

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

**Protecting Critical Technologies for National Security in an Era of Openness and Competition
Meeting #5**

**Workshop on Artificial Intelligence
Speaker Biographies
July 12, 2021**

Yolanda Gil is Senior Director for Strategic Artificial Intelligence and Data Science Initiatives at the Information Sciences Institute of the University of Southern California, and Research Professor in Computer Science and in Spatial Sciences. She is also Director of Data Science programs and of the USC Center for Knowledge-Powered Interdisciplinary Data Science. She received her M.S. and Ph. D. degrees in Computer Science from Carnegie Mellon University, with a focus on artificial intelligence. She is a Fellow of the Association for Computing Machinery (ACM), the Association for the Advancement of Science (AAAS), and the Institute of Electrical and Electronics Engineers (IEEE). She is also Fellow of the Association for the Advancement of Artificial Intelligence (AAAI), and served as its 24th President.

Lieutenant General **Michael S. Groen** assumed his current position as the Director, Joint Artificial Intelligence Center on 1 October 2020. As a member of the JAIC team, he leads the transformation of U.S. Joint warfighting and departmental processes through the integration of Artificial Intelligence. Prior to this nomination, General Groen was assigned to the National Security Agency and served as the Deputy Chief of Computer Network Operations, leading this premier Computer Network Exploitation organization. In 2018/2019, he served as the Director for Intelligence, Joint Staff (J2) in direct support of the Chairman of the Joint Chiefs and the Joint Staff. He also served as the Vice J2. Prior to his Joint Staff assignments, General Groen served as the Director of Marine Corps Intelligence (DIRINT) where he championed the redesign of intelligence capabilities into a Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise (MCISRE).

General Groen is a graduate of Calvin College in Grand Rapids, MI with a Bachelor's Degree in Engineering. He has received multiple Master's Degrees from the University of Southern California (Systems Management) and from the Naval Postgraduate School (Electrical Engineering, Applied Physics.) General Groen is a graduate of the Marine Corps Command and Staff College and the Naval War College.

Martial Hebert is a Professor of Robotics and Dean of the School of Computer Science at Carnegie Mellon University. His research interests include computer vision and robotics, especially recognition in images and video data, model building and object recognition from 3D data, and perception for mobile robots and for intelligent vehicles. His group has developed approaches for object recognition and scene

analysis in images, 3D point clouds, and video sequences. In the area of machine perception for robotics, his group has developed techniques for people detection, tracking, and prediction, and for understanding the environment of ground vehicles from sensor data. He currently serves as Editor-in-Chief of the International Journal of Computer Vision. His doctorate in computer science is from the University of Paris.

Gilman Louie is Co-Founder and Partner of Alsop Louie Partners, an early-stage technology venture capital firm founded in 2006 and located in San Francisco. The firm focuses on disruptive and innovative technologies and has made investments in the areas of cyber security, predictive analytics, education, and entertainment. From 1999 until 2006, Mr. Louie was the first CEO of In-Q-Tel, an independent, non-profit venture capital firm established with the backing of the Central Intelligence Agency. Under Mr. Louie's leadership, In-Q-Tel invested in and worked with more than 80 companies that have had a significant impact on national security.

Mr. Louie is Chairman of the Board of the Federation of American Scientists. He has served as a member of the Technical Advisory Group of the United States Senate Select Committee on Intelligence, and as a Commissioner of the National Commission for Review of Research and Development Programs of the United States Intelligence Community. Mr. Louie is a special government employee (SGE) to the Defense Innovation Board where he co-authored the 5G Report and the Software Acquisition and Practices Study. He serves as a commissioner on National Security Commission on Artificial Intelligence. Gilman completed the Advanced Management program/International Seniors Management Program at Harvard Business School and received a Bachelor of Science in Business Administration from San Francisco State University.

Vidya Narayanan recently joined the Oxford Institute for Radiational Oncology as a postdoctoral researcher. She is working on a collaborative project between Oncology and the Oxford Robotics Institute, to develop automated techniques for cancer radiation therapy, using AI and Robotics. She will be working with this multidisciplinary team to re-engineer the radiotherapy planning process for the benefit of cancer patients. Previously, she was a postdoctoral researcher at the Oxford Internet Institute, studying the spread of misinformation over social networks.

Her research interests lie in the interface between technology, ethics and policy, and she is primarily engaged in developing systems that use technology for the greater good of society. She completed her PhD in Computer Science at the University of Southampton, building adaptive techniques for automated negotiations. Prior to this, she completed her M.S. in Industrial Engineering from Pennsylvania State University, working on problems in decentralised decision making, specifically in the defence logistics domain. Her basic background is in Mathematics, which she studied at the Indian Institute of Technology, Madras, and as an undergraduate at the University of Madras. She has also worked as a scientific coordinator at BAE Systems and as a software engineer at Tech Mahindra.

Daniela Rus is the Andrew (1956) and Erna Viterbi Professor of Electrical Engineering and Computer Science, Director of the Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT, and Deputy Dean of Research in the Schwarzman College of Computing at MIT. Rus' research interests are in robotics and artificial intelligence. The key focus of her research is to develop the science and engineering of autonomy. Rus is a Class of 2002 MacArthur Fellow, a fellow of ACM, AAAI and IEEE, a member of the National Academy of Engineering, and of the American Academy of Arts and Sciences. She is a senior visiting fellow at MITRE Corporation. She is the recipient of the Engelberger Award for robotics. She earned her PhD in Computer Science from Cornell University.

Stuart Russell is a Professor of Computer Science at the University of California at Berkeley, holder of the Smith-Zadeh Chair in Engineering, and Director of the Center for Human-Compatible AI. He is a recipient of the IJCAI Computers and Thought Award and held the Chaire Blaise Pascal in Paris. In 2021 he received the OBE from Her Majesty Queen Elizabeth. He is an Honorary Fellow of Wadham College, Oxford, an Andrew Carnegie Fellow, and a Fellow of the American Association for Artificial Intelligence, the Association for Computing Machinery, and the American Association for the Advancement of Science. His book "Artificial Intelligence: A Modern Approach" (with Peter Norvig) is the standard text in AI, used in 1500 universities in 135 countries. His research covers a wide range of topics in artificial intelligence, with a current emphasis on the long-term future of artificial intelligence and its relation to humanity. He has developed a new global seismic monitoring system for the nuclear-test-ban treaty and is currently working to ban lethal autonomous weapons. Stuart Russell received his B.A. with first-class honours in physics from Oxford University in 1982 and his Ph.D. in computer science from Stanford in 1986.

Josephine Wolff is an associate professor of cybersecurity policy and has been associated with The Fletcher School at Tufts University since 2009. Her research interests include international Internet governance, cyber-insurance, security responsibilities and liability of online intermediaries, government-funded programs for cybersecurity education and workforce development, and the legal, political, and economic consequences of cybersecurity incidents. Her book "You'll See This Message When It Is Too Late: The Legal and Economic Aftermath of Cybersecurity Breaches" was published by MIT Press in 2018. Her writing on cybersecurity has also appeared in Slate, The New York Times, The Washington Post, The Atlantic, and Wired. Prior to joining Fletcher, she was an assistant professor of public policy at the Rochester Institute of Technology and a fellow at the New America Cybersecurity Initiative and Harvard's Berkman Klein Center for Internet & Society. She received a Ph.D. in Engineering Systems and M.S. in Technology and Policy from MIT, and an A.B. in mathematics from Princeton. As a student, she also spent time at Microsoft, the Center for Democracy and Technology, the White House Office of Science and Technology Policy, and the Department of Defense.