



MAD SCIENTIST CONFERENCE: LEARNING IN 2050

August 8 & 9, 2018

Georgetown University

Livestreaming at: www.tradoc.army.mil/watch



WEDNESDAY, AUGUST 8

0800-0840

REGISTRATION

0840-0850

ADMIN REMARKS

Mr. Lee Grubbs
Director, Mad Scientist Initiative, G-2, U.S. Army Training and Doctrine Command (TRADOC)

0850-0905

WELCOME REMARKS

Lieutenant General Theodore Martin
Deputy Commanding General / Chief of Staff, U.S. Army TRADOC

MORNING THEME: EMERGING LEARNING TECHNOLOGIES

0905-0950

Dynamic Readiness

Elliott Masie
MASIE Center

0950-1015

NETWORKING BREAK

1015-1030

Remarks

Rebecca Patterson
Associate Director of the Center for Security Studies, Georgetown University

1030-1115

Smart Spaces and Smart People

Andrew Smith Lewis
CEO and Co-founder, Cerego

1115-1200

The Future of Work, and How it's Fueled by Learning

Steve Hatfield
Principal, Future of Work Market Leader, Deloitte Consulting LLP

Amy Titus
Managing Director, Learning Solutions and Career Mobility Leader, Deloitte Consulting, LLP

1200-1300

NETWORKING LUNCH

SENIOR LEADER LUNCH (*by invitation only*; Investing in Breakthrough Technologies for Force Readiness and Resilience, Dr. Brad Ringeisen, Biological Technologies Office, Defense Advanced Research Project Office [DARPA])

AFTERNOON THEME: ACCELERATED LEARNING

1300-1345

The Training Technology Firehose: How to Stay on the Cutting Edge in an Era of Rapid Innovation

Dr. Gregory Goodwin
Senior Research Scientist, U.S. Army Research Laboratory Human Research and Engineering Directorate

1345-1430

Digital Mentors and Tutors

Dr. Dexter Fletcher
Science and Technology Division (STD) Researcher, Institute for Defense Analyses (IDA)

1430-1500

NETWORKING BREAK

1500-1545

The Future Learning Ecosystem for Military Readiness

Dr. Sarah "Sae" Schatz
Director, Advanced Distributed Learning (ADL) Initiative

1545-1630

Targeted Neuroplasticity Training

Dr. Tristan McClure-Begley
Biological Technologies Office, DARPA

1630-1700

CLOSING REMARKS

Dr. Philip Perconti
Director, U.S. Army Research Laboratory

1700-2000

No-Host Social (directly following closing remarks)



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THURSDAY, AUGUST 9

0830-0845

WELCOME REMARKS

Major General John Kem
Commandant, U.S. Army War College

THEME: FUTURE SOLDIER AND LEADER SKILLS

0845-0930

The Future of Learning

Marc Prensky
Founder and Executive Director of The Global Future Education Foundation and Institute

0930-1015

Problem Solving in the Wild

Christopher Taylor
CEO, Govini, and Adjunct Associate Professor, Center for Security Studies (CSS), Georgetown University

1015-1030

NETWORKING BREAK

1030-1115

The Soldier and the Scientist: A Learning Singularity

Dr. Robert E. Smith
Senior Research Scientist, U.S. Army Tank Automotive Research Development and Engineering Center (TARDEC)

1115-1215

PANEL: WARFIGHTER AND THE DIRECTION OF LEARNING

Dr. Kira Hutchinson
Director, Critical Thinking Enterprise, TRADOC, G-2
Moderator

Major General John Kem
Commandant, U.S. Army War College

Ms. Paula Philbin
Psy-Ops Education Program, Naval Postgraduate School

Ms. Helen Remily
Director for The Army Distributed Learning Program

Ms. Mary Crannell
President/Founder, Idea Sciences

1215-1345

NETWORKING LUNCH (1315-1345: Virtual Nations, Marie Murphy, Summer Intern Futures Analyst, Mad Scientist Initiative, The College of William and Mary in Virginia)

1345-1430

Earning to Learning: "How the Jobs of 2050 Will Drive Learning Models of Tomorrow"

Hans Davies
Director, Toffler Associates

1430-1515

The Art of War: Military Sci-Fi Story Telling

Andrew Liptak
Weekend Editor for The Verge and co-editor of War Stories: New Military Science Fiction

1515-1530

NETWORKING BREAK

1530-1615

How AI, Immersion, and Narrative will Drive Future Learning Environments

Dr. Randall W. Hill, Jr.
Executive Director, University of Southern California Institute for Creative Technologies

1615-1630

CLOSING REMARKS

Mr. Thomas Greco
Director of Intelligence, Deputy Chief of Staff, G-2, U.S. Army TRADOC

1630

CONFERENCE ADJOURNS



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LTG Theodore D. Martin

Deputy Commanding General / Chief of Staff
U.S. Army Training and Doctrine Command

Lieutenant General Theodore D. Martin assumed duties as Deputy Commanding General/ Chief of Staff, United States Army Training and Doctrine Command, March 5, 2018.

The Martin family's military heritage harkens back more than ten generations to 1776 when Private Daniel Martin enlisted in the 1st New Jersey Infantry Regiment and fought the British during the American Revolution, including service at Valley Forge. Lieutenant General Martin graduated from the United States Military Academy in 1983 and was commissioned a second lieutenant of Armor. His military education includes the Armor Officer Basic Course (Cavalry Track), the Infantry Officer Advanced Course, the Naval College of Command and Staff, and the Army War College. He holds a Master's Degree in National Security & Strategic Studies from the Naval War College, a Master's Degree in Strategic Studies from the Army War College, and a Master's Degree in Business from Webster University.

His command experience includes Commander, C Company, 2d Battalion, 64th Armor Regiment, 3d Infantry Division, Federal Republic of Germany; Commander, 1st Squadron, 10th U.S. Cavalry Regiment (Buffalo Soldiers), 4th Infantry Division, Fort Hood, Texas and Operation Iraqi Freedom in Iraq; Commander, 1st Heavy Brigade Combat Team, 4th Infantry Division, Fort Hood, Texas and Operation Iraqi Freedom in Iraq; Commander, Operations Group (COG), National Training Center, Fort Irwin, California; Commandant & 45th Chief of Armor, U.S. Army Armor School, Fort Benning, Georgia; the 73rd Commandant of Cadets at the United States Military Academy, West Point, New York; the Commanding General National Training Center & Fort Irwin, California; and the Commanding General 2d Infantry Division (Combined), Republic of Korea.

Beyond command, Lieutenant General Martin has served in a wide variety of staff and leadership assignments including duty in the 1st Armor Training Brigade, Fort Knox, Kentucky; the Combined Arms Command-Training, Fort Leavenworth, Kansas; Advisor to the Imam Mohammed bin Saud Brigade and later the Prince Sa'ad bin Abdul Rahman Brigade, Kingdom of Saudi Arabia; Deputy Chief of Staff, G3, 4th Infantry Division, Fort Hood, Texas and Operation Iraqi Freedom in Iraq; Joint Improvised Explosive Device- Defeat Task Force as the Iraq Field Team Leader, Baghdad, Iraq; and Human Resources Command, Alexandria, Virginia, as Armor Branch Chief and Chief of Combat Arms Division.



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Elliott Masie

President, The MASIE Center
Chair, The Learning CONSORTIUM
Host & Curator, Learning 2018

Elliott Masie is a provocative, engaging and entertaining futurist, analyst and speaker - focused on the changing world of the workplace, learning and technology.

He is the editor of Learning TRENDS by Elliott Masie, an Internet newsletter read by over 57,000 business executives worldwide, and a regular columnist in professional publications, including CLO Magazine. He is the author of a dozen books and is the convener of Learning 2018.

He heads The MASIE Center, a Saratoga Springs, NY think tank focused on how organizations can support learning and knowledge within the workforce. He leads the Learning CONSORTIUM, a coalition of 200 global organizations cooperating on the evolution of learning strategies, including CNN, Walmart, American Express, Walmart, Emirates Airline, General Electric and Fidelity Investments. In addition, Elliott has served as a pro-bono analyst for the Intelligence Community, including over 10 years on the Central Intelligence Agency University Board of Visitors and work with DOD's Readiness Task Forces.

Elliott's professional focus has been in the fields of corporate learning, organizational performance and emerging technology. He has developed models for accelerating the spread of knowledge, learning and collaboration throughout organizations. Elliott is acknowledged as the first analyst to use the term e-Learning and has advocated for a sane deployment of learning and collaboration technology as a means of supporting the effectiveness and profitability of enterprises.

Elliott is known as a highly approachable speaker and trainer, blending humor, applicable stories of best practice and high levels of audience involvement. Over the past thirty years, he has presented programs, courses and speeches to over 2,200,000 professionals around the world. He lives in Saratoga Springs, owns thoroughbred horses, is a producer/investor in Broadway shows including the TONY Award Winning *Kinky Boots*, as well as *An American in Paris*, *SpongeBob The Musical*, *Macbeth*, *Allegiance*, *The Prom* and more.



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Rebecca Patterson

Associate Director of the Center for Security Studies
Georgetown University



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Andrew Smith Lewis

CEO and Co-founder
Cerego

Andrew is one of the original co-inventors of the Cerego Learning Methodology and has several patents in his name. Prior to becoming Executive Chairman of Cerego, in 1989, Andrew founded AGOS Japan (formerly known as The Princeton Review of Japan)—a prep school for Japanese students applying for MBA and graduate courses. He then co-founded Cerego in 2000. He wrote his first book in Japanese “Learn Faster, Remember Longer,” published by Nikkei BP in 2002, and he co-authored “Social Learning Revolution” in 2008 with Eric Young. Andrew heads Cerego’s US operations and runs Cerego’s Advisory Board, which is an international group of experts and practitioners in scientific, technological, and commercial areas directly relevant to the company’s activities.

Andrew was born in New York City in 1967 and studied at the Bronx High School of Science, where he became a Westinghouse Science Talent Search semifinalist. He went onto the University of Virginia where he graduated in 1989. Currently based in Palo Alto, Andrew lived in Japan for 25 years and is fluent in Japanese.

These days he spends equal time improving the product and working with our partners and advisors around the world. asl@cerego.com



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Steve Hatfield

Workforce Transformation Principal,
Future of Work Market Leader
Deloitte Consulting, LLP

Steve is a principal with Deloitte Consulting and a leader in the Organization Transformation practice serving Financial Services clients. He has more than 20 years experience instilling confidence in clients when dealing with issues of Strategy, Innovation, Organization, People, Culture, and Change.

He has advised business leaders in a variety of initiatives including activating Strategy, defining a preferred future, addressing workforce trends, implementing agile and resilient operating models, and transforming culture oriented to growth, innovation, and agility.

Steve has significant experience in Strategy Development, Innovation Capability Building, Executive Meeting Design & Facilitation, Leadership Alignment & Coaching, Organization Assessment & Design, People and Workforce Strategy Development, and Large Scale Change Program Design & Implementation. He draws on deep skills in Facilitation, Design Thinking, Organization Behavior, Group Process, and Culture Enablement to create breakthrough experiences for clients.

He is a regular speaker and author on the Future of Work, and is currently on the Deloitte leadership team shaping the research and marketplace dialogue on future workforce and workplace trends and issues.

Steve has a Masters in Social Change and Development from Johns Hopkins and an MBA from Wharton.



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Amy Titus

Managing Director, Human Capital
Deloitte Consulting, LLP

Amy is a managing director in Human Capital within Deloitte Consulting LLP and is responsible for delivering talent, learning, organization transformation, and change solutions to her clients. She brings considerable industry depth, thought leadership, and international recognition to Deloitte's clients, given her 25 years of global experience. She leads the Government and Public Services Learning Solutions practice. In addition, she is the dean of the Chief Learning Officer Forum and Federal Learning Officers Workshop, both annual events.

Amy serves on several committees including the USIP International Advisory Council and CAIEL (The Council for Adult & Experiential Learning) and is co-lead of Deloitte's Greater Washington Area Volunteer Council and also serves as the RightStep Education Champion. She holds a master's degree in Instructional Systems from the University of Minnesota and a doctorate in Adult Education from Teachers College, Columbia University.



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Dr. Brad Ringeisen

Deputy Director, Biological Technologies Office (BTO)
Defense Advanced Research Projects Agency (DARPA)

Dr. Brad Ringeisen joined DARPA as the Deputy Director of BTO in December 2016. Before coming to DARPA, Dr. Ringeisen was the Head of the Bioenergy and Biofabrication Section at the U.S. Naval Research Laboratory (NRL) where he oversaw diverse research programs including the development and application of laser-assisted printing approaches to biology, development of organs-on-a-chip, microbial energy harvesting and extracellular electron transfer, as well as microbial discovery and microbiome characterization. His personal research focused on using a variety of novel laser-based processing tools to deposit patterns and 3D structures of biological materials including living cells, fixed tissue, solid-phase environmental samples, and biopolymers. He was also the Chief Technology Officer for the Defense Department's Advanced Technology Biofabrication Manufacturing Innovation Institute.

From 2012 to 2014, Dr. Ringeisen was detailed at the Defense Threat Reduction Agency (DTRA) Joint Science and Technology Office as a science and technology manager, where he oversaw the development of field-forward diagnostic technology with wireless connectivity to the cloud.

Dr. Ringeisen is a pioneer in the field of live cell printing, having demonstrated the first living bacteria and mammalian cell printing experiment using modified laser-induced forward transfer (LIFT) technology in the early 2000s. He is a named inventor on thirteen patents, eight involving modifications to LIFT for biological applications. He has published more than 60 peer-reviewed manuscripts and has edited a book on cell and organ printing. Throughout his career he has worked across the Department of Defense (DoD) research enterprise having performed research for the Air Force Office of Scientific Research, the Office of Naval Research, DARPA, and DTRA, in addition to his internal programs at NRL.

Dr. Ringeisen received a Doctor of Philosophy degree in Physical Chemistry from the University of Wisconsin-Madison and a Bachelor of Science degree in Chemistry from Wake Forest University. He was named the DoD Lab Scientist of the Quarter in December 2015 for his achievements in applying bioprinting to the fields of tissue engineering and microbial ecology.



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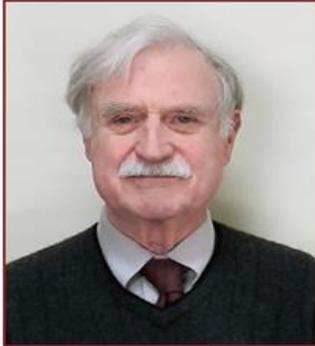
Dr. Gregory Goodwin

Senior Research Scientist,
U.S. Army Research Laboratory Human Research and
Engineering Directorate

Gregory A. Goodwin, Ph.D. is a Senior Research Scientist at the Paul Ray Smith Simulation and Training Technology Center in Orlando, FL. Dr. Goodwin earned his Ph.D. in Psychology from Binghamton University with a focus on developmental biopsychology. He completed a post-doctoral fellowship at Columbia University College of Physicians and Surgeons and then worked as a research associate at Duke University before joining the faculty at Skidmore College. He left Skidmore in 2005 to join the Army Research Institute and later the Army Research Laboratory. For the last 13 years, he has been researching ways to use technology to improve training efficiency and effectiveness for the Army.



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Dexter Fletcher

Science and Technology Division (STD) Researcher,
Institute for Defense Analyses (IDA).

Dr. Fletcher received his PhD in educational psychology from Stanford University. Prior to joining IDA in 1986, Dr. Fletcher taught at the Universities of Illinois and Oregon, and held positions at the Navy Personnel Research and Development Center, DARPA, and the Army Research Institute.

IDA projects conducted by Dr. Fletcher, in combination with STD's John Morrison in one case. The IDA analyses focused on the DARPA-developed Digital Tutor for training Navy electronics technicians. They found the DARPA system to be far more effective relative to Navy schoolhouse instruction than the median gain from the 50 diverse applications cited in the journal article.



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Dr. Sarah “Sae” Schatz

Director,
Advanced Distributed Learning (ADL) Initiative

As director of the ADL Initiative, Schatz plans to emphasize advocacy for learning science, demonstration of the “art of the possible” involving learning technologies, and wide-ranging collaboration with ADL stakeholders. She also expressed a passion for the work ADL performs. “Globalization, social media, ever-increasing computing power, and the proliferation of low-cost advanced technologies have created a level of complexity and rapid change never before seen. Success requires reflection and creativity, the adaptability to notice and react quickly to evolving conditions, and a strategic understanding of the far-reaching effects of actions taken,” she explained. “Learning science and technologies can help foster outcomes such as critical thinking, emotional intelligence, and more efficient and agile pathways to expertise. The methods and tools developed by ADL and our partners in government, industry, and academia are essential to achieving this vision.”

Prior to joining the ADL Initiative, Schatz was a senior consultant with Executive Development Associates, and before that she was the chief scientist for MESH Solutions, LLC (a DSCI Company) in Orlando, Florida. She has worked on a number of well-known projects including the Marine Corps’ “Making Good Instructors Great” effort, the NTSA award-winning Border Hunter research and instructional design project, and the Joint Staff’s (J7) Blended Learning–Training System.

Schatz received her Ph.D. in Modeling and Simulation from the University of Central Florida in 2008. She served on the UCF faculty from 2006–2011, teaching courses in human-systems integration, visual and web design, and web development, and continues to support the Modeling and Simulation graduate program as an occasional adjunct instructor.



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Dr. Tristan McClure-Begley

Biological Technologies Office (BTO)
Defense Advanced Research Projects Agency (DARPA)

Dr. Tristan McClure-Begley joined DARPA as a Program Manager in October 2017. His scientific pursuits at the agency involve novel chemical biology approaches to treating disease and injury, and developing methods to accelerate and protect learning and executive functions.

Dr. McClure-Begley came to DARPA from the University of Colorado, Boulder, where he was a Research Assistant Professor in the Department of Molecular, Cellular and Developmental Biology. His academic studies focused on molecular mechanisms of perturbations to complex biological systems, particularly drugs of abuse, toxins and neurodevelopmental disorders. Prior to his faculty appointment at CU, Dr. McClure-Begley was a postdoctoral fellow in the Department of Psychiatry at the Yale University School of Medicine, and an alumnus of the Yale/NIDA Neuroproteomics Center.

He received his Doctor of Philosophy degree in Integrative Physiology and a Graduate Certificate in Behavioral Genetics from the University of Colorado, Boulder.



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Dr. Phil Perconti

Director,
U.S. Army Research Laboratory

Dr. Philip Perconti is a member of the Senior Executive Service and serves as the Director of the U.S. Army Research Laboratory (ARL), the Army's premier laboratory for basic and applied research and analysis. ARL conducts research and analysis in weapons and materials, sensors and electron devices, computational and information sciences, human research and engineering, vehicle technology, and survivability and lethality analysis. ARL's Army Research Office executes the Army extramural basic research program in scientific and engineering disciplines. The Laboratory consists of approximately 2,000 civilian and military employees with an annual budget of over \$1 billion.

Prior to this, Dr. Perconti served as the Director of the Sensors & Electron Devices Directorate of the ARL. He was responsible for leading and transitioning the Army's primary basic and applied research programs in sensors, electronics, sensor information processing, and power and energy technologies. In addition, he led ARL's S&T campaign for Materials Research. His duties included operation of unique electronics and photonics materials fabrication and characterization facilities that enable world-class, Army-relevant, component research and development. He was also responsible for planning, executing and balancing mission and customer program needs to ensure science and technology dominance for the Army.

CAREER CHRONOLOGY:

- June 2017 – Present, Director, U.S. Army Research Laboratory
- Apr 2016 – June 2017, Acting Director, U.S. Army Research Laboratory
- Feb 2013 – Apr 2016, Director, Sensors and Electron Devices Directorate, U.S. Army Research Laboratory
- Jan 2000 – Jan 2013, Director, Science and Technology Division, U.S. Army CERDEC Night Vision and Electronic Sensors Directorate (NVESD)
- Apr 1996 – Jan 2000, Director, Electronics & Photonics Technology Office, National Institute of Standards & Technology (NIST)
- May 1990 – Apr 1996, Branch Chief, Imaging Technology, U.S. Army CERDEC Night Vision and Electronic Sensors Directorate (NVESD)

COLLEGE:

- D.Sc., Electrical & Computer Engineering, The George Washington University
- M.S., Electrical & Computer Engineering, Johns Hopkins University
- B.S., Electrical & Computer Engineering, George Mason University

AWARDS AND HONORS:

- Fellow of the Military Sensing Symposium (MSS)
- U.S. Army Achievement Medal for Civilian Service
- HKN- Electrical Engineering Honor Society

PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS:

- Steering Group – OSD Community of Interest for Advanced Electronics
- Chairman, Military Sensing Symposium, Passive Sensors Committee
- The Technical Cooperative Program Sensors- Multi-Sensor Integration Panel
- Institute of Electrical and Electronics Engineers

MAJOR PUBLICATIONS:

- Dr. Perconti has published extensively on many aspects of military sensing and countermine/counter IED technology. He has authored and co-authored over 50 publications, including three book chapters. He holds two patents.



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MG John S. Kem

Commandant,
U.S. Army War College

MG Kem was commissioned in 1985 through the United States Military Academy as a distinguished cadet earning a bachelor's degree in Civil Engineering. He later earned a Master's of Science in Environmental Engineering and a Masters of Business Administration (Kellogg Business School) from Northwestern University. His military education includes the Engineer Officer Basic/Advanced Course, the Army Command and General Staff College, and the Industrial College of the Armed Forces where he earned a Master's of Science in National Resource Management. He is a registered Professional Engineer in Virginia and a Chartered Financial Analyst.

Most recently, MG Kem served as the first Provost of the Army University and Deputy Commandant of the Command and General Staff College (CGSC). MG Kem's previous command assignments include the Commanding General United States Army Corps of Engineers Northwestern Division in Portland, OR from 2013 to 2015; the Europe District, North Atlantic Division, U.S. Army Corps of Engineers from 2008 to 2011; the 16th Engineer Battalion, 1st Armored Division, Germany, and Operation Iraqi Freedom, from 2003 to 2005, and Company A, 307th Engineer Battalion, 82nd Airborne Division, Fort Bragg, NC, from 1991 to 1992.

Previous assignments include serving as Chief, Programs Division, Office of the Chief, Legislative Liaison, Washington; Director, Coalition-Joint Engineering Directorate, NATO Training Mission-Afghanistan; Executive Officer to the Director Joint Improved Explosive Device Defeat Organization, Washington; Military Assistant to the Secretary of the Army, Washington; Congressional Fellow, Washington D.C.; Operations Officer, 10th Engineer Battalion and Operations Officer, 3rd Engineer Brigade, Fort Stewart, GA; and Assistant Professor, Department of Social Sciences, USMA. As a junior officer he served 307th Engineer Battalion, 82nd Airborne Division during Operation Desert Shield/Desert Storm; as a LT in the 16th Engineer Battalion, 1st Armored Division, West Germany, and Boeselager Reconnaissance Platoon Leader, 1st Squadron, 1st Cavalry Regiment, 1st Armored Division.



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Mark Prensky

Founder & Executive Director,
Global Future Education

Marc Prensky is an award-winning, internationally-acclaimed speaker, author, and “practical visionary” in the field of education. He is the founder and executive director of The Global Future Education Foundation.

Marc has spoken in over 40 countries, authored seven books, and published over 100 essays; his writing has been translated into 11 languages. Marc’s latest book, *Education to Better Their World: Unleashing the Power of 21st Century Kids* (Columbia TC Press, 2016), won the FORWARD INDIES 2016 Book of the Year Award Gold Prize for Education.



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Christopher Taylor

CEO, Govini

Adjunct Associate Professor
Center for Security Studies (CSS)
Georgetown University

Chris Taylor is a three-time defense industry CEO and entrepreneur and is currently the CEO of Govini, a big data and analytics firm transforming the business of government through data science. He also founded a tech startup that used a unique talent-opportunity matching technology platform to assist veterans in their search for meaningful employment in the communities of their choice. He conceived of and convinced The White House and ABC's Shark Tank to collaborate on an all-veteran episode – which aired on Veteran's Day 2014. For his work, he was named as one of, "HillVets' 100 of 2014" most influential veterans in America. Previously, as the CEO of a large government services firm, Chris was named one of, "15 to Watch in 2012" by GovCon Executive magazine along with fellow CEOs. Chris is also an adjunct associate professor of national security studies at Georgetown's School of Foreign Service Security Studies Program, where he teaches, "The Business of National Security" and "Hacking for Defense."

Chris spent 14 years in the U. S. Marine Corps as an enlisted infantryman and Force Recon Marine. Twice selected for meritorious promotion, he was the Distinguished Honor Graduate at the NCO Leadership Academy, the Distinguished Leadership Graduate at Amphibious Reconnaissance School, and the Class Commander at Marine Combatant Diver Course 93-40.

Chris finished his undergraduate degree at night and left the Marine Corps to attend the College of William & Mary where he earned his MBA in in Strategy & Leadership in 2002, and received the Dean's Award for Leadership and Service at graduation. He is also a 2008 graduate of the Harvard Kennedy School, where he earned a Master of Public Administration degree in Political Economy and International Security, and was elected by his class to lead them into Harvard Yard for graduation. Chris also served as the Director of the Harvard Defense & Security Initiative and as a member of the Defense Leadership Project at Harvard's Center for Public Leadership where he co-authored, Transforming the National Security Culture.

Chris speaks frequently at professional and academic forums, and has testified before Congress and the Commission on Wartime Contracting on private sector contributions to national security. He has appeared on MSNBC and CNN offering commentary on global security challenges. Chris is the former Chairman of the International Stability Operations Association and a member of Business Executives for National Security. He has attended Harvard University's Program for Senior Executives in National and International Security and the Aspen Institute's Executive Seminar and the Justice and Society Seminar. Chris is a member of the Board of Trustees of the American University of Afghanistan, the Council on Foreign Relations, and the Atlantic Council.



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Dr. Robert E. Smith

Research Engineer,
U.S. Army Tank Automotive Development and Engineering
Center (TARDEC)

Dr. Smith works in the Modeling and Simulation Group (Analytics) where he has been since 2008. He has over 15 years of experience in computer-aided engineering including computational fluids dynamics (CFD) and low observables analyses. His career experience includes time at DARPA, Ford Motor Company, Whirlpool Corporation, ThermoAnalytics, and General Dynamics Land Systems. He holds a PhD in Mechanical Engineering with a focus on machine learning from Michigan Technological University.



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Kira Danielle Hutchinson, Ph.D.

Director, Critical Thinking Enterprise (CTE)
U.S. Army, TRADOC G-2

Dr. Kira Hutchinson received her BS in Chemistry (with Honors) from the University of Michigan, Ann Arbor, in 1986 and her Ph.D. in Synthetic Organic Chemistry at the University of California, Irvine in 1990.

Dr. Hutchinson is the Director of the Critical Thinking Enterprise (CTE) for the US Army Training and Doctrine Command. As the Army Lead, TRADOC G-2 provides relevant Operational Environments and tools to decision-makers. The CTE reviews and refreshes our understanding of the Operational Environment, trains leaders on critical thinking, and provides outreach for the G-2 to Academia and Industry. Dr. Hutchinson leads the “Learning In A New Era” (LIANE) initiative as well as the Electronic Intern Initiative.



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Paula J. Philbin

Psy-Ops Education Program
Naval Postgraduate School

Paula entered government service in June 2000 by way of a management fellowship program. Her rotational assignments included: USMC Systems Command, Quantico, VA, (June-November 2000); Assistant Secretary of the Navy, (Financial Management & Comptroller), Office of Budget Policy & Procedures (December 2000-May 2001); Navy Comptroller (June-October 2001); & the Operations & Personnel Directorate of the Office of the Under Secretary of Defense (Comptroller) (October 2001-March 2002).

In April 2002, Paula was detailed to the White House Office of Homeland Security, where she served as Assistant Director of Policy & Plans for Governor Tom Ridge. She was part of the 8-member team that developed the background proposal for the Department of Homeland Security, wrote the President's National Strategy for Homeland Security, and provided support to the White House Legislative Affairs and Communications offices during the Congressional debate on H.R. 5005. In October 2002, she moved to the Transition Planning Office of the Department of Homeland Security Science & Technology Directorate.

Paula next served as a Professional Staff Member on the U.S. Senate Armed Services Committee from March 2003-December 2005, where she oversaw the Combatting Terrorism, Homeland Defense, Chemical-Biological Defense, Chemical Demilitarization, and Information Assurance portfolios.

Paula has been an assistant professor at Campbell University, (Buies Creek, NC) and Mount Wachusett College (University of Massachusetts system-Gardner, MA). In both positions she taught at off-site locations (Ft. Bragg, NC and Ft. Devens, MA respectively) in programs specifically tailored to meet the needs of US Army Special Forces, Delta Force, Military Intelligence, Civil Affairs and Psychological Operations MOSs. Among the courses she developed and taught were Historical Perspectives on Political Terrorism, Revolutions in the 20th Century, War and Peace in the Nuclear Age and the History of Warfare. She also taught courses in 20th Century Middle East History, and America and the Middle East as well as several courses on various topics in 20th Century Russian History. She has taught at the University of Texas-San Antonio as well as on the high school level in Massachusetts.

Paula earned graduate and undergraduate degrees in Russian History and History, respectively, from Worcester State University, Worcester, MA. She has done additional graduate work at the University of Hawaii (Soviet Studies and Military History), Harvard University (Political Philosophy and international Relations), The American University at Cairo (Islamic history) and the Hebrew University of Jerusalem (American Foreign Policy in the Middle East.). She has also completed coursework in an approved plan of study for a Ph.D in American Foreign Policy and Middle East Studies.

She has been a recipient of a Fulbright Fellowship (to Egypt), a National Endowment for the Humanities grant (to Harvard University) and was a Dorot Fellow (Institute for the Study of Contemporary Jewry) and a Truman Fellow (The Harry S Truman Institute for the Advancement of Peace) at the Hebrew University of Jerusalem.



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Helen A. Remily

Director,
The Army Distributed Learning Program

Ms. Helen A. Remily has worked for the Department of the Army for over thirty-five years in a wide variety of assignments to include Office of the Deputy Chief of Staff for Intelligence, Headquarters, Department of the Army and Joint Task Force-Five. She also held assignments as an instructor for Intelligence Analysis, Intelligence in Combating Terrorism Counteraction, Counterdrug programs, and held the position of Senior Army Representative for the DoD Strategic Debriefing Training Division. Ms. Remily developed new staff and faculty curriculum, designed resident and distributed learning programs of instruction, and analyzed the efficacy of education and training products and programs for the United States Military Intelligence (MI) Community.

Ms. Remily was appointed as the Director for The Army Distributed Learning Program (TADLP) in December 2009. As the director, her duties include program oversight and integration of DL governance, plans, and policy. Prior to this appointment, Ms. Remily served as the Director for Education and Training, Army Training Support Center, Training and Doctrine Command (TRADOC), Fort Eustis, VA from June 2008 through November 2009. Her main focus was supporting Army proponent centers and schools with staff and faculty development and distributed learning strategies and production.

Ms. Remily's previous assignment was as Chief, Training Development and Integration, U.S. Army Military Intelligence Center. As such, she led the integration of individual and collective training products, based on adaptive learning techniques, across the MI community. Her expertise in education resulted in the seamless development and integration of cultural awareness and contemporary operating environment curriculum within programs of instruction at the Army's Intelligence Center. This initiative led to TRADOC's recognition of the Intelligence Center as the focal point for cultural awareness education and training development for all proponent schools. Ms. Remily's efforts resulted in securing senior-level support and resources to establish the University of Military Intelligence, a web-based learning environment for MI DL products. She also secured resourcing through the Army Studies Program in support of an intelligent tutoring system for mission analysis, which immersed the learner in a 3-D environment melding intelligent tutoring techniques and collaborative learning tools with constructive learning theory to improve critical thinking and problem solving skills.

Ms. Remily is greatly involved in Army education and training. She co-authored and presented several papers on learning and education technology, one of which was nominated as best paper out of 200 during the Interservice, Industry, Simulation, and Education Conference.

Ms. Remily is a member of the Association for Educational Communications and Technology, American Society for Training Development in Higher Education, and alumni member of the Gamma Beta Phi Honor Society. She graduated summa cum laude with a Master of Arts degree in Educational Psychology with an emphasis on technology from the University of Arizona. Ms. Remily also holds a Bachelor of Science Degree in Criminal Justice and a Certificate in Public Leadership from the Brookings Institute. She is a graduate of the DoD Executive Leadership Development Program, the Federal Executive Institute, and is a Harvard Senior Executive Fellow.



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Mary Crannell

President and Founder,
Idea Sciences

Ms. Mary Crannell is president and founder of Idea Sciences, a sixteen-year-old company that helps leaders map strategy, leverage talent and transform organizational culture. Mary's organizational systems background coupled with her global work experience provide a robust backdrop for creating human and information systems that support the strategic goals of an organization. Idea Sciences offers "decision assurance" to enterprises -- government, non-governmental organizations, and commercial. Ms. Crannell serves as the Vice Chair on the Arlington County Information Technology Advisory Commission (ITAC) and is a member of the Kogod School of Business, Information Technology Executive Council, American University. In addition, she serves on the U.S. Army Science Board. Ms. Crannell is an adjunct professor at The George Washington University, and holds a M.A.T. from Colgate University and a B.A. from Eisenhower College of Rochester Institute of Technology



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Marie Murphy

Summer Intern / Futures Analyst,
Mad Scientist Initiative

Marie Murphy is a rising junior at The College of William and Mary in Virginia, studying International Relations and Arabic. She is currently interning at Headquarters, U.S. Army Training and Doctrine Command (TRADOC) with the Mad Scientist Initiative, where she analyzed the future operational environment for the U.S. Army, focusing on deep future changes and developments. Ms. Murphy researched and wrote two blog posts for Mad Scientist's online lab; collaborated with Mad Scientist teammates to produce reports, documents, and information papers; and supported pre-event activities, execution, and post-event analysis and documentation for two Mad Scientist conference events.



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Hans Davies

Director,
Toffler Associates

Hans Davies advises senior government officials and Fortune 500 business leaders on strategic planning, risk management, and innovation policy as they transform their organizations to thrive in the Information Age. He brings almost 20 years of experience in areas, such as global innovation, future human capital planning, geopolitics and risk and he is sought after as a consultant and executive facilitator. Hans regularly presents to executive audiences on the future of security, critical infrastructure and risk, building adaptive leadership models, and developing an innovative culture. His clients have included companies in the hospitality and travel, aerospace, and security and protection industries. Prior to joining Toffler Associates, Hans worked at SAIC, supporting arms control and complex operations initiatives for the Department of Defense. He has served as a Congressional staff member, worked at the Department of State, and was a Robert Bosch Foundation Fellow in Germany. Hans earned a B.A. with honors in History from Williams College and an M.A. in International Relations and International Economics from Johns Hopkins University.



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Andrew Liptak

Writer and Historian

Andrew Liptak is a writer and historian from Vermont. He is the Weekend Editor for The Verge, and his work has appeared in Armchair General Magazine, Clarksword Magazine, io9, Kirkus Reviews, Lightspeed Magazine, Seven Days, Tor.com, VentureBeat, and other publications. His essay, "The Battle of Hoth: A Critical Analysis", can be found in Strategy Strikes Back: How Star Wars Explains Modern Military Conflict. (2018, Potomac Books)

His first short story, "Fragmented", first appeared in Galaxy's Edge Magazine in May 2014 (reprinted at The Art of Future War Project in 2015). In 2014, he published his first anthology (co-edited with Jaym Gates), War Stories: New Military Science Fiction.

He graduated in 2007 from Norwich University with a bachelor's degree in History, and in 2009 with a master's degree in Military History and is a 2014 attendee of the Launch Pad Astronomy Workshop.



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Dr. Randall W. Hill, Jr.

Executive Director,
University of Southern California Institute for Creative Technologies

Randall W. Hill, Jr. is the executive director of the University of Southern California's Institute for Creative Technologies. Located in Los Angeles, ICT is a University Affiliated Research Center sponsored by the United States Army. The mission of the ICT is to perform research on immersive technologies and apply them to training, education and therapy. Hill steers the institute's exploration of how virtual humans, mixed reality worlds, advanced computer graphics, dramatic films, social simulations and educational videogames can augment more traditional methods for imparting lessons.

Hill is a full research professor in the Computer Science department at the USC Viterbi School of Engineering. He has over seventy publications in journals, conferences and books on topics related to his research in artificial intelligence, intelligent tutoring, and virtual humans.

After graduating with a Bachelor of Science degree from the United States Military Academy at West Point, he served six years in the U.S. Army and subsequently joined the technical staff of the Jet Propulsion Laboratory. He earned his Ph.D. degree in computer science from the University of Southern California in 1993.



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Thomas F. Greco

Director of Intelligence, Deputy Chief of Staff, G-2,
U.S. Army Training and Doctrine Command

Mr. Thomas F. Greco serves as the Director of Intelligence, Deputy Chief of Staff, G-2 for the U.S. Army Training and Doctrine Command (TRADOC G-2). This is a Tier Two Defense Intelligence Senior Executive Service (DISES) position. He is the Army's lead for developing, defining, and applying current and future threats and environments in support of Army leader development, concept development, capability design, training readiness, and experimentation. He also leads the Army's enterprises for Critical Thinking, Mad Scientist Initiative, University of Foreign Military & Cultural Studies, Foreign Military Studies Office, Global Cultural Knowledge Network, and the Operational Environment Center. TRADOC G-2 supports the Army's Combat Training Centers, deployed forces, all of the Army's educational institutions and capability development activities.

Prior to his assignment as TRADOC's G-2, Mr. Greco served as the Special Assistant for Intelligence to the Commanding General and G-2 of U.S. Army Europe from 2004 to 2011 where he spearheaded the intelligence efforts of a forward deployed theater Army headquarters. Notably, from 2007 to 2008, Mr. Greco deployed to Iraq where he served as the Assistant CJ2 in Iraq, ensuring intelligence support to the entire Combined Joint Task Force during the highly successful Sunni Awakening that changed the course of the war there.

Before entering Civil Service, Mr. Greco served 22 years on active duty as an Army intelligence officer in a variety of important command and staff positions. Highlights include one year as the G-2 of Task Force Eagle in Bosnia where he provided multi-disciplined intelligence support to high visibility peace enforcement operations in the Balkans and as the G-2 of Task Force Falcon in Kosovo. He also spent time as the Military Advisor to the START and Defense and Space negotiations in Geneva, Switzerland. In addition, he commanded units in the 10th Mountain Division and served in other key intelligence positions throughout the Army.

Mr. Greco holds a Bachelor of Arts degree (with honors) from Hunter College, City University of New York, a Master of Military Arts and Sciences from the U.S. Army Command and Staff College, and a Master of Military Arts and Sciences from the School of Advanced Military Studies (SAMS). He attended the Intelligence Senior Fellows Program and is a graduate of the Executive Leadership Excellence Program run by the Kellogg School of Management, Northwestern University.

Mr. Greco has received numerous awards and honors throughout his career. In 2016, Mr. Greco was awarded the Presidential Rank Award, Meritorious Rank, Defense Intelligence Senior Executive Services. As a civil servant Mr. Greco received the Civilian Meritorious Service Medal, the Superior Service Medal and the Commander's Award for Civilian Service. As a military officer, he was awarded the Legion of Merit and multiple awards of the Defense and Army Meritorious Service Medals. He also received the George C. Marshall Award ("The White Briefcase") as the Distinguished Honor Graduate from the U.S. Army Command and General Staff College.