply systems.ò

Discussions continued the imperative of achieving a competitive edge in the context of international rivalry with powers like the PRC. John Shanahan bluntly stated, ñwe are in a competition with China on AI if not a confrontation at times.ò Former Security of Homeland Security Kirstjen Nielsen also brought up concerns about Chinaôs aggressive data acquisition strategies and their potential use of stolen intellectual property to advance their AI capabilities. She reþected on the vast amount of data China has stolen from the United States, hinting at the signiýcant implications this has for AI-enhanced capabilities and strategic competition, stating, ñDirector Wray [of the FBI] recently said that he believes that the amount of data that has been stolen from the United States, from every country in the world combined, is still less than the amount of data that China has stolen from the United States.ò

However, the narrative that the U.S. and China are locked in an AI arms race or competition over data that will determine the future of global geopolitics and the global economy may be over-hype according to Roberto Gonz§les. He further states ñthereôs compelling evidence that many analysts are overestimating Chinaôs current AI capabilities and even its military capabilities. While itôs true that Chinaôs technologies have improved greatly over the past decade, it's also important to avoid exaggerating the improvements by claiming that theyôre an imminent threat to U.S. national security.ò Gonz§les continued, warning that ñþawed assessments on both sides run the risk of making the AI arms race a self-fulýlling prophecy.

Russia's Use of Artiƒcial Intelligence

One cannot have a meaningful conversation on strategic competition without including Russian capabilities. While the main concern was not Russia gaining a competitive technological edge, instead discussion focused on how the Russian state and military are implementing AI. General Bryan Fenton acknowledged the ñRussian military and the Russian Federation are also using large language models and those tools to conduct reconnaissance of satellite capabilities to support their operations in a cyber and space domainò Major Juha Kukkola of the Finish Defense Forces also mentioned how ñRussia is very interested in developing AI solutions for economic purposes, for controlling its own society, for information warfare and for conventional and nuclear warfare.ò

Regarding information warfare, Todd Helmus mentioned ñRussia has a huge apparatus for sowing disinformationò that can target multiple audiences. Helmus also commented how historically ñRussians have targeted political partisan actors in the United Statesò and that ñitôs going to be a big [national security] issue if the U.S. faces a conþict in the future. Those partisan divides are going to be targeted by adversaries to upend the U.S. political will for that conþict.ò A fellow panelist, Heather Ashby thoroughly discussed how Russia used disinformation campaigns in its invasion of Ukraine. She also pointed out how ñmost of the Deep Fakes that take place are targeted towards women. So thatôs another tool when we think about conþict dynamics, is when conþicts take place, you have certain militaries, malicious targeting women and engaging in sexual and gender-based violence... [Additionally], the Russians have used this against a Ukrainian MP previously a couple of years ago of creating

states have high technological innovation, potential modern digital infrastructure, and skilled workforce, we have very limited resources concerning [things] like microchips, large data sets, and of course money. Therefore, everything related to AI cannot be done nationally in small states.ò Most countries will have to get technological resources from either the United States or the Peopleôs Republic of China. However, Julian Mueller-Kalen, voiced that there is a ñhuge economic cost for those countries to have to choose sites between the United States and China,ò which may even lead to a bifurcation of supply chains.

The U.S., speciýcally the Department of State, needs to work collaboratively with countries, Daniel Remler advocated to ñappeal to states around the world regardless of income and regardless of speciýc strategic context in many cases.ò He stated, ñthe key thing is to understand the aspirations of states, like India, to use AI to leapfrog up the development rankings and to give them the best offer that we can in terms of why partnering with the United States is in their interest economically, strategically.ò As artiýcial intelligence becomes a critical component of strategic competition, it requires thoughtful integration in national security policies and applications.

There is no denying artiýcial intelligenceôs practical applications in the national security realm; however, John Shanahan addressed the ñrhetoric-reality mismatchò in AI, acknowledging the gap between the expectations set by science ýction and the current capabilities of AI, particularly large language models. Such discrepancies reþect the theme of AI being overrated or over-hyped. Matthew Mullarkey even claimed ñsaying AI is a terrible misnomer, r],] ɣ D l E ŧ

decisions, to ensure AI usage aligns with human values. His remarks suggested a nuanced approach to regulating AI, advocating for its use in less critical domains like logistics while cautioning against its unchecked application in combat situations. ñI think the U.S. perspective should be you need to apply these tools ethically, which means thereôs got to be human judgment involved, particularly if you're going to kill someone.ò

The potential and current use for artiýcial intelligence is considered a net positive, but many speakers echoed the desire to keep humans in the decision-making loop. John Licato afýrmed ñnot only we want the human in the loop, even when we know the AI can do well for backup purposes, but I wonder how much of that is that we need someone to blame if things go wrong.ò Having a human in the loop for accountability may also ñgive a false sense that weôre doing something to avoid, to mitigate riskò David Oakley cautioned. Risk is inherent when utilizing AI in scenarios with a high level of complexity. Still ñpeople are much more comfortable with having the human in the loop to handleò decisions, Leslie Babich posited. She also mentioned there needs to be ñbalance between the hardware and the humans. The number one SOF truth is humans are more important than hardware. And I will always believe that because the tool is only as good as the people that are trained to use it.ò Sharon Daniels agreed with Babich, insisting ñeven if youôre doing a full end-to-end automation process, if you are augmenting humansô capabilities of analyzing, and even with automation, the human in the loop...if you are using some of the newer technologies like an LLM, thereôs an absolute requirement to have human in the loop at that level.ò

Julian Mueller-Kalen warned, ñif you take that human out of the decision-making loop, I think we are going to be in a world in which the dangers are far greater than we can yet anticipate...because those large language models have become so increasingly complex that we donôt even understand how they actually make decisions now.ò However, Peter Bovet Emanuel stated, ñallowing AI to be part of decision-making calculus implies making trade-offs such as less human control decision advantages will probably have to include the acceptance of a new decision continuum.ò The Department of Defense is committed to keeping humans in this new decision-making continuum when developing and applying AI technologies. Nonetheless, there was recognition by speakers that American adversaries were not bound by similar ethical values. Major Kukkola stated in his opinion ñthat we should ýght ýre with ýre. There has been a lot of ethics, talk about ethics here and I totally agree, but we shouldnôt tie our hands behind our backs because they are not going to do that.ò General Fenton also observed ñNorth Korea and Iran use AI to assist in their cyber-attacks and cryptocurrency theft. And none of these applications cares about an ethical approach or anything rooted in democratic values because they donôt have to, and they donôt want to.ò

Development of AI technology requires an interplay of funding, resources, and partnerships between government, industry, and academic research institutions. Mark Abdollahian claimed, ñmost of the innovations coming from AI coming from the IO [information operation] space are not from three letter agencies. They're not coming from corporations with multi-billion-dollar budgets. Theyôre coming from individuals, and those individuals have access to technology.ò In his conversation with Dr. Mohapatra, Ylli Bajraktari elaborated on the triangle of innovation between academia, industry, and government. ñHow do we make sure that academia is set to win in this [strategic] competition... because building these large language models requires a lot of powerful semiconductors that are really expensive. Most of the private sector companies have access to this.... And then others that have academia still needs access to these resources so they can invest in basic RD [research and development], invest in application, invest in the next generation of innovation in campuses, and then private sector can scale this.ò Damon Woodard also advocated for more investment in AI research infrastructure, like the $70 million AI supercomputer, enhancing the University of Floridaôs ñresearch capabilities to investigate advanced topics in artiýcial intelligence.ò

Contrasting with Abdollahianôs previous statement, Adriana Avakian perceives how ñindustry is delivering and developing those technologies for defense... what I see today is that theyôre critical technologies that are defense ýrst that similar to that spawning of other opportunities in the commercial sector that we will see in the next two to three years being part of critical infrastructure, critical industry.ò Fundamentally, the defense sector is providing an impetus and funding to drive AI innovation.

Roberto Gonz§lez raised concerns about the ñmilitaryôs demand for AI products serving to justify and accelerate U.S. defense spending. In the tech sector when Amazon is awarded a $10 billion cloud computing contract from the NSA or when Microsoft lands a $22 billion VR headset contract with the Army, itôs understandable why tech executives repeat the grand narrative. It's in their interest to do so and in the interest of their shareholders. That said, we should recognize that today the nature of the military industrial complex has changed. The defense department has come to rely more on business leaders than business leaders on the defense department.ò Meanwhile, General Fenton knows ñthese partnerships give us an opportunity to alter the tactics and reshape the landscape either of conþict or in

competition or crisis to our advantage, advantage to team democracy. But it canôt be done without partnering with academia, industry and international teammates.ò

Regardless of the motivation for AI technological innovation, the issue of regulating the development and application of artiýcial intelligence without stiþing innovation was a topic discussed throughout the Tampa Summit. ñThere is this fear whenever we bring up the topic of regulation with AI that itôs going to just hamstring us in our ability to adapt and innovate quickly and thatôll make us lose our competitive advantageò John Licato stated. Regulation of AI is shortsighted, Damon Woodard believes. ñWhen we talk about artiýcial intelligence, we have three components. We have data, we have math, and we have compute. The best you can hope for is to regulate the data.ò There is an overarching concern that too much regulation will prevent research and industry from rapidly keeping pace with demand for AI products. Congresswoman Laurel Lee emphasized the importance of having ñbalanced legislation that that

of data and information as well as the speed challenges our

Day 2 March 6th, 2024
Speakers:

Research Quick Shots:
Learning Co-Speech Gesture for Multimodal Aphasia Type Detection
Daeun Lee, PhD candidate and Visiting Scholar
Applications of Cognitive Modeling in Multifactor Authentication
Stephen Steinle, PhD Candidate
FT-CycleGAN: a novel frequency-based loss function for visual-and-IR image translation to boost multimodal object detection
Nicolas Bustos, PhD Candidate
The Impact of using Data Fusion with Synthetic Images on Multimodal Object Detection
Mehrsa Mashhadi, PhD Candidate
Intelligent Dynamically Adaptive Simulation for Medical Trauma Team Training
Dr. Paul Hungler, Associate Professor, Queens University

Roundtable 2: Developing the Future AI Workforce
Moderator: Matthew Mullarkey, Director of the Doctor of Business Administration, Muma College of Business, University of South Florida
Avik Batra, Managing Director, Accenture Song
Angela Cough, Senior Advisor, Digital Talent, CDAO
Joe Partlow, Chief Technology Ofýcer, ReliaQuest
Sharon Daniels, Senior Leader, Arria NLG
Eric Vogelpohl, Chief Technology Ofýcer, Presidio

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Today's national security environment is increasingly complex and covers global problems such as strategic competition, extremism, biothreats, climate change, disinformation and cybercrime.

To address [illegible], the University of South Florida formed the Global and National Security Institute (GNSI), positioning USF as a leader in developing robust [illegible] analyses of large-scale global and national security problems.

Advances in areas such as artificial intelligence, robotics, [illegible] and biometrics will require national security policymakers to understand new complexities. GNSI will work closely with leaders and experts from academia, government and the [illegible] to provide actionable solutions for decision-makers at local, state, national and global levels.

[illegible] focused on the boundary of security policy and technology, GNSI is well situated to leverage the existing academic excellence of USF, a [illegible] American Universities (AAU).

Opportunities currently exist to sponsor GNSI [illegible] and conferences and to provide operational support to extend the efforts of the institute under the leadership of its executive director, retired Gen. Frank McKenzie, former Commander, U.S. Central Command.

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