

CURRICULUM VITAE

NANCY J. COOKE

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Arizona State University

Human Systems Engineering

Ira A. Fulton Schools of Engineering

The Polytechnic School

Santa Catalina Hall 150B

7271 E. Sonoran Arroyo Mall

Mesa, AZ 85212

EDUCATION

Ph.D., Cognitive Psychology, 1987, New Mexico State University, Las Cruces, NM

M.A., Experimental Psychology, 1983, New Mexico State University, Las Cruces, NM

B.A., Psychology, 1981, George Mason University, Fairfax, VA

PRIMARY PROFESSIONAL POSITIONS

- 2003-present Professor, Human Systems Engineering, The Polytechnic School, Ira A. Fulton Schools of Engineering, Arizona State University
- 2024-present Senior Scientific Advisor, Center for Human, Artificial Intelligence and Robot Teaming (CHART)
- 2017-2023 Director, Center for Human, Artificial Intelligence and Robot Teaming (CHART)
- 2021-present ASU Grand Challenge Scholars Program Faculty
- 2011-2020 Graduate Program Chair, Human Systems Engineering, The Polytechnic School, Ira A. Fulton Schools of Engineering, Arizona State University
- 2014-2016 Program Chair, Human Systems Engineering, The Polytechnic School, Ira A. Fulton Schools of Engineering, Arizona State University
- 2003-2020 Science Director and board member, Cognitive Engineering Research Institute, Mesa, AZ
- 1992-2002 Assistant/Associate ('94)/Full Professor ('99), Department of Psychology, New Mexico State University, Las Cruces, NM.
- 1987-1992 Assistant Professor, Department of Psychology, Rice University, Houston, TX.
- 1981-1987 Graduate Research Assistant, Department of Psychology and Computing Research Laboratory, New Mexico State University, Las Cruces, NM. (Roger Schvaneveldt, advisor)

OTHER PROFESSIONAL POSITIONS

- 2021 Member, National Academies of Sciences, Engineering, and Medicine, Committee on Human-Systems Integration Research Topics for the 711th Human Performance Wing of the Air Force Research Laboratory.
- 2021-2023 Member, National Academies of Sciences, Engineering, and Medicine study Committee on Risk Analysis for Nuclear War and Nuclear Terrorism.
- 2017-2018 Series Editor (with E. Salas) for Morgan-Claypool Synthesis/HFES Lectures on Human factors and Ergonomics.
- 2017-2020 President (elect, current, past), Polytechnic campus, Arizona State University
- 2017-2018 Member, National Academies of Sciences, Engineering, and Medicine Committee on High-Performance Bolting Technology for Offshore Oil and Natural Gas Operations
- 2017-2019 Member, National Academies of Sciences, Engineering, and Medicine Committee on Decadal Survey of Social and Behavioral Sciences and Applications to National Security

2016-2017 Co-director, Advanced Distributed Learning Partnership Lab within the Institute for the Science of Teaching and Learning

2016-present National Associate of the National Academies of Sciences, Engineering, and Medicine

2015-2018 President Elect, President, Past President, Human Factors and Ergonomics Society (President in 2016-2017)

2015-present Participant, National Academies, Intelligence Science and Technology Experts Group

2014-present Associate Editor, *Human Factors*

2014-present Chair, William C. Howell Young Investigator Award for HFES

2013-2015 Chair, National Academies Committee on the Science of Team Science

2013-2015 Member, Human Factors and Ergonomics Society Blue Ribbon Task Force

2010-2014 Member, National Research Council, Panel on Human Factors Science at the ARL

2010-2013 Cognitive Track Editor, *Human Factors*

2011-2015 *Human Factors* Prize Board of Referees (chair 2011-2013)

2008-present Affiliate Professor, Biomedical Informatics Arizona State University

2007-2016 Member (Chair 2012-2016), National Academies of Sciences National Research Council Board on Human Systems Integration (prior to 2010, Committee on Human Systems Integration)

2007-2013 Human Factors and Ergonomics Society, Executive Council Member-at-Large (Accreditation Taskforce chair and Federal Spending Taskforce chair)

2008-2012 Member, US Air Force Scientific Advisory Board

2011-2012 Advisory Board, Center for the Evaluation of Human Factors in Reprocessing Safety (CEHFERS), VISN 18 Patient Safety Center of Inquiry (PSCI), Phoenix VA Healthcare System

2005-2009 Editor, *Human Factors*

2003-2004 National Research Council Research Associateship, AFRL, Mesa, AZ

1992 Summer Faculty, Armstrong Lab, Brooks AFB, San Antonio, TX.

1987-1992 Research Consultant, Lockheed Engineering and Sciences Corp. and NASA Johnson Space Center, Houston, TX.

PROFESSIONAL ACTIVITIES

Member of

American Psychological Association (Fellow since 2009)

Association for Psychological Science (Fellow since 2017)

Cognitive Science Society

International Ergonomics Association (Fellow since 2017)

Human Factors and Ergonomics Society (Fellow since 2000)

Fellow Selection Committee (2006 – 2009)

HFES Cognitive Engineering and Decision Making Technical group (program chair 2001-02)

Editorial Boards

American Psychologist (2021-2023)

Erlbaum Series - *Expertise: Research and Applications*

JAI Press Series - *Advances in Human Performance and Cognitive Engineering Research*

Recent Consulting

Center for Operational Performance, Intelligent Automation, Inc.

Honors and Awards

Appointed to National Academies of Sciences National Research Council Committee on Human Systems Integration (now Board on Human Systems Integration, January 2007 – 2016)

Elected Fellow of the American Psychological Association (2009)

Appointed to the National Academies of Sciences Panel on Human Factors Science at the ARL (2010)

Appointed Chair National Academies of Sciences National Research Council Board on Human Systems Integration (January 2012 - 2016)

Recipient of the 2006 Human Factors and Ergonomics Society's O. Keith Hansen Outreach Award

Appointed to National Academies of Sciences National Research Council Committee on Human-

System Design Support for Changing Technology (May 2005 – March 2007)
 Appointed to National Academies of Sciences National Research Council Committee on the Safety and Security of Spent Nuclear Fuel Storage (March 2004 – January 2005)
 Elected Fellow of the Human Factors and Ergonomics Society in 2000
 On short list for AFRL Chief Technologist position (2011)
 Recipient of Jerome H. Ely Award for the most outstanding article in the *Human Factors* journal in 2010. Gorman, Cooke, & Amazeen, “Training Adaptive Teams” (2010)
 Medal for exemplary service to the Department of the Air Force for Scientific Advisory Board work (2008-2012)
 Received the George Mason University Psychology Department’s Distinguished Alumna Award (2012)
 Recipient of the Human Factors and Ergonomics Society’s Arnold M. Small President’s Distinguished Service Award that recognizes individuals whose career-long contributions have brought honor to the profession and the Society (2014)
 ASU SUN Award for participation in OKED’s Funding Success Skills Series (fs3)
 Selected “Star” by NMSU Psychology Department for “A Starry Night” program on February 7, 2015
 Salute to Service Award, Arizona State University (2015)
 Appointed to The National Academies of Sciences, Engineering, and Medicine new Intelligence Science and Technology Experts Group (ISTEG), 2015- present
 FAI Air Sport Medal for efforts on the Two Eagles flight (2016)
 Designated a National Associate of the National Research Council of the National Academies of Sciences, Engineering, and Medicine (2016)
 Ira A. Fulton School of Engineering Exemplar Faculty (2016-2018)
 Appointed to The National Academies of Sciences, Engineering, and Medicine study committee on Connector Reliability for Offshore Oil and natural gas Operations (2017-2018)
 Appointed to The National Academies of Sciences, Engineering, and Medicine study committee on Social and Behavioral Sciences for National Security: A Decadal Survey, 2017-2019
 Elected Fellow of the Association for Psychological Science (2017)
 Elected Fellow of the International Ergonomics Association (2017)
 Appointed by DARPA to the Information Science and Technology (ISAT) Study Group (2020-2023)
 Appointed to The National Academies of Sciences, Engineering, and Medicine study Committee on Risk Analysis for Nuclear War and Nuclear Terrorism. (2021-2022).
 Appointed to The National Academies of Sciences, Engineering, and Medicine Committee on Human-Systems Integration Research Topics for the 711th Human Performance Wing of the Air Force Research Laboratory and Workshop on Human-AI Teaming. (2021)
 Selected as an HFES Titan to speak at the Spring 2022 Virtual Symposium
 Recipient of 2023 APA Division 21's prestigious [Franklin V. Taylor Award for Outstanding Contributions in the Field of Applied Experimental / Engineering Psychology](#), which recognizes outstanding achievements made by a psychologist in the field of Applied Experimental and Engineering Psychology.

Review Panels

Senior Program Committee for the American Psychological Association’s conference on *Technology, Mind, and Society* (2017, 2021)
 National Science Foundation, Information Technology Research (ITR) Program review panel (June 2005)
 Ad Hoc reviewer for Air Force Office of Scientific Research
 Invited by University of North Dakota President, Robert O. Kelley, to participate in a program review of Unmanned Aerial System research at the University of North Dakota (1/18/12-1/19/12)
 PhD Program Reviewer, Wright State University, Human factors and Industrial/Organizational

Psychology (3/14/13)
 USAF Scientific Advisory Board Consultant for Review of AFRL-RH (November 2013)
 Board of Referees, *Human Factors Prize* (2014)
 National Academies of Sciences, Engineering, and Medicine, Reviewer for Review of Army
 Research Lab report (2016)
 Review panel for National Academies Board on Human Systems Integration (2019)

Arizona State University Committees

Ad hoc P&T committee for expedited review (2023-)
 Search Committee: Director of School of Applied Professional Studies (2023-)
 FSE Research Advisory Council (2022-)
 Ad hoc P&T committees for MSN (2022-)
 Dean's Executive Council (2002-)
 Chair, Human Systems Engineering Search Committee (2021-2022)
 Senate Ombudsperson (2020-2023)
 Chair, The Polytechnic School Director Search Committee (2018-2019)
 Autonomous Systems - Human Systems Engineering Search Committee (2017-2018)
 Dean's Executive Committee (2017-2019)
 President, Polytechnic Campus Academic Assembly (2017-2020)
 Dean of CLAS Humanities Search Committee (2016-2017)
 Aviation Human Factors Search Committee Chair (2016-2017)
 Human Systems Engineering Search Committee (2015-2016)
 Dean's Faculty Advisory Committee (2015-2016)
 IAFSE Dean Search Committee (2015-2016)
 Personnel Committee, The Polytechnic School, Ira A. Fulton Schools of Engineering (2014-2015)
 Fulton Associate Dean of Research Search Committee (2014)
 Fulton School 6 Director Search Committee (2014)
 University Librarian Search Committee (2014)
 College P&T Committee (2014-2016)
 University Research and Creative Activities Committee member (2013-2015)
 Data Archiving Taskforce of University RCA (2013-2014)
 Advisor, Student Chapter of the Human Factors and Ergonomics Society (2012-present)
 Graduate Council Representative, CTI Executive Committee (Fall 2010-2012)
 Graduate Program Chair and Chair, Executive Committee, PhD in Human Systems Engineering
 (previously Simulation, Modeling, and Applied Cognitive Science; Fall 2010-present)
 University Graduate Council (Fall 2007-2012)
 Chair, Cognitive Science and Engineering Search Committee (Fall 2012)
 Member, TEIM Chair Search Committee (Fall 2010)
 Chair, Cognitive Science and Engineering Search Committee (Fall 2010)
 Program Director, Cognitive Science and Engineering Program (Fall 2010)
 University Promotion and Tenure Committee (Fall 2008-Spring 2011)
 Applied Arts and Sciences Personnel Committee (Fall 2005-Spring 2009)
 Applied Arts and Sciences Dean Search Committee (Fall 2007-Spring 2008)
 Applied Psychology Program Review Committee (Fall 2007-Spring 2008)

EXPERTISE

Courses Taught: capstone course in applied psychology/human systems engineering, cognitive psychology, experimental methods, memory, thinking, engineering psychology, human-computer interaction, expertise and expert systems, expertise and skill acquisition, introduction to psychology (honors level), industrial-organizational psychology, cognitive engineering and advanced technologies, team cognition, ASU 101

ASU Graduate Faculty: Psychology, Computer Science and Engineering, Human Systems Engineering

Research Areas: human-AI-robot teaming, cognitive engineering, knowledge elicitation, cognitive task analysis, human systems integration, team cognition, team situation awareness, team training, mental models, expertise, human-computer interaction, command-and-control of unmanned aerial vehicles, emergency response systems, healthcare, cyber security

GRANTS & CONTRACTS

Computing Research Laboratory, NMSU: *The User Interface in Computer Systems*, \$127,463, 7/1/83-6/30/85, with R.W. Schvaneveldt.

Sperry Corporation, Albuquerque, NM: *The Acquisition and Representation of Knowledge for Expert Systems*, \$24,000, 9/85-8/86, with J. McDonald, D. Partridge, & P. Lopez.

Rice University Faculty Research Grant: *Chess Expertise and Chess Knowledge*, \$945, 9/87-9/88.

Rice University Faculty Research Grant: *Expert Conceptual Representations*, \$1000, 9/88-9/89.

Rice University Faculty Research Grant: *The Development of Expertise*, \$1000, 9/89-9/90.

New Mexico State University Minigrant, *A Comparative Evaluation of Knowledge Elicitation Techniques*, \$1709, 5/93-12/93.

AFOSR Research Initiation Proposal, *An Approach to On-line Assessment and Diagnosis of Student Troubleshooting Knowledge*, \$20,000, 1/93-12/93.

XSOFT contract, *Tabworks Usability Project*, \$7521, 4/94-5/94, with D. Gillan.

INTEL gift in support of research, \$6500, 9/95-11/95,.

Microsoft Corporation, *Making Usability Data More Usable*, \$24,323, 1/96-7/96, with D. Gillan.

AFOSR, *Assessing Structural Knowledge: An Analysis of Knowledge Referents*, \$23,073, 1/97-10/97.

DOD DURIP (Defense University Research Instrumentation Program) grant, CERTT: *Facility for Cognitive Engineering Research on Team Tasks*, \$296,104, 4/97-12/97.

AFOSR, *Shared Knowledge and Team Performance: A Cognitive Engineering Approach to Measurement*, \$447,000, 2/98-12/00.

AFOSR, *CERTT Laboratory System Improvements*, \$67,621, 6/00-12/00.

ONR, *Methods for the Analysis of Team Communication*, \$470,430, 6/00-3/03, with P. Foltz.

AFOSR, *Team Cognition in Distributed Mission Environments*, \$408,644, 2/01-12/02. [Year 3 at ASU]

ARI, *Understanding Aspects of Individual and Collaborative Skill Acquisition in Face-to-Face and Distance Training Situations*, \$418,341, 9/01-8/04, co-pi with A. Lee and D. Gillan. [At NMSU]

ONR, *Toward a Universal Metric of Human Performance*, \$310,797, 11/01-12/04, with A. Lee (PI). [At NMSU]

NASA, *Toward a Model of Organizational Risk: Critical Factors at the Team Level*, \$39,709, 6/02-8/02.

ONR, *Using Team Communication to Understand Team Cognition in Distributed vs. Co-located Mission Environments*, \$437,351, 3/24/03-9/30/05. [grant to ASU]

AFOSR, *The Role of Individual and Team Cognition in Uninhabited Air Vehicle Command-and-Control*, \$250,127, 2/15/03-12/31/03. [grant to ASU]

AFOSR, *Acquisition and Retention of Coordination in Command-and-Control*, \$449,640, 3/15/04-12/31/06. [grant to CERI]

AFRL, *Acquisition and Retention of Coordination in Command-and-Control*, \$224,990, 3/11/04-12/31/06. [grant to CERI and subcontract to ASU]

AFRL, AFOSR, NASA, *Human Factors of UAVs Workshop: Manning the Unmanned*, \$27,000, 5/24-25, 2004 CERI workshop. [funds to CERI]

AFRL, AFOSR, FAA, *Microanalysis and Design: Second Annual Human Factors of UAVs Workshop: Manning the Unmanned*, \$28,000, 5/25-26, 2005 CERI workshop. [funds to CERI]

ONR, *Automatic Tagging of Macrocognitive Collaborative Processes through Communication Analysis*, \$564,546, 6/1/05-9/30/08, co-pi with P. Kiekel, CERI. [grant to ASU and subcontract to CERI]

ONR, *IMAGES: Instrument for Measuring and Advancing Group Environmental Situation Awareness*, \$49,799, 9/1/05 – 3/1/07. [Aptima subcontract to CERI on Phase II STTR].

Northrop Grumman/AFRL, *Team-Based Assessment of Socio-Technical Logistics (TASL)*, \$58,861, 6/1/2005-11/30/2005. [awarded to CERI]

AFRL, AFOSR, FAA, *Research Integrations: Third Annual Human Factors of UAVs Workshop: Manning the Unmanned*, \$21,000, 5/24-26, 2006 CERI workshop. [funds to CERI]

ARI SBIR, *Shared Understanding Across Levels of Command: \$129,605, 1/3/06-12/21/07. [Aptima subcontract to ASU on Phase II SBIR]*

CA Space Grant Foundation, *UAV Alliance, Research, and Development Curriculum Project*, \$54,899, 11/21/05-8/30/06. [grant to ASU]

ONR MURI, (grant to ASU, UCF Prime) *Cognition and Collaboration in Network Centric Operations: Understanding & Measuring Macrocognition in Teams*, \$1,155,182, 5/1/06-9/30/11.

AFRL SBIR, *Intelligent Decluttering of UAV Displays*, \$19,503, 5/1/06-1/30/07. [Kutta Consulting

subcontract to CERl on SBIR Phase I]

AFOSR STTR, *Communication Analysis for Enhanced Team Performance in the AOC*, \$41,451, 8/1/06-4/30/07. [Aptima subcontract to CERl on STTR Phase I]

AFOSR, AFRL *Cognitive Coordination on the Network Centric Battlefield*, \$545,105, FA9550-07-1-0081, 1/1/07-11/30/09. [grant to CERl]

ONR STTR, *MIMIC: Human-Directed Learning for Unmanned Air Vehicle Systems in Expeditionary Operations*, \$30,117, 8/1/07-5/31/08. [Aptima subcontract to CERl on STTR Phase I]

ONR STTR, *Dynamical Modeling of Discourse for Team Performance Analysis and Enhancement*, \$44,480, 8/1/07-5/31/08. [Sandia Research subcontract to ASU Phase I]

AFOSR STTR, *CIFTS: Communications and Information Flow Tracking System*, \$230,000, 8/1/07-7/31/09. [Aptima subcontract to CERl on STTR Phase II]

Leonard Wood Institute, *Harnessing Human IED Emplacement Detection Expertise*, \$224,176, 9/30/2008-10/1/2009. [Subcontracted to ASU by Carnegie Mellon/Batelle]

ONR STTR, *MIMIC (Mixed Initiative Machine for Instructed Computing) Operations*, \$149,980, 10/1/2008 – 12/31/2009. [Aptima subcontract to CERl on STTR Phase II]

ONR, *Developing a Synthetic Teammate*, \$179,740, 12/1/2008-11/30/2009. [co-pi with Christopher Myers]

Army Research Office MURI, *Computer-aided Human Centric Cyber Situation Awareness*, \$593,592, 6/01/09-5/31/14. [Subcontracted to ASU by Penn State University]

Veterans Health Administration Systems Redesign Veterans Engineering Resource Centers, Mid-West Mountain VERC, 2010-2011, consortium [funds Cooke IPA and multiple task orders totaling \$159,110].

ONR STTR, *CRA PUMA*, \$241,205, 11/18/2009-11/30/2010. [Charles River Analytics subcontract to CERl on STTR Phase II]

ONR DURIP, *Next Generation CERTT Laboratory*, \$702,794, 6/2010-6/2011.

Science Foundation AZ, Aerospace Defense Initiative: *Human Systems Integration of Remotely Piloted Aircraft (RPA)*, \$130,000, 10/1/2010-9/30/2011.

ONR, *Synthetic Teammates as Team Players: Coordination of Human and Synthetic Teammates (CERI \$714,264, 3.5 years)*, 2011-2016.

AFRL, Unmanned Aerial Systems (UAS) SBIR Phase I Training Analysis (to CERl through L3, \$100K, 2012.

ONR SBIR, *Smart Interaction Device for VTOL UAS*, \$66,738, 9/6/12-1/31/14. [SoarTech contract to CERl]

ONR, *Planning for Peer-to-Peer Human Robot Teaming in Open Worlds*, \$450,000, 6/2013-6/2016. [PI: Subbarao Kambhampati, ASU]

ARO SBIR Phase I *Cyber Warfare Simulation Environment*, \$30,035, 5/1/13-10/31/13. [Subcontract to ASU from Sandia Research]

ARO SBIR Phase II *Effective Cyber Situation Awareness (CSA) Assessment and Training*, \$359,782.75, 10/15/14-06/30/15. [Subcontract to ASU from Sandia Research]

AFRL SBIR Phase II *ADAPTER II*, \$58,870, 8/26/14-8/25/15. [Subcontract to ASU from Charles River Analytics]

AFRL SBIR Phase II *Monitoring Extracting and Decoding Indicators of Cognitive Load (MEDIC II) (Co-PI)*, \$103,455.00, 6/12/2015-12/11/2016. [Subcontract to ASU from Charles River Analytics]

NGA Foresight Initiative, \$20M, 2014-2015. [Nadya Bliss PI; Cooke one of 11 Co-Is]

Center for the Science of Healthcare Delivery – Mayo Clinic, *A Human Factors Approach to Building High-Performance Multi-Professional Cardiac Arrest Teams: Innovative Simulations to Real Life and Back*, \$20,000, 2/13/15-2/12/16. [PI: Ayan Sen, MD]

DOE NEUP Project 15-8121 *Automatic Imagery Data Analysis for Proactive Computer-Based Workflow Management during Nuclear Power Plant Outages*, \$778,531, 10/1/2015-9/30/2018. [PI: Pingbo Tang]

ONR, *Planning Challenges in Human-Robot Teaming: An Integrated Exploration of Representations, Algorithms and Human Factors*, \$774,376, 8/1/16-7/30/21. [PI: Subbarao Kambhampati, ASU]

AFRL SBIR FA8650-16-M-6754, *Coordination and Performance Metrics for the JTAGSS Training System*, \$27,000, 8/1/2016-4/30/2017, to CERl [PI: Sandia Research Corporation]

ONR, *Human-Autonomy Teaming in Remotely Piloted Aircraft Systems Operations Under Degraded Conditions*, \$920,652, [PI: Cooke, award to CERl]

- NASA, ULI, *Information fusion for real-time national air transportation system prognostics under uncertainty*. \$9,999,998, 2017-2022. [PI: Yongming Liu, ASU]
- ARO MURI, *Realizing cyber inception: Towards a science of personalized deception for cyber defense*, \$639,429 - ASU portion, 2017-2022. [PI: Milind Tambe, USC; Transferred ASU PI to Tiffany Bao in 2019]
- AFOSR, *Improving Situation Awareness in Distributed Human-Robot Teams*, \$2,014,294, 2/1/2017-1/31/2022. [PI: Cooke]
- ONR, *A Biometric Measurement Suite to Understand the Processes Behind Human Learning and Performance in Complex Settings*, \$286,155, 6/1/2017-5/31/2018. [PI: Cooke]
- ONR, *Human-Aware Planning & Decision Support for Collaborative Complex Decision-Making*, \$1,952,664, 9/15/2018-9/14/2022. [PI: Khambhampati]
- ARL Collaborative Complex Decision-Making (Minecraft). *Cooperative Agreement, Human-Agent Teaming: Interaction Metrics*, \$250,000, 9/15/2018-9/14/2020. [PI: Cooke]
- NSF RAISE C-Accel Pilot – Track B2. *National Talent Ecosystem*, \$998,588, 9/1/2019-5/31/2020. [PI: Srivastava]
- AFRL STTR Phase I. *SHADE*, \$45,000, 8/5/2019-4/30/2020. [PI: Scientific Systems Company, Inc.]
- ARL. *Human-Autonomy Teaming: Capturing Team Effectiveness Factors to Support Feedback and Interventions*, \$600,001, 9/1/2020-8/31/2023. [PI: Cooke]
- DOD ADL, *Exploring an Expanded Theory of Multimedia Learning for Supporting Distributed Learning*, \$894,942, 2/13/2019-4/30/2021. [PI: Craig]
- ONR DURIP: *A Testbed for Research on Distributed Human, Artificial Intelligence, and Robot Teaming*, \$446,845, 5/1/2020-4/30/2021 [PI: Cooke]
- DARPA ASIST, *The Social Intelligence Manipulation & Measurement Lab (SIM2 Lab)*, \$2,654,327.00, 9/30/2019-9/30/2023. [Prime: Aptima; ASU PI Cooke]
- DARPA, *ADAPT II*, \$486,000.00, 7/16/2020-9/15/2021. [Prime: Aptima; ASU PI Cooke]
- DARPA, *Collaboration Facilitation Agent Study (CFAS)*, \$895,997.00, 11/13/2020-6/12/2021 [PI: Cooke]
- AFOSR, *Trusted Distributed Human-Machine Teaming for Safe and Effective Space-based Missions*, \$200,000, 2/1/2021-1/31/2022 [Cooke: PI]
- ONR, *Shipboard Assistants for Troubleshooting AI Systems*, \$524,901, 5/1/2021-4/30/2024. [Srivastava: PI]
- ARL, *Human-Autonomy Teaming Capturing Team Effectiveness Factors to Support Feedback and Interventions*, \$310,000, 9/28/2023-9/27/2024. [PI: Cooke]
- DARPA/Aptima, *ADAPTII.2*, \$539,996, 8/9/2023-8/8/2024. [PI: Cooke]
- DARPA/Aptima, *SPIDERSENSE II*, \$341,959, 8/21/2023-2/8/2024. [PI: Cooke]

PUBLICATIONS

Journal Articles (refereed)

- 1) Schvaneveldt, R. W., Durso, F. T., Goldsmith, T. E., Breen, T. J., Cooke, N. M., Tucker, R. G., & DeMaio, J. C. (1985). Measuring the structure of expertise. *International Journal of Man-Machine Studies*, 23, 699-728.
- 2) Cooke, N.M., & McDonald, J.E. (1986). A formal methodology for acquiring and representing expert knowledge. *Proceedings of the IEEE: Special Issue on Knowledge Representation*, 74, 1422-1430. (Reprinted in *Expert Systems: A Software Methodology for Models and Applications*, (1990) P. Raeth (Ed.). Los Alamos, CA: IEEE Computer Society Press.)
- 3) Cooke, N.M, Durso, F.T., & Schvaneveldt, R.W. (1986). Recall and measures of memory organization. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12 (4), 538-549.
- 4) Durso, F.T., Cooke, N.M., Breen, T.J., & Schvaneveldt, R.W. (1987). Is consistent mapping necessary for high-speed search? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13 (2), 223-229.
- 5) Cooke, N.M., & McDonald, J. E. (1987). The application of psychological scaling techniques to knowledge elicitation for knowledge-based systems. *International Journal of Man-Machine Studies*, 26, 533-550.
- 6) Cooke, N. J. & Schvaneveldt, R. W. (1988). Effects of computer programming experience on network representations of abstract programming concepts. *International Journal of Man-Machine Studies*, 29,

- 407-427.
- 7) Cooke, N. J. (1990). Practice makes perfect -- or does it? (Review of *The Nature of Expertise* by Chi, Glaser, and Farr) *Journal of Contemporary Psychology*, 35, 251-253.
 - 8) Gillan, D. J., Breedin, S. D., & Cooke, N. J. (1992). Network and multidimensional representations of the declarative knowledge of human-computer interface design experts. *International Journal of Man-Machine Studies*, 36, 587-615.
 - 9) Cooke, N. J. (1992). Predicting judgment time from measures of psychological proximity. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 18, 640-653.
 - 10) Cooke, N. J., & Bartha, M. C. (1992). An empirical study of psychological metaphor. *Journal of Metaphor and Symbolic Activity: Special Issue*, 7, 215-235.
 - 11) Cooke, N. J. (1992). Eliciting semantic relations for empirically derived networks. *International Journal of Man-Machine Studies*, 37, 721-750.
 - 12) Halgren, S. L. and Cooke, N. J. (1993). Towards ecological validity in menu research. *International Journal of Man-Machine Studies*, 39, 51-70.
 - 13) Cooke, N. J., Atlas, R.S., Lane, D. M., & Berger, R. C. (1993). The role of high-level knowledge in memory for chess positions. *The American Journal of Psychology*, 106, 321-351.
 - 14) Cooke, N. J., & Breedin, S. D. (1994). Constructing naive theories of motion on-the-fly. *Memory and Cognition*, 22, 474-493.
 - 15) Cooke, N. J. & Breedin, S. D. (1994). Naive misconceptions of Cooke and Breedin's research: Response to Ranney. *Memory and Cognition*, 22, 503 - 507.
 - 16) Cooke, N. J., Durso, F. T., & Schvaneveldt, R. W. (1994). Retention of skilled search after nine years. *Human Factors*, 36, 597-605.
 - 17) Cooke, N. J. (1994). Varieties of knowledge elicitation techniques. *International Journal of Human-Computer Studies*, 41, 801-849.
 - 18) Rowe, A. L., & Cooke, N. J. (1995). Measuring mental models: Choosing the right tools for the job. *Human Resource Development Quarterly*, 6, 243-255.
 - 19) Cooke, N. J., & Neville, K. J., & Rowe, A. L. (1996) Procedural network representations of sequential data. *Human-Computer Interaction*, 11, 29-68.
 - 20) Rowe, A. L., Cooke, N. J., Hall, E. P., & Halgren, T. L. (1996). Toward an on-line knowledge assessment methodology: Building on the relationship between knowing and doing. *Journal of Experimental Psychology: Applied*, 2, 31-47.
 - 21) Cooke, N. J., & Rowe, A. L. (1997). Measures of mental models: A synthesis of evaluative data. *Training Research Journal*, 3, 185-207.
 - 22) Cooke, N. J., Salas, E., Cannon-Bowers, J. A., & Stout, R. (2000). Measuring team knowledge. *Human Factors*, 42, 151-173.
 - 23) Cooke, N. J., Kiekel, P. A., & Helm E. (2001). Measuring team knowledge during skill acquisition of a complex task. *International Journal of Cognitive Ergonomics: Special Section on Knowledge Acquisition*, 5, 297-315.
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12. Halgren, T. L. (1996). Travel through hyperspace or the failure to boldly go where no one has gone before. Master's Thesis, New Mexico State University.
13. La Salle, S. M. (1999). The effects of expanded realism of interface metaphor on performance and understanding of the system. Master's Thesis, New Mexico State University.
14. Kiekel, P.A. (2000). Communication of emotion in remote collaborative writing with rich versus lean groupware environments. Master's Thesis, New Mexico State University.
15. Lassiter, Honore' (2002). Interpersonal trust in small work groups. Master's Thesis, New Mexico State University.
16. Gorman, Jamie C. (2003). A Latent Semantic Analysis-based metric of team communications efficiency. Master's Thesis, New Mexico State University.
17. Rivera, K. (2003). Effects of computer-mediated communication on shared knowledge of team members. Master's Thesis, New Mexico State University.
18. Kiekel, P.A. (2004). Developing automatic measures of team cognition using communication data. Ph.D. Thesis, New Mexico State University.
19. DeJoode, J. A. (2004). Understanding failure to attach. M.A. Thesis, New Mexico State University.
20. Connor, O. O. (2005). Assessing clinical expertise in anesthesiology. M.A. Thesis, New Mexico State University.
21. Gorman, J. C. (2006). Team coordination dynamics in cognitively demanding environments. Ph.D. Thesis, New Mexico State University.
22. Rowe, L. (2007). Effects of Distributed Mission Operations (DMO) on Knowledge Acquisition of Fighter Pilots Utilizing the Air Superiority Knowledge Assessment System, M.S. Thesis, Arizona State University.
23. Winner, J. (2007). Measuring the Shared Interpretation of Commander's Intent, M.S. Thesis, Arizona State University.
24. Duran, J. (2010). Are Teams Equal to the Sum of Their Members? An Empirical Test. M.S. Thesis, Arizona State University.
25. Covas- Smith, C. M. (2011). The development of robust intuitive decision making in simulated real-world environments, PhD thesis, Psychology, Arizona State University.
26. Rajivan, P. (2011). CyberCog: A Synthetic Task Environment for Measuring Cyber Situation Awareness. M.S. Thesis, Arizona State University.
27. Fouse, S. (2012). Understanding Team Cognition through Communication Analysis: Measuring Team Interaction Patterns Using Recurrence Plots. M.S. Thesis, Arizona State University.
28. Champion, M. (2012). Geographically distributed teams in a collaborative problem solving task. M.S. Thesis, Arizona State University.
29. Gomez-Herbert, M. E. (2014). The effects of stress and mood on cognitive performance. M.S. Thesis, Arizona State University.
30. Rajivan, P. (2014). Information pooling bias in collaborative cyber forensics. PhD thesis, Simulation, Modeling, and Applied Cognitive Science, Arizona State University.
31. Bartlett, C. (2015). Communication between teammates in urban search and rescue. M.S. Thesis, Arizona State University.
32. Buchanan, V. (2016). The Role of Teamwork in Predicting Movie Earnings. M.S. Thesis, Arizona State University.
33. Bradbury, A. (2016). Network Defense and Team Cognition: A Team-Based Cybersecurity Simulation, M.S. Thesis, Arizona State University.
34. Fedele, M. (2016). Synchrony: Biometric Indication of Team Cognition. Synchrony: Biometric

- Indication of Team Cognition. M.S. Thesis, Arizona State University.
35. Driggs, Jade (2017). Towards Predicting Completion for United States Air Force (USAF)
 36. Remotely Piloted Aircraft (RPA) Training. M.S. Thesis, Arizona State University.
 37. Demir, M (2017). The Impact of Coordination Quality on Coordination Dynamics and Team Performance: When Humans Team with Autonomy. PhD thesis, Simulation, Modeling, and Applied Cognitive Science, Arizona State University.
 38. Hinski, S (2017). Training the Code Team Leader as a Forcing Function to Improve Overall Team Performance During Simulated Code Blue Events. PhD thesis, Human Systems Engineering, Arizona State University.
 39. Hamister, E. (2018). Examining How Humans Anthropomorphize a Synthetic Agent. MS Applied Project. Arizona State University.
 40. Martin, S. (2019). The Effect of an Educational Intervention on Affect and Trust of Autonomous Vehicles. M.S. Thesis, Arizona State University.
 41. Chinzi, A. (2019). The Effects of Confirmation Bias and Susceptibility to Deception on an Individual's Choice to Share Information. M.S. Thesis, Arizona State University.
 42. Harris, M. (2019). Factors Contributing to Self-Reported Student Pilot Fatigue. M.S. Thesis, Arizona State University.
 43. Steinmetz, M. (2019). Creating Standards for Civilian Large-Scale UAVs. MS Applied Project. Arizona State University.
 44. Schroll, K. (2019). The Effects of a Multi-View Camera System on Spatial Cognition, Cognitive Workload and Performance in a Minimally Invasive Surgery Task. M.S. Thesis, Arizona State University.
 45. Day, N. (2019). Certainty, Severity, and Low Latency Deception. M.S. Thesis, Arizona State University.
 46. Muquolli, E. (2019). Communicating Intent in Autonomous Vehicles. M.S. Thesis, Arizona State University.
 47. Bartlowe, H. (2019). The Relationship Between Nicotine Withdrawal Symptoms and Nicotine Habits in Pilots. M.S. Thesis, Arizona State University.
 48. Jacobs, D. (2019). Rates of Depression, Anxiety, and Stress in Collegiate Aviators. M.S. Thesis, Arizona State University.
 49. Akca, S. (2020). Team Cognition and Outage Management: Improving Nuclear Power Plant Resilience. PhD thesis, Human Systems Engineering, Arizona State University.
 50. Johnson, C. (2020). Communication Networks and Team Workload in a Command and Control Synthetic Task Environment, M.S. Thesis, Arizona State University.
 51. Lieber, C. (2020). Communications Between Air Traffic Controllers and Pilots During Simulated Arrivals: Relation of Closed Loop Communication Deviations to Loss of Separation, M.S. Thesis, Arizona State University.
 52. Kim, J. (2021). Team Situation Awareness in Next Generation Combat Vehicle. M.S. Thesis, Arizona State University.
 53. Bhatti, S. (2021). Exploring the Relationship between Anticipatory Pushing of Information and Teammate Trust. M.S. Thesis, Arizona State University.
 54. Zakersharak, Mehrdad (2021). Towards Human-Machine Symbiosis: Design for Effective AI Facilitation. PhD thesis, CIDSE, Arizona State University [co-chair with Yu Zhang].
 55. Rios, A. (2022). Investigating User Experience of Chatbot Repair Strategies in Simple Versus Complex Tasks, M.S. Thesis, Arizona State University.
 56. Cohen, M. C. (2022). Personifying and Objectifying Language as Indicators of Trust, Anthropomorphism, and Team Performance in Command-and-Control Human-Machine Teams, M.S. Thesis, Arizona State University.
 57. Wolff, A. (2022). How Confidence Information Influences Trust in Human-Robot Teams, M.S. Thesis, Arizona State University.
 58. Clark, J. (2023). Relating Individual Vocal Pitch to Team Performance in a Dynamic Simulated Urban Search and Rescue Task, M.S. Thesis, Arizona State University.
 59. Graham, H. D.(2023). An Exploration of Resilience for Complex Sociotechnical Human, Artificial Intelligence, and Robot Teams. PhD thesis, Human Systems Engineering, Arizona State University.
 60. Ezenyilimba, A. (2023). Mild Traumatic Brain Injury Executive Function Rehabilitation through

- Serious Gamification, PhD thesis, Human Systems Engineering, Arizona State University.
61. Johnson, C. J. (2023). Team Workload in Action Teams, PhD thesis, Human Systems Engineering, Arizona State University.
 62. Buchanan, V. (2023). You and I are Not the Same: A Comparison of Human and Artificial Intelligent Advisors, PhD thesis, Human Systems Engineering, Arizona State University.

EXTERNAL DISSERTATION REVIEWER

- Mumtaz, Muhammad Khan. (2009). Implicit Coordination Behaviors: Team Process for Effective Management. M.Phil./Ph.D. Dissertation, National College of Business Administration and Economics, Pakistan.
- Taber, Michael, J. (2010). Human Systems Integration and Situation Awareness in Microworlds: An Examination of Emergency Response Within the Offshore Command and Control Training System. PhD Dissertation, Dalhousie University.
- Steiner, Lisa (2013). Reducing Underground Coal Roof Bolting Injury Risks Through Equipment Design. PhD Dissertation, The University of Queensland.
- Ryan, Bennet (2020). The Application of Human Factors and Ergonomics (HFE) to Community -Sport Organisations in Resource Scarce Contexts: A Case Study of Grassroots Football in Makana, Eastern Cape. PhD Dissertation, Rhodes University, South Africa.

PHD RESEARCH PRACTICUM ADVISOR

Dube, Genevieve (2012). Université Laval, Québec

CURRENT PHD COMMITTEES

Sarah Ligda, 2017, chair, Human Systems Engineering, ASU
 Verica Buchanan, 2016, chair, Simulation, Modeling, and Applied Cognitive Science, ASU
 Craig Johnson, 2018, chair, Human Systems Engineering
 Chris Lieber, 2018, chair, Human Systems Engineering
 Tracy Chesney, member, School of Nursing, Duquesne University
 Hudson Graham, 2020, chair, Human Systems Engineering
 Michael Cohen, 2020, chair, Human Systems Engineering
 Tamantha Pizarro, 2021, member, Applied Mathematics
 Carlos Bustamante, 2021, member, Applied Mathematics
 Lucero Rodriguez, 2021, member, Applied Mathematics
 Kasey Stevenson, 2021, member, Human Systems Engineering
 Robert Siegle, 2022, member, Human Systems Engineering
 Akudasuo Ezenyilimba, 2021, chair, Human Systems Engineering
 Aaron Teo, 2021, chair, Human Systems Engineering
 David Stinson, 2021, member, Human Systems Engineering
 Matthew Peel, 2021, chair, Human Systems Engineering
 Savannah Bradley, 2022, chair, Human Systems Engineering

PAPERS PRESENTED

- 1) Cooke, N.M., & Smith, R. (1984). Evidence for networks from recall. In K. Paap (chair), Link-weighted Networks. Paper presented at the meetings of the Rocky Mountain Psychological Association, Las Vegas, NV.
- 2) Schvaneveldt, R. W., Cooke, N.M., Durso, F. T., Onorato, L., & Bailey, G. (1984). A Taxonomy of Human-Computer Interactions: Toward a Modular User Interface. Paper presented at the First USA-Japan Conference on Human-Computer Interaction, Honolulu, HI.
- 3) Cooke, N.M. (1985). Computer programming expertise: Variations in cognitive structures. In F. Durso (chair), Human Expertise: Papers in Honor of William Chase. Paper presented at the meetings of the Southwestern Psychological Association, Austin, TX.
- 4) Durso, F.T., Cooke, N.M., Breen, T.B., & Schvaneveldt, R.W. (1985). Practice Effects Without Consistent Mapping. Paper presented at the meetings of the Southwestern Psychological Association, Austin, TX.

- 5) Cooke, N.M. & Schvaneveldt, R.W. (1986). The Evolution of Cognitive Networks with Computer Programming Experience. Paper presented at the workshop on Empirical Studies of Programmers, June 5-6, 1986, Washington, D.C.
- 6) Cooke, N.M. & McDonald, J. E. (1986). The Application of Psychological Scaling Techniques to Knowledge Elicitation for Knowledge-based Systems. Paper presented at the Knowledge Acquisition for Knowledge-based Systems workshop, November 2-7, 1986, Banff, Alberta, Canada.
- 7) Cooke, N.M., & Schvaneveldt, R.W. (1987). The application of empirically derived semantic networks to knowledge engineering. In F. Durso (chair), Knowledge structures: What are they good for? Paper presented at the meetings of the Southwestern Psychological Association, April 16-18, New Orleans, LA.
- 8) Cooke, N. J. (1988). A methodology for capturing the elusive mental model. Paper presented at User System Interface Conference, February 1988, Austin, TX.
- 9) Cooke, N. J. (1988). Spatial vs. network scaling and category judgment time. Paper presented at Southwestern Psychological Association, April 13, 1988, Houston, TX.
- 10) Gillan, D. & Cooke, N. J. (1989). Cognitive modeling in human-computer interaction. Paper presented at Human Factors Symposium, NASA/JSC, September 19, 1989.
- 11) Halgren, S.L. & Cooke, N. J. (1990). Information displays: The effect of organization and category distinctiveness on user performance. Poster presented at the CHI' 90 - Human factors in computing systems conference, April 1-5, 1990, Seattle, WA.
- 12) Breedin, S. D., Cooke, N. J., Rudisill, M., & Gillan, D. (1990) Effects of knowledge elicitation techniques on naive models of physics. Paper presented Southwestern Psychological Association, April 12-14, 1990, Dallas, TX.
- 13) Cooke, N. J., Berger, R. C., & Lane, D. L. (1990). Conceptual chunking in chess: Beyond perception. Paper presented Southwestern Psychological Association, April 12-14, 1990, Dallas, TX.
- 14) Cooke, N. J., & Breedin, S. D. (1990). Implicit knowledge about object motion. Paper presented at the Texas Cognition Conference, May 25-26, San Antonio, TX.
- 15) Jones, S. F., & Cooke, N. J. (1990). The effects of training on statistical reasoning. Paper presented at the 34th annual meeting of the Human Factors Society, October 8-12, Orlando, FL.
- 16) Cooke, N. J., & Breedin, S. D. Implicit knowledge about motion. Poster presented at the 31st annual meeting of the Psychonomic Society, November 16-18, New Orleans, LA.
- 17) Atlas, R. S., & Cooke, N. J. (1991). Chess expertise and capacity for immediate recall of visually presented positions. Paper presented Southwestern Psychological Association, April 11-13, 1991, New Orleans, LA.
- 18) Halgren, S. L. & Cooke, N. J. (1991). Toward ecological validity in menu research. Poster presented at the CHI' 91 - Human factors in computing systems conference, April 29-May 2, 1991, New Orleans, LA.
- 19) Halgren, S. L., Flowers, K. A., & Cooke, N. J. (1991). The effect of explanation type on human-expert system interactions. Poster presented at the 35th annual meeting of the Human Factors Society, September 2-6, San Francisco, CA.
- 20) Procedural knowledge development during skill acquisition. Paper presented at the South Texas Symposium on Human Factors and Ergonomics, November 15, San Antonio, TX.
- 21) Rowe-Hallbert, A. L., Neville, K. J., & Cooke, N. J. (1991). Measuring the elusive mental model. Paper presented at the South Texas Symposium on Human Factors and Ergonomics, November 15, San Antonio, TX.
- 22) Cooke, N. J. (1992). Mental models of metal models. Paper presented at the Southwestern Psychological Association Meeting: Symposium on Empirical Epistemology (F. T. Durso chair), April 16-18, 1992.
- 23) Neville, K. J., & Cooke, N. J. (1992). A methodology for assessing procedural knowledge. Paper presented at the Southwestern Psychological Association Meeting, April 16-18, 1992.
- 24) Cooke, N. J. (1992). Structural modeling techniques and sequential analysis. Paper presented at CHI '92 - Human factors in computing systems conference, Workshop on Exploratory Sequential Data Analysis, May 3 -May 7, 1992, Monterey, CA.
- 25) Flowers, K. A., & Cooke, N. J. (1992). Knowledge structures and subject access. Poster presented at CHI '92 - Human factors in computing systems conference, May 3-May 7, 1992, Monterey, CA.
- 26) Rowe, A. L., Cooke, N. J., Neville, K. J., Schacherer, C. W. (1992). Mental models of metal models:

- A comparison of mental model measurement techniques. Paper presented at the 36th annual meeting of the Human Factors Society, October 12-16, Atlanta, GA.
- 27) Rowe, A. L., & Cooke, N. J. (1993). An approach to identifying meaningful action patterns in student-tutor interactions. Paper presented at the 37th annual meeting of the Human Factors and Ergonomics Society, October 11-15, Seattle, WA.
 - 28) Cooke, N. J., Durso, F. T., & Schvaneveldt, R. W. (1993). Retention of skilled search after nearly a decade. Paper presented at the 34th annual meeting of the Psychonomic Society, November 5-7, Washington, D.C.
 - 29) Bauhs, J. A., & Cooke, N. J. (1994). Is knowing more really better? Effects of system development information in human-expert system interactions. Poster presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
 - 30) Rivera, K., Cooke, N. J., Rowe, A. L., & Bauhs, J. A. (1994). Conveying emotion in remote computer-mediated communication. Poster presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
 - 31) Rowe, A. L., Lowry, T., Halgren, S. L., & Cooke, N. J. (1994). A comparison of usability evaluations conducted by different teams. Poster presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
 - 32) Cooke, N. J., & Rowe, A. L. (1994). Mapping avionics troubleshooting actions onto mental models. Paper presented at the Practical Aspects of Memory Conference, July 31-August 5, College Park, MD.
 - 33) Cooke, N. J., & Rowe, A. L. (1994). Evaluating mental model elicitation methods. Paper presented at the 38th annual meeting of the Human Factors and Ergonomics Society, October 24-28, Nashville, TN.
 - 34) Cooke, N. J. (1995). Pathfinder network scaling: Potential Applications for modeling instructional developers. Evaluating mental model elicitation methods. Paper presented at 39th annual meeting of the Human Factors and Ergonomics Society, October 9-13, San Diego, CA.
 - 35) Rivera, K., Cooke, N. J., & Bauhs, J. A. (1996). Effects of emotional icons on remote communication. Poster presented at CHI '96 - Human factors in computing systems conference, April 13-April 18, Vancouver, British Columbia, Canada.
 - 36) Cooke, N. J., & Rowe, A. L. (1996). Evaluating measures of mental models. Paper presented the 104th Convention of the American Psychological Association, August 9-13, Toronto, Canada.
 - 37) Cooke, N. J., Stout, R. J., & Salas, E. (1996). Methods for eliciting and assessing the shared cognitions underlying team situation awareness. Paper presented in the Colloquium on Multi-Operator Performance in Complex Military Systems, Human Factors and Ergonomics Society Conference, September 2-6, Philadelphia, PA.
 - 38) Cooke, N. J., Stout, R., & Salas, E. (1997). Expanding the measurement of situation awareness through cognitive engineering methods. Paper presented at the 41st annual meeting of the Human Factors and Ergonomics Society, September 22-26, Albuquerque, NM.
 - 39) Cooke, N. J., Rivera, K., LaSalle, M., Rice, S., & Schmidt, B. (1997). The role of cognitive engineering in the design of advanced technology. Poster presented at the 41st annual meeting of the Human Factors and Ergonomics Society, September 22-26, Albuquerque, NM.
 - 40) Cooke, N. J., Stout, R., & Salas, E. (1997). Cognitive task analysis for team tasks. Paper presented at the ONR/NATO Workshop on Cognitive Task Analysis, October 30-November 1, 1997, Washington, D. C.
 - 41) Cooke, N. J., Stout, R., Rivera, K., & Salas, E. (1998). Exploring measures of team knowledge. Paper presented at the 42nd annual meeting of the Human Factors and Ergonomics Society, October 5-9, Chicago, IL.
 - 42) Rowe, A. L., Cooke, N. J., & Rivera, K. (1998). Assessing knowledge structures: An analysis of knowledge standards. Poster presented at the 42nd annual meeting of the Human Factors and Ergonomics Society, October 5-9, Chicago, IL.
 - 43) Cooke, N. J. (1999). Knowledge metrics for teams. Paper presented at Meeting of the Southwestern Psychological Association, April 1-3, Albuquerque, NM.
 - 44) Cooke, N. J., Rivera, K., Shope, S.M., & Caukwell, S. (1999). A synthetic task environment for team cognition research. Paper presented at the 43rd annual meeting of the Human Factors and Ergonomics Society, September 27-October 1, Houston, TX.
 - 45) Cooke, N. J. (1999). CERTT Lab. Poster presented at the technical group meeting of the Cognitive Engineering and Decision Making technical group at the 43rd annual meeting of the Human Factors and Ergonomics Society, September 27-October 1, Houston, TX.

- 46) Cooke, N. J., Cannon-Bowers, J. A., Kiekel, P. A., Rivera, K., Stout, R., and Salas, E. (2000). Improving team's interpositional knowledge through cross training. Paper presented at 44th annual meeting of the Human Factors and Ergonomics Society and International Ergonomics Association, July 30-August 4, San Diego, CA.
- 47) Cooke, N. J., Shope, S.M., & Rivera, K. (2000). Control of an uninhabited air vehicle: A synthetic task environment for teams. Demonstration presented at the 44th annual meeting of the Human Factors and Ergonomics Society and International Ergonomics Association, July 30-August 4, San Diego, CA.
- 48) Kiekel, P. A., & Cooke, N. J. (2001). A clustering approach to determining discrete pattern shifts in sequential data. Talk and abstract presented at the meeting of the Psychometric Society, June 25, King of Prussia, PA.
- 49) Foltz, P. W., Cooke, N. J., Kiekel, P. & Shope, S. M. (2001) Automating the measurement of team cognition through an analysis of team communication. Talk presented at the Society for Text and Discourse, July, Santa Barbara, CA.
- 50) Cooke, N. J., Kiekel, P. A., & Helm E. (2001). Comparing and validating measures of team knowledge. Paper presented at 45th annual meeting of the Human Factors and Ergonomics Society, October 8-12, Minneapolis, MN.
- 51) Hottman, S.B., Jackson, J., Sortland, K., Witt, G., and Cooke, N.J. (2001). UAVs and air traffic controllers: Interface considerations. Paper presented at the AUVSI 2001 Annual Symposium of the Association for Unmanned Vehicle Systems International, July 31-August 2, Arlington, VA.
- 52) Kiekel, P. A., Cooke, N. J., Foltz, P. W., & Shope, S. M. (2001). Automating measurement of team cognition through analysis of communication data. Paper presented at Human Computer Interaction International, August 8, New Orleans, LA.
- 53) Cooke, N. J., & Bell, B. (2001). The CERTT Lab: Cognitive Engineering Research on Team Tasks. Poster presented at the first annual NMSU Research and Creative Activities Fair, September 27, Las Cruces, NM.
- 54) Cooke, N. J., & Shope, S. M. (2002). The CERTT-UAV Task: A Synthetic Task Environment to Facilitate Team Research. Paper presented at the Advanced Simulations Technologies Conference, April 14-18, San Diego, CA.
- 55) Cooke, N. J., Kiekel, P. A., & Bell, B., & Salas, E. (2002). Addressing limitations of the measurement of team cognition. Paper presented at 46th annual meeting of the Human Factors and Ergonomics Society, September 30-October 4, Baltimore, MD.
- 56) Cooke, N. J. (2002). Team communication analysis: Exploiting the wealth. Symposium overview presented at 46th annual meeting of the Human Factors and Ergonomics Society, September 30-October 4, Baltimore, MD.
- 57) Kiekel, P. A., Cooke, N.J., Foltz, P.W., Gorman, J. C., & Martin, M.J. (2002). Some promising results of communication-based automatic measures of team cognition. Paper presented at 46th annual meeting of the Human Factors and Ergonomics Society, September 30-October 4, Baltimore, MD.
- 58) Cooke, N. K., DeJoode, J. D., Gorman, J., Keith, Rebecca, Lee, S., & Pedersen, H. (2002). Team cognition and homeland defense. Poster presented at 46th annual meeting of the Human Factors and Ergonomics Society, Special poster session on Cognitive Engineering and Decision Making Applied to Homeland Defense, September 30-October 4, Baltimore, MD.
- 59) Foltz, P.W., Martin, M., Kiekel, P. A., Gorman, J., & Cooke, N.J. (2003). Automated Team communication analysis with latent semantic analysis. Paper presented at CTA Symposium, April 29-May 1, College Park, MD.
- 60) DeJoode, J., Cooke, N. J., & Shope, S.M. (2003). Naturalistic observations of an airport mass casualty exercise. Poster presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
- 61) Bell, B. G., & Cooke, N. J. (2003). Cognitive ability correlates of performance on a team task. Poster presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
- 62) Gorman, J.C., Foltz, P.W., Kiekel, P.A., Martin, M. J., & Cooke, N. J. (2003). Evaluation of Latent-Semantic Analysis-based measures of team communications. Paper presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
- 63) Cooke, N. J. (2003). Knowledge modeling and design for the aging. Panel paper presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.

- 64) Connor, O., Cooke, N. J., Slagle, J., and Weinger, M. (2004). Pilot Study of the Measurement of Context-Dependent Concept Relatedness to Assess Anesthesiology Expertise. Paper presented at annual meeting of the Society for Technology in Anesthesia, January 15, Albuquerque, NM.
- 65) DeJooode, J. A., Cooke, N.J., & Shope, S. M. (2004). Naturalistic observation of airport incident command. Poster presented at Human Performance, Situation Awareness and Automation Technology Conference, March 22 – 25, Daytona Beach, FL.
- 66) Cooke, N. J. (2004). Team Cognition: Why, What, and How? Paper presented at the annual convention of the American Psychological Association, July 29, Honolulu, HI.
- 67) Cooke, N. J., Kiekel, P. A., & Gorman, J. C. (2005). Team Communication as a Team Cognition Barometer. Paper presented at the Society of Industrial Organizational Psychologists, April 16, Los Angeles, CA.
- 68) Pedersen, H. K., & Cooke, N. J. (2005). Team Coordination in UAV Operations. Paper presented at the International Symposium on Aviation Psychology, April 18-21, Oklahoma City, OK.
- 69) Cooke, N. J., Connor, O., & Cooke, N. J. (2005). Augmented Team Cognition. Paper presented and session chaired at Augmented Cognition International, HCII, July 22-27, Las Vegas, NV.
- 70) Gorman, J. C., Cooke, N. J., Pedersen, H. K., Connor, O.O., & DeJooode, J. A. (2005). Coordinated awareness of situation by teams (CAST): Measuring team situation awareness of a communication glitch. Paper presented at 49th annual meeting of the Human Factors and Ergonomics Society, September 26-30, Orlando, FL.
- 71) Gorman, J. C., Cooke, N. J., Pedersen, H. K., Winner, J. L., Andrews, D., Amazeen, P. G. (2006). Changes in Team Composition After a break: Building adaptive command-and-control teams. Paper presented at 50th annual meeting of the Human Factors and Ergonomics Society, October 16-20, San Francisco, CA.
- 72) Cooke, N. J. (2006). Human Factors of Remotely Operated Vehicles. Panel chaired at 50th annual meeting of the Human Factors and Ergonomics Society, October 16-20, San Francisco, CA.
- 73) Cooke, N. J. (2006). Cross Cultural Interactions: Methods and Motivations for Study. In C. A. Miller, panel position paper presented at 50th annual meeting of the Human Factors and Ergonomics Society, October 16-20, San Francisco, CA.
- 74) Gorman, J.C., Amazeen, P.G., & Cooke, N.J. (2007). Team coordination dynamics. Poster presented at Coordination Dynamics 2007. February 22-25. Boca Raton, FL.
- 75) Cooke, N. J., Gorman, J. C., Pedersen, H. K., Myers, C. W., Duran, J., and Andrews, D. (2007). Retention of team coordination skill. Presentation at the Distributed Mission Operations Workshop, September 3, Mesa, AZ.
- 76) Myers, C. W., Cooke, N. J., Robinson, F. E., Heiberg, A., Ball, J., & Gluck, K. (2007). Collaborating with synthetic teammates. Presentation at the Distributed Mission Operations Workshop, September 6, Mesa, AZ.
- 77) Cooke, N., Amazeen, N., Andrews, D., Duran, J., Gorman, J., Pedersen, H., Rowe, L., Taylor, A., & Winner, J. (2007). Acquisition and retention of team UAV Coordination Skill. Paper presented at the Fourth Annual Human Factors of UAVs Workshop, May 21-23, Chandler, AZ.
- 78) Gorman, J. C., Cooke, N. J., Warner, N., Wroblewski, E. (2007). Tagging Macrocognitive Processes Using Communication Flow Patterns, paper presented at the Annual Meeting of the Human Factors and Ergonomics Society, October 2007, Baltimore, MD.
- 79) Cooke, N. J. (2007). Panel presentation on Multiple Perspectives on the Macro-Cognition Construct. Paper position presented at Naturalistic Decision Making VIII, June 5, Monterey, CA.
- 80) Cooke, N. J. (2007). Communication-Based Metrics of Macrocognition. In E. Salas & S. Fiore, Panel position presented at the 51st annual meeting of the Human Factors and Ergonomics Society, October 1-5, Baltimore, MD.
- 81) Cooke, N. J. (2007). Design Specs for a Cognitive Engineering Textbook. In A. Kirlik, Panel position presented at the 51st annual meeting of the Human Factors and Ergonomics Society, October 1-5, Baltimore, MD.
- 82) Cooke, N. J., & Durso, F. T. (2007). Modern technology failures, Cognitive engineering successes, panel chaired at the Annual Meeting of the Human Factors and Ergonomics Society, October 2007, Baltimore, MD.
- 83) Duran, J. L., Robinson, F. E., Cooke, N. J., & Gorman J. C. (2008) A synthetic task environment for the study of macrocognition in teams. Poster presented at the Annual meeting of the Interdisciplinary Network for Group Research, July 2008, Kansas City, MO.
- 84) Winner, J. L., Cooke, N. J., Freeman, J., Sager, L., & Goodwin, G. F. (2008). Rank Order Procedure:

- Measuring the Shared Interpretation of Commander's Intent. American Psychological Association, August 16, 2008, Boston, MA.
- 85) Cooke, N. J. (2008). The Real Deal: Essential Lessons Learned from Human Factors Leaders. In C. Nemeth, Panel position presented at the 52nd annual meeting of the Human Factors and Ergonomics Society, September 22-26, New York, NY.
 - 86) Gorman, J. C., Hessler, E. E., Cooke, N. J., & Amazeen, P.G. (2009). Dynamics of Team Coordination and Adaptive Performance. Paper presented at the International Conference on Perception and Action 15, July 13, 2009, Minneapolis, MN.
 - 87) Durso, F. T., & Cooke, N. J. (2009). Modern Technology Failures and Cognitive Engineering Successes. Panel at the 2009 American Psychological Association Annual Convention, August 8, 2009, Toronto, Ontario, CA.
 - 88) Ball, J, Myers, C., Hieberg, A., Cooke, N., Matessa, M. & Freiman, M. (2009). The Synthetic Teammate Project. Paper presented at the *Behavior Representation in Modeling and Simulation Conference*.
 - 89) Cooke, N. J. (2009). Synthetic Agents as Team Players. Panel position at the 53rd annual meeting of the Human Factors and Ergonomics Society, October 22, San Antonio, TX.
 - 90) Duran, J. L., Goolsbee, Z., Cooke, N. J., & Gorman, J. C. (2009). Embedded collaboration metrics in the MacroCog synthetic task environment. Poster presented at the 53rd annual meeting of the Human Factors and Ergonomics Society, October 21, San Antonio, TX.
 - 91) Gorman, J. C., Cooke, N. J., Duran, J. L., McGrane, K., & Rima, N. (2009). Representing Workflow within the Air Operations Center: The Lifecycle of a Dynamic Target. Poster presented at the 53rd annual meeting of the Human Factors and Ergonomics Society, October 21, San Antonio, TX.
 - 92) Cooke, N. J., Hosch, C., Banas, S., Hunn, B. P., Staszewski, J., & Fensterer, J. (2010). Expert detection of Improvised Explosive Device behavior. Poster presented at the 54th Annual Conference of the Human Factors and Ergonomics Society. Santa Monica, CA: Human Factors and Ergonomics Society.
 - 93) Cooke, N. J. (2011). Synthetic Task Environments. Presentation at A Cyber Situation Awareness Workshop, February 10, 2011, Gilbert, AZ.
 - 94) Cooke, N. J., Rajivan, P., Champion, M., & Shankaranarayanan V. (2011). CyberCog: A Synthetic Task Environment for Studies of Cyber Situation Awareness. Poster presented at ASU's Fourth Annual Workshop on Information Assurance Research and Education, May 4, 2011, Tempe, AZ.
 - 95) Cooke, N. J., Rajivan, P., Champion, M., & Shankaranarayanan V. (2011). CyberCog: A Synthetic Task Environment for Studies of Cyber Situation Awareness. Poster presented at ASU's Innovation Showcase, May 4, 2011, Mesa, AZ.
 - 96) Cooke, N. J., Hosch, C., Banas, S., Hunn, B. P., Staszewski, J., & Fensterer, J. (2011). Expert detection of Improvised Explosive Device behavior. Poster presented at ASU's Innovation Showcase, May 4, 2011, Mesa, AZ.
 - 97) Fouse, S., Cooke, N. J., Gorman, J. C., Murray, I., Uribe, M., & Bradbury, A. (2011). Effects of Role and Location Switching on Team Performance in a Collaborative Planning Environment. Poster presented at the 55th annual meeting of the Human Factors and Ergonomics Society, September 21, Las Vegas, NV.
 - 98) Bruni, S., Schurr, N., Cooke, N., Riordan, B., & Freeman, J. (2011). Designing a Mixed-Initiative Decision-Support System for Multi-UAS Mission Planning, Paper presented at the 55th annual meeting of the Human Factors and Ergonomics Society, September 20, Las Vegas, NV.
 - 99) Champion, M., Rajivan, P., Cooke, N. J., & Jariwala, S. (2012). Team-Based Cyber Defense Analysis. *2012 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support*. March 6-8. New Orleans, LA.
 - 100) Cooke, N. J., Jariwala, S. (2012). CyberCog: A Synthetic Task Environment for Studies of Cyber Situation Awareness. Poster presented at ASU's Fifth Annual Workshop on Information Assurance, April 25, 2012, Tempe, AZ.
 - 101) Champion, M., Rajivan, R., Jariwala, S., Cooke, N. J., & Buchanan, V. (2013). Understanding the cyber security task. Poster presented at ASU's Sixth Annual Workshop on Information Assurance, May 1, 2013, Tempe, AZ.
 - 102) Cooke, N.J. & Myers, C. W. (2013). Issues relevant for synthetic teammate-human teammate interactions in operations of a synthetic unmanned aerial system. Paper presented at the 17th International Symposium on Aviation Psychology. May 6-9, Dayton, OH: Wright State University.

- 103) Cooke, N. J. (2013). Synthetic Task Environments: Challenges and Opportunities. Paper presented at the 17th International Symposium on Aviation Psychology. May 6-9, 2013, Dayton, OH: Wright State University.
- 104) Cooke, N., Shope, S., Bradbury, A., and Champion, M. (2014). DEXTAR: A Cyber Security Testbed. Poster presented at the Symposium on Information Assurance Research and Education. October 16, 2014, Arizona State University.
- 105) Ben-Asher, N., Rajivan, P., Cooke, N., & Gonzalez, C. (2014). Studying the dynamics of cyber-war through instance-base learning and multi-agent modeling. Paper presented at the fourth annual Midwestern cognitive science conference, May 30-31, 2014.
- 106) Cooke, N. J., Champion, M, Bradbury, A., & Shope, S. M. (2014). DEXTAR: A Cyber Security Testbed. ASU's Symposium on Information Assurance Research and Education, October 16, 2014, Tempe, AZ.
- 107) McNeese, N.J., Fedele, M., Buchanan, V., & Cooke, N. J. (2015). Human Factors Guidance for Intelligence Analysis. Poster presented at the Foresight Partner Meeting, February 19, 2015.
- 108) Buchanan, V., Lu, Y., Wang, F., Cooke, N. J., Maciejewski, R., & McNeese, N. J. (2015). An Empirical Testbed for Human-in-the-Loop Studies of Collaboration with Visualization, Poster presented at the Foresight Partner Meeting, February 19, 2015.
- 109) Buchanan, V., Cooke, N. J., & McNeese, N. J. (2015). The Cognitive Science of Intelligence Analysis, Poster presented at the Foresight Partner Meeting, February 19, 2015.
- 110) Salas, E., Stevens, R., Gorman, J., Cooke, N. J., Guastello, S., & von Davier, A. (2015). What Will Quantitative Measures of Teamwork Look Like in 10 Years? Panel talk presented at the *59th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society (pp. 235-239).
- 111) Hinski, S., Cooke, N. J., McNeese, N., Sen, A., & Patel, B. (2016). A Human Factors Approach to Building High-Performance Multi-Professional Cardiac Arrest Teams: Developing a Code Blue Team Performance Metric. Poster presented at the 2016 HFES Health Care Symposium, April 15.
- 112) Demir, M., McNeese, N. J., & Cooke, N. J. (2016). Team Communication Behaviors of the Human Automation Teaming. Paper presented at the 2016 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support, March 2016.
- 113) Cooke, N. J., Sen, A., McNeese, N. J., Khera, N., Wordingham, S. E., Airing, N., Nyquist, S. Gentry, A., Tomlinson, B. (2016). Improving Cancer Care Coordination through Team Science. Paper presented at the 2016 Science of Team Science (SciTS) Conference, May 2016.
- 114) Bradbury, A., Cooke, N. J., Shope, S. M., & Blythe, J. (2016). DEXTAR: Cyber Defense EXercises for Team Awareness Research. Poster presented at the 2016 ASU information Assurance Symposium.
- 115) Hobbins, S., Cooke, N. J., & Tang, P. (2016). Analyzing Licensee Event Reports for Improved Teamwork and Nuclear Power Plant Safety During Outages. Presentation at the 22nd Semana De Salud Ocupacional, Medellin, Columbia.
- 116) Karwowski, W., Cooke, N. J., Imada, A. S., Mosier, K., & Rempel, D. (2017). HFES Contributions to the International Ergonomics Association: Current Status and opportunities for Engagement by HFES Members. Panel talk presented at the *61st Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society.
- 117) Cooke, N. J. (2017). Human Factors/Ergonomics for Societal Transformation: A Tale of Two Cities. Presidential Address at the *61st Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society.
- 118) Demir, M., Cooke, N. J., Gran, E., Bradbury, A., Martinez, J., Niichel, M., & Rahm, K. (2018). Effects of Shared Mental Models and Restricted Language on Human-Robot Teaming. Presented at the 2018 Southwest Robotics Symposium, Tempe, Arizona.
- 119) Demir, M., Cooke, N. J., Celmer, N., Lematta, G., Yanikian, G., She, M., & Chinzi, A. (2018). Human-Autonomy Teaming in Remotely Piloted Aircraft Systems Operations Under Degraded Conditions. Presented at the *2018 Southwest Robotics Symposium*, Tempe, Arizona.
- 120) Demir, M., McNeese, N. J., & Cooke, N. J. (2018). Dyadic Team Inter action and Shared Cognition to Inform Human-Robot Teaming. *The Human Factors and Ergonomics Society Annual Meeting*. Philadelphia, PA.

- 121) Grimm, D., Demir, M., Gorman, J., & Cooke, N. J. (2018). Systems Level Evaluation of Resilience in Human- Autonomy Teaming under Degraded Conditions. *2018 IEEE Resilience Week*. Denver, CO. 124-130. DOI: 10.1109/RWEEK.2018.8473561.
- 122) McNeese, N. J., Demir, M., Cooke, N., Chiou, E., & Yanikian, G. (2018). Understanding the Role of Trust in Human-Autonomy Teaming. *IEEE Hawaii International Conference on System Sciences*. Hawaii.
- 123) Grimm, D., Demir, M., Gorman, J., & Cooke, N. J. (2018). The Complex Dynamics of Team Situation Awareness in Human-Autonomy Teaming. *2018 IEEE Conference on Cognitive and Computational Aspects of Situation Management*. Boston, MA. 103-109. DOI: 10.1109/COGSIMA.2018.8423990.
- 124) Huang, L., Johnson, C., Cooke, N., & Holder, E. (2019) Human-Agent Teaming: Interaction Metrics and Models. *Applied Human Factors and Ergonomics*, Washington, DC.
- 125) Demir, M., & Cooke, N. J. (2019). Team trust and resilience in human-autonomy teaming. *Applied Human Factors and Ergonomics*, Washington, DC.
- 126) Lematta, G. J., Coleman, P. B., Chiou, E., McNeese, N. J., Demir, M., & Cooke, N.J. (2019) Lessons learned in designing a synthetic task environment using Minecraft. *Applied Human Factors and Ergonomics*, Washington, DC.
- 127) Cooke, N. J. (2019). Simulation for Human-Agent Teaming Research. *Applied Human Factors and Ergonomics*, Washington, DC.
- 128) Craig, S. D., Roscoe, R. D., Cooke, N. J., Prewitt, D., Hsiao, S., & Schroeder, N. (2019, August) Science of Learning for Education and Readiness (SoLaR: Human System Framework for Effective Distributed Learning Organizations. Poster presented at iFEST: Innovation Instruction and Implementation in Federal E-Learning Science & Technology Conference, Alexandria, VA.
- 129) Craig, S. D., Schroeder, N. L. Roscoe, R. D., Prewitt, D., & Cooke, N. J. (2021, August). Improving the link between Science of Learning for Education and Readiness using the Learning Science Evaluation Checklist. Poster presented at iFEST: Innovation Instruction and Implementation in Federal E-Learning Science & Technology Conference. Alexandria, VA.
- 130) Craig S. D., Schroeder, N. L., Roscoe, R. D., Prewitt, D., Cooke, N. J. (2020, August). Science of Learning for Education and Readiness: Recommendations for learning organizations. Poster presented at iFEST: Innovation Instruction and Implementation in Federal E-Learning Science & Technology Conference.

INVITED TALKS AND WORKSHOPS

- 1) Cooke, N. J. (1992). Do people know what they're doing? Investigating the relationship between knowledge and performance. Colloquium given as Henry Jones Invited Speaker, North Carolina State University, November, Raleigh, NC.
- 2) Cooke, N. J. (1994). Cognitive task analysis and its role in job analysis. Workshop given to the Peace Officer Standards and Training Commission, State of California, July 14 and 15, Sacramento, CA.
- 3) Gillan, D. J., & Cooke, N. J. (1994). Methods of perceptual and cognitive research applied to interface design and testing. Tutorial presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
- 4) Cooke, N. J., & Gillan, D. J. (1994). Cognitive methods applied to human factors. Workshop presented at the 38th annual meeting of the Human Factors and Ergonomics Society, October 24-28, Nashville, TN.
- 5) Cooke, N. J., & Gillan, D. J. (1995). Psychological scaling methods. Workshop given to Microsoft's Usability Group, January 27, Redmond, WA.
- 6) Gillan, D. J., & Cooke, N. J. (1995). Methods of cognitive analysis for HCI. Tutorial presented at CHI '95 - Human Factors in Computing Systems Conference, May 7-11, 1995, Denver, CO.
- 7) Cooke, N. J. (1996). Knowledge elicitation and assessment methods. Workshop presented to Naval Air Warfare Center, Training Systems Division, March 6, Orlando, FL.
- 8) Cooke, N. J. (1998). KNOT: A tool for representing conceptual structure. Invited talk presented at Sun Break '98: Conference on Organizations, February 6-8, Department of Management, New Mexico State University, Las Cruces, NM.
- 9) Schoenfeld, V. S., Shapiro, R. G., Brown, M. L., Jahns, D. W., Andre, A. D., Lund, A. M., Eggemeier,

- F. T., & Cooke, N. J. (1998). To Ph.D. or not to Ph.D.? That is the question. Panel presentation at the 42nd annual meeting of the Human Factors and Ergonomics Society, October 5-9, Chicago, IL.
- 10) Cooke, N. J. & Shope, S. M. (1999). CERTT-UAV Task. Invited talk and demonstration presented at the Scaled Worlds Symposium, June 24-27, Athens, GA.
 - 11) Cooke, N. J. (1999). Lessons learned from the trenches: A panel on the application of knowledge methods to training evaluation. Panel presentation with Sward, D., Foltz, P., Gillan, D., Goldsmith, T., & Schvaneveldt, R. at Schvanfest '99, Festschrift in Honor of Roger W. Schvaneveldt, September 10-12, Las Cruces, NM.
 - 12) Cooke, N. J., & Shope, S. M. (2001). The CERTT-UAV Synthetic Task: Validity, Flexibility, Availability. Paper presented at the Air Force Office of Scientific Research Workshop on Team Performance, October 16-17, Fairfax, VA.
 - 13) Cooke, N. J. (2001). Eliciting the Knowledge of Individuals and Teams. Invited talk San Diego Center for Patient Safety, Visiting Professor Series, December 12, San Diego, CA.
 - 14) Cooke, N. J. (2001). Team Cognition: What Have We Learned? Paper presented at the Air Force Office of Scientific Research Workshop on Team Performance, October 16-17, Fairfax, VA.
 - 15) Cooke, N. J., Gorman, J., & Pedersen, H. (2002). Toward a Model of Organizational Risk. Paper presented at NASA HORM Workshop, June 13-14, Moffett Field, CA.
 - 16) Cooke, N. J. (2002). Cognitive Task Analysis for Teams. On-line CTA Resource Seminar sponsored by Aptima and Office of Naval Research, October 11, US Positioning, Las Cruces, NM.
 - 17) Cooke, N. J. (2002). Diagnosing Team Performance Through Team Cognition, Paper presented at ONR-NMSU Workshop on New Directions in Cognitive Science, October 25-26, New Mexico State University, Las Cruces, NM.
 - 18) Cooke, N. J., Gorman, J., & Pedersen, H. (2002). My Favorite Ways to Measure Team Stuff. Paper presented at NASA HORM Workshop, November 13-14, Moffett Field, CA.
 - 19) Cooke, N.J. (2003). Measuring Collaborative Cognition. ONR Workshop on Collaborative Knowledge Management, January 14-16, College Park, MD.
 - 20) Cooke, N.J. (2003). Assessing Team Cognition. Invited Talk, Los Alamos National Laboratory, June 2, Los Alamos, NM.
 - 21) Cooke, N.J., & Kiekel, P. A. (2003). Team Cognition. AFRL-Rome sponsored seminar on Cognitive Systems Engineering. August 5-7, Hamilton, NY.
 - 22) Cooke, N.J. (2003). Assessing Team Cognition. Invited talk to the Air Force Research Lab. August 28, Mesa, AZ.
 - 23) Cooke, N.J. (2003). Assessing Team Cognition. Invited talks to Arizona State University's Cognition and Behavior Seminar. September 22.
 - 24) Cooke, N. J. (2003). Types of academic institutions and why you might want to work in one. Paper presented at the APA sponsored workshop on Entering the Academic Marketplace: Advice from Experts at 47th annual meeting of the Human Factors and Ergonomics Society, October 13, Denver, CO.
 - 25) Cooke, N. J. (2003). Playing well with others: Emotional intelligence meets team performance. Paper presented at ETS Workshop: Emotional Intelligence: Knowns and Unknowns, November 15, Princeton, NJ.
 - 26) Cooke, N.J. (2003). Command-and-Control Teams: The Outcome of Cognitive Engineering. Journeys of the Mind Series, November 18, Arizona State University East, Mesa, AZ.
 - 27) Cooke, N.J., & Gorman, J. (2004). Team Communication and Cognition. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 13-15, San Diego, CA.
 - 28) Cooke, N. J. (2004). Team cognition in distributed command-and-control. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, March 9-10, Chandler, AZ.
 - 29) Cooke, N. J. (2004). Command-and-Control Coordination: Cognitive Processing at the Team Level. Paper presented at Human-Technology Integration Colloquium Series, Air Force Research Laboratory, Human Effectiveness Directorate, May 19, Wright-Patterson AFB, OH.
 - 30) Cooke, N. J. (2004). Opening Session Overview. Human Factors of UAVs: Manning the Unmanned Workshop, May 24-25, Chandler, AZ.
 - 31) Cooke, N. J. (2004). Team Coordination and UAV Operations. Human Factors of UAVs: Manning the Unmanned Workshop, May 24-25, Chandler, AZ.
 - 32) Cooke, N. J. (2004). Team Cognition, Coordination, and Communication: Effects of Distributed Versus Co-located Environments. Invited Symposium. American Psychological Society 16th Annual Convention, May 28, Chicago, IL.

- 33) Cooke, N. J. (2004). Design for Coordination and Control. National Academies of Science workshop on Scalable Interfaces for Air and Ground Military Robots, November 11-12, Washington, DC.
- 34) Cooke, N. J. (2004). Where's the Sharing in Shared Mental Models? Invited talk presented at ARI/UCF team workshop, December 16, Orlando, FL.
- 35) Cooke, N.J. (2005). Communication in Team Cognition. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 13-15, San Diego, CA.
- 36) Cooke, N.J. (2005). Emergent Team Cognition or What Was Wrong With The US Olympic Basketball Team? Colloquium presented at Texas Tech University, February 7, Lubbock, TX.
- 37) Cooke, N.J. (2005). Emergent Team Cognition or What Was Wrong With The US Olympic Basketball Team? Colloquium presented at Georgia Tech University, March 30, Atlanta, GA.
- 38) Cooke, N. J. (2005). Acquisition and Retention of Team Coordination in Command-and-Control: Data, Metrics, and Models. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, April 18-19, St. Augustine, FL.
- 39) Cooke, N.J. (2005). Emergent Team Cognition or What Was Wrong With The US Olympic Basketball Team? Colloquium presented at North Dakota State University, April 22, Fargo, ND.
- 40) Cooke, N. J., Connor, O., & Pedersen, H. (2005). Acquisition and Retention of Team UAV Skills. Paper presented at the Second Annual Human Factors of UAVs Workshop, May 25-26, Mesa, AZ.
- 41) Cooke, N. J. (2005). Lessons Learned from My Career. Presented at Student Professional Development Day at the 49th annual meeting of the Human Factors and Ergonomics Society, September 26-30, Orlando, FL.
- 42) Cooke, N.J. (2005). Human Factors of Homeland Security. Overview talk given at the Homeland Security Science Forum sponsored by Human Factors and Ergonomics Society and the Federation of Behavioral, Psychological, and Cognitive Sciences. November 17, Washington, DC.
- 43) Cooke, N. J. (2006). Cognitive Engineering Research. Invited Talk to ASU Discovery Tours, January 18, 2006.
- 44) Cooke, N. J. (2006). Automatic Tagging of Macrocognitive Processes Through Communication Analysis. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 24-26, Cambridge, MA.
- 45) Cooke, N. J. (2006). Designing for Collaboration. Invited talk at MIT's Humans and Technology Symposium, January 27, Cambridge, MA.
- 46) Cooke, N. J. (2006). When mixed up teams are good teams: The Development of Coordination in Command and Control Teams. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, April 21-22, Dayton, OH.
- 47) Cooke, N. J. (2006). Designing for Collaboration. Invited talk at Ohio State University, Department of Industrial, Welding and Systems Engineering, June 6, Columbus, OH.
- 48) Cooke, N. J. (2006). Talk to Preparing Future Faculty group at Arizona State University at the Polytechnic Campus, October 7, Mesa, AZ.
- 49) Cooke, N. J. (2007). Panel Participant for Barbara Ainsworth's Physical Activity, Nutrition, and Wellness doctoral program seminar.
- 50) Cooke, N. J. & Gorman, J. C. (2007). Automatic Tagging of Macrocognitive Collaborative Processes through Communication Analysis. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 23, Orlando, FL.
- 51) Cooke, N. J. (2007). Measuring Team Cognition. Invited talk to the National Research Council Committee on Human Factors, February, 26, Irvine, CA.
- 52) Cooke, N. J. & Gorman, J. C. (2007). Measuring and Modeling Team Coordination Dynamics. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, March 22-23, Dayton, OH.
- 53) Cooke, N. J. (2007). Invited participant of the Macrocognitive Metrics Conference, June 14, Columbus, OH.
- 54) Cooke, N. J. (2007). Team Cognition. Invited Colloquium, Biomedical Informatics, ASU, November 8, Phoenix, AZ.
- 55) Cooke, N. J. (2007). Technology for Collaboration: Solution or Problem? Keynote Speaker, World Usability Day Phoenix, November 8, Mesa, AZ.
- 56) Cooke, N. J. (2007). UAV Podcast hosted by Texas Tech Psychology Department, November 12.
- 57) Cooke, N. J. (2007). Teams and Coordination. ASU Polytechnic Faculty Brown Bag Series, November 28, Mesa, AZ.

- 58) Cooke, N. J. & Gorman, J. C. (2008). Automatic Tagging of Macrocognitive Collaborative Processes through Communication Analysis. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 15, Orlando, FL.
- 59) Cooke, N. J. & Shope, S. M. (2008). Systems for Understanding & Measuring Macrocognition in Teams: Task Environment Development (SUMMIT-TED). Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 16, Orlando, FL.
- 60) Cooke, N. J. (2008). Unmanned Aircraft Systems: Human Factors Issues. NTSB Forum on the Safety of Unmanned Aircraft Systems, April 30, 2008, Washington, DC.
- 61) Cooke, N. J. (2008). Team Cognition. Invited lecture for ASU's Biomedical Informatics Foundation class, April 1 & 3, Phoenix, AZ.
- 62) Cooke, N. J., & Myers, C. (2008). Agent-Based Approaches to Macrocognition II: An ACT-R Model of a Synthetic Teammate. June 3, Havre de Grace, MD.
- 63) Cooke, N. J. (2008). The Wizards of US (Unmanned Systems): Pay Attention to the Humans "Behind the Curtain." September 3, Brest, France.
- 64) Cooke, N. J. & Gorman, J. C. (2008). Measuring Interaction. Invited lecture for ASU's Biomedical Informatics Foundation class, November 18, Phoenix, AZ.
- 65) Cooke, N. J. (2008). Measures of Team Cognition in the Context of Unmanned Aerial Systems Ground Crews. MIT Colloquium, December 16, Cambridge, MA.
- 66) Cooke, N. J. (2009). A Tale of Two SEAs: Lessons Learned from Building Synthetic Environments for Team Research. ONR Synthetic Environments for Assessment Workshop, January 30, Arlington, VA.
- 67) Cooke, N. J. (2009). Coal Mining Safety: Failures in Human Systems Integration. Presentation to the Committee on Human Systems Integration, National Research Council, February 12, Washington, DC.
- 68) Cooke, N. J. (2009). Coordination of unmanned aerial systems ground crews. Heterogeneous Unmanned Networked Teams Workshop, March 9, Tempe, AZ.
- 69) Cooke, N. J. (2009). Team Cognition in Unmanned Aerial Vehicles. Invited lecture presented at the 2009 American Psychological Association Annual Convention, August 6, Toronto, Ontario, CA.
- 70) Cooke, N. J. (2009). UASs from a Human Factors Perspective. Human Factors of UAVs workshop: AUVSI North America Conference, August 11, Washington, DC.
- 71) Cooke, N. J. (2009). Interactive Team Cognition. Keynote at the Cognitive Research Exchange (CoRE) Workshop, Annual Meeting of the Association of Information Systems (AIS), December 15, Phoenix, AZ.
- 72) Cooke, N. J. & Hallbeck, S. (2009). Human Factors. Presentation at the Veterans Engineering Resource Center Leaning Event, September 17, Omaha, NE.
- 73) Cooke, N. J. (2009). Interactive Team Cognition. Board of Behavioral, Cognitive, and Social Sciences, National Research Council, National Academy of Science, October 8, Woods Hole, MA.
- 74) Cooke, N. J. (2009). Unmanned Aerial Systems: Pay Attention to the Humans "Behind the Curtain." Presentation to the Good Ol' Boys (retirement community), October 15, Scottsdale, AZ.
- 75) Cooke, N. J. (2009). The Art of Getting Published. Presentation at Student Development Day, Annual Meeting of the Human Factors and Ergonomics Society, October 19, San Antonio, TX.
- 76) Cooke, N. J. (2009). Human Factors of Unmanned Aerial Systems. Presentation at the Stakeholders Workshop for the Proposed Unmanned Aerial System Center for Simulation and Training in Mesa, AZ. October 23, Chandler, AZ.
- 77) Cooke, N. J. (2009). The Science of Psychology. Presentation to SRP Student Group, November 4, Mesa, AZ.
- 78) Cooke, N. J. (2009). Applied Cognitive Psychology. Presentation to Gilbert High School Career Development Class, November 13, Gilbert, AZ.
- 79) Cooke, N. J. (2009). Interactive Team Cognition. Keynote at the Cognitive Research Exchange (CoRE) Workshop, Annual Meeting of the Association of Information Systems (AIS), December 15, Phoenix, AZ.
- 80) Cooke, N. J. (2010). Interactive Team Cognition. Invited lecture at Charles River Analytics, March 29, Cambridge, MA.
- 81) Cooke, N. J. (2010). Interactive Team Cognition. Invited lecture at MIT Lincoln Labs, March 30, Cambridge, MA.
- 82) Cooke, N. J. (2010). Human Systems Integration, Team Cognition, and Designing for Collaboration. Biomedical Informatics class lecture, April 22, Phoenix, AZ.
- 83) Cooke, N. J., Rajivan, P., Venkatanarayanan, S. (2010). A Testbed for Studies of Team Cognition in the Cyber Security Domain. Invited panel lecture at ASU's Third Annual Workshop on Information

- Assurance Research and Information, May 5, Tempe, AZ.
- 84) Cooke, N. J., Rajivan, P., Venkatanarayanan, S. (2010). A Testbed for Studies of Team Cognition in the Cyber Security Domain. Invited talk at ARO-MURI on Cyber Situation Awareness Review Meeting, August 23-24, UCSB, Santa Barbara, CA.
 - 85) Cooke, N. J. (2010). The Case of Bored Teams. Invited panel presentation at 54th Annual Meeting of the Human Factors and Ergonomics Society, September 28, San Francisco, CA.
 - 86) Cooke, N. J. (2011). Human Factors and Healthcare. Invited panelist for Continuing Quality in Parallel Circuits: HSR&D and VERC Collaboration, HSR&D National Meeting, National Harbor, MD.
 - 87) Cooke, N. J. (2011). A Human Systems Integration Approach to Integrating “Unmanned” Systems into the National Airspace. Presented at Human Factors UAS in the NAS workshop, May 23, Washington, DC.
 - 88) Cooke, N. J. (2011). Interactive Team Cognition. Presented at SMACS Brown Bag, August 31, Arizona State University, Mesa, AZ.
 - 89) Cooke, N. J., Rajivan, P., Champion, M., & Jariwala, S. (2011). Applying cognitive engineering to cyber situation awareness. Presented at ARO MURI Review, September 8, George Mason University, Fairfax, VA.
 - 90) Cooke, N. J. (2011). A Panel Session on Human-Automation Challenges for the Control of Unmanned Aerial Systems. Invited panelist for the 55th annual meeting of the Human Factors and Ergonomics Society, September 22, Las Vegas, NV.
 - 91) Cooke, N. J. (2012). Combining teams with technology to solve global challenges. ASU President’s Community Enrichment Program, ASU Poly, March 27, Mesa, AZ.
 - 92) Cooke, N. J. (2012). Lightening the Information Load through Team Cognition. Naval Research Advisory Committee on Lightening the Information Load, July 26., San Jose, CA.
 - 93) Cooke, N.J., (2014). HFES Fellows Panel. *At the 58th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA.
 - 94) Cooke, N. J. (2014). Simulations as research testbeds. Modeling and Simulation Conference, March 12-13, Scottsdale, AZ.
 - 95) Cooke, N. J. (2014). Five out of five stars: Writing to the Reviewer. Panelist, Arizona State University, March 28, Tempe, AZ.
 - 96) Cooke, N. J. (2015). How the Science of Teams Can Inform Team Science. Invited Lecture, Team Science Retreat, Wake Forest School of Medicine of Wake Forest Baptist Medical Center, March 13, Wake Forest, NC.
 - 97) Cooke, N. J. (2015). Enhancing the Effectiveness of Team Science. Briefing at the National Science Foundation, April 22, Washington, DC.
 - 98) Cooke, N. J., Cummings, J, Fiore, F., Hall, K., Jackson, J., Kozlowski, S., Olson, J., Stokols, D., and Hilton, M. (2015). Featured Panel: National Academy of Sciences Report: SciTS. Science of Team Science Meeting, National Institutes of Health, June 3, Bethesda, MD.
 - 99) Cooke, N. J. (2015). Keynote Lecture: Interactive Team Cognition: Focusing on Team Dynamics, 14th European Congress of Sport Psychology, July 18, Bern Switzerland.
 - 100) Cooke, N. J. (2015). What is Human Systems Integration and How It Does and Does Not Relate to Human Factors and Ergonomics? Keynote Address. Meeting of the Houston Chapter of the Human Factors and Ergonomics Society, May 29, Houston, TX.
 - 101) Cooke, N. J. (2015). Enhancing the Effectiveness of Team Science. Briefing at the National Academies, September 18, Washington, DC.
 - 102) Cooke, N. J. (2015). SciTS NRC Report Review: Key Challenges Facing Team Science. Team Science Summit, Arizona State University, September 25, Tempe, AZ.
 - 103) Cooke, N. J. (2015). Tackling Difficult Research Problems via Application of Transdisciplinary Methods. Panel presentation at APLU Annual Meeting, November 15, Indianapolis, IN
 - 104) Cooke, N. J. (2016). Growth of Team Science: Challenges and Opportunities. Panel Presentation at AAAS 2016, February 12, Washington, DC.
 - 105) Cooke, N. J. (2016). Interactive Team Cognition: From Remotely Piloted Aircraft Systems Control to Healthcare. Invited Seminar at University of Wisconsin-Madison, March 4, Madison, WI.
 - 106) Cooke, N. J. (2016). Measuring Team Performance. Invited talk to the National Academies of Sciences, Engineering, and Medicine’s Board on Human System Integration, April 20, Washington, D.C.

- 107) Cooke, N. J. (2016). Interactive Team Cognition: Making Teams Work. Invited Seminar at the Georgia Institute of Technology, November 15, Atlanta, GA.
- 108) Cooke, N. J. (2016). Interactive Team Cognition: Making Teams Work. Invited talk to the Southern Ohio Chapter of the Human Factors and Ergonomics Society, December 8, Dayton, OH.
- 109) Cooke, N. J. (2017). Interactive Team Cognition: Making Teams Work. Invited Colloquium, North Carolina A&T University, April 6, Greensboro, NC.
- 110) Cooke, N. J. (2017). How Human Factors/Ergonomics Can Make the World a Better Place. Keynote, North Carolina A & T University Industrial Engineering Awards Banquet, April 6, Greensboro, NC.
- 111) Cooke, N. J. (2017). How Can Human Factors/Ergonomics Take on the NAE Grand Challenges? Human Factors and Ergonomics Society Webinar, April 19.
- 112) Cooke, N. J. (2017). Synthetic Teammates as Team Players: Coordination of Human and Synthetic Teammates. NORDEFECO, April 26, Halmstad, Sweden.
- 113) Cooke, N.J. (2017). Interactive Team Cognition and DLR-COCO. Invited Discussant, November 9-10, Halmberg, Germany.
- 114) Cooke, N. J. (2017). Human Systems Integration and its Role in Solving Big Societal Problems. Keynote for 2017 Meeting of the Israeli Ergonomics and Human Factors Association, November 13, Herzliya, Israel.
- 115) Cooke, N.J. (2018). Human Systems Integration and its Role in Solving Big Societal Problems. MIE Seminar Series, University of Toronto, February 14, Toronto, Canada.
- 116) Cooke, N. J. (2018). Human Systems Integration and its Role in Solving Big Societal Problems. Clemson University Tiger Talk, April 13, Clemson, SC.
- 117) Cooke, N. J. (2018). Interactive Team Cognition: Making Teams Work. CIEHF Institute Lecture, April 23, Birmingham, UK.
- 118) Cooke, N. J. (2018). Interactive Team Cognition: Discoveries (4) and Promises (4). Team Science Summit, Rice University, May 4, Houston, TX.
- 119) Cooke, N. J. (2018) Human-Autonomy Teaming: Can Autonomy be a Good Team Player, October 8, Sandia National Labs, Albuquerque, NM.
- 120) Cooke, N. J. (2018). Human-Autonomy Teaming: Can Autonomy be a Good Team Player? November, Levin Center, ASU, Tempe, AZ.
- 121) Cooke, N. J. (2019). Human-Autonomy Teaming: Can Autonomy be a Good Team Player, May 8, Texas A&M.
- 122) Wanchisen, B., Bhatt, S., Wolfe, J., Cooke, N. & Treverton, G. (2019). A Decadal Survey of the Behavioral and Social Sciences: A Research Agenda for Advancing Intelligence Analysis, March, 2019, International Conference of Psychological Science, Paris, France.
- 123) Cooke, N. J. (2019). Human-Autonomy Teaming: Can Autonomy be a Good Team Player, April, Cogsima, Las Vegas, NV.
- 124) Cooke, N. J. (2019). Human-Autonomy Teaming: Can Autonomy be a Good Team Player, April, 2019. Human Systems Conference, Aberdeen, MD.
- 125) Cooke, N. J. (2019). Human Systems Engineering and its Role in Grand Challenges. September, 2019. NAE Grand Challenge Speaker Series, ASU, Tempe, AZ.
- 126) Cooke, N. J. (2020). ASU's Center for Human, Artificial Intelligence, and Robot Teaming. April 9, 2020, ASU School for Arts, Media, and Engineering, Virtual.
- 127) Cooke, N. J. (2020). Human-Autonomy Teaming: Can Autonomy be a Good Team Player? February 12, 2020, Psychology, Rice University, Houston, TX.
- 128) Cooke, N. J. (2020). Human-Autonomy Teaming for the Future of Work. Work in the 21st Century: Automation, Workers, and Society. February 13-14, 2020, Rice University, Houston, TX.
- 129) Cooke, N. J. & Fiore, S. (2020). The Magic of Teams Part 1: The ABCs of Teams, Aptima MINDWORKS Podcast.
- 130) Cooke, N. J. (2020). Lessons Learned on the Winding Road between one Unspoken Language to Another. Talk to HFES Womens Group.
- 131) Cooke, N. J. (2020). Center for Human, AI, and Robot Teaming, ARCNet Lightning Talk, Nov. 9.
- 132) Cooke, N. J. (2021). Human-AI-Robot Teaming. Talk to Kiwanis group, Feb. 2021.
- 133) Cooke, N. J. (2021). AI development and implementation in healthcare. Invited talk at Mayo Clinic AI Symposium, May, 2021. Cooke, N. J. (2021). Resilient teams for a shatterproof Arizona. Talk to OECOP, Aug. 2021.

- 134) Cooke, N. J. (2021). Making effective teams. CHS Affinity Network and Translational Teams (ANTT) annual conference, Sept. 2021.
- 135) Cooke, N. J. (2021). Effective teamwork for DOE laboratories of the future. Talk to US Department of Energy., Oct. 2021. Cooke, N. J. (2021). Human Systems Integration for Human-Machine Teaming for National Security, Grand Challenge Scholars Program talk, Nov. 2021.
- 136) Cooke, N. J. (2021). Human systems integration for human-machine teaming. Keynote for INCOSE: Human Systems Integration, Nov. 2021.
- 137) Cooke, N. J. (2021). Interactive Team Cognition: Making Teams Work. Talk to FAA, Aerospace Human Factors Research, Dec. 2021.
- 138) Cooke, N.J. (2022) Human, Artificial Intelligence, and Robot Teaming and the Space Challenge. AIAA PHX, February 2022.
- 139) Cooke, N.J. (2022). Interactive Team Cognition for Humans and Machines. Penn State IME Seminar Series, March 2022.
- 140) Cooke, N.J. (2022). Interactive Team Cognition for Humans and Machines. ASCE DSA talk on “Integrated Human-Machine Intelligence” June 2022
- 141) Cooke, N. J. (2022). Interactive Team Cognition. Brian Gerber Ft. Bragg group. December 2022
- 142) Cooke, N. J. (2022). Trusted Distributed Human-Machine Teaming for Safe and Effective Space-Based Missions. Interplanetary Initiative group. December 2022.
- 143) Cooke (2023). Human-Artificial Intelligence Teaming. The 5th International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) & The 46th (Inter) National Systems Conference (NSC) Evolution of Homo Sapiens to Homo Spiritualis for Better Worldliness. June 2023.
- 144) Cooke, N. J. Mile 2 Cool Person Series. July 2023.
- 145) Cooke, N. J., Enhancing the Effectiveness of Team Science: 2015 and Beyond. National Renewable Energy Laboratory. July 2023.
- 146) Cooke, N. J. Human-Artificial Intelligence Teaming. Boeing Human Engineering Community of Excellence Symposium. June 2023.
- 147) Cooke (2023). Interactive team cognition for humans and machines. US Army DEVCOM Soldier Center. September 2023.
- 148) Cooke (2023). Interactive team cognition for humans and machines. Kennesaw State University SPCEET Research Seminar Series. November 2023.

WORKSHOPS ORGANIZED

- Cooke, N. J. & Pringle, H. (2004). Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, NASA, and US Positioning, May 24-25, Chandler, AZ.
- Cooke, N. J. & Pringle, H. (2005). Second Annual Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, FAA, and Microanalysis and Design, May 25-26, Mesa, AZ.
- Chair of Team Cognition session for DARPA Augmented Cognition workshop, July, 2005, Las Vegas, NV.
- Cooke, N. J. & Andrews, D. (2006). Third Annual Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, FAA, & Research Integrations, May 24-26, Mesa, AZ.
- Cooke, N. J., Pedersen, H.K., & Winner, J. L. (2007). Fourth Annual Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, L3 Link, & Research Integrations, May 21-23, Chandler, AZ.
- Cooke, N. J. (2008). Fifth Annual Human Factors of UAVs Workshop: Manning the Unmanned; Human Factors Issues in Imagery Analysis Using Unmanned Aerial Vehicles. CERI hosted workshop, sponsored by AFRL, May 15, Apache Junction, AZ.
- Cooke, N. J. (2009). Sixth Annual Human Factors of UAVs Workshop. AUVSI North America Conference, August 11, Washington, DC
- Cooke, N. J., & Gorman, J. C. (2009). Communications Analysis for Assessing Collaboration. Workshop at the 53rd Annual Meeting of the Human Factors and Ergonomics Society, October 19, San Antonio, TX.

- Cooke, N. J. & Shope, S. S. (2009). UAS Simulation and Training Center Stakeholders Workshop, October 23, Chandler, AZ.
- Cooke, N. J. (2010). Communication Analysis Workshop. February 16-18, Tempe, AZ.
- Cooke, N. J., & Gorman, J. C. (2010). Communications Analysis for Assessing Collaboration. Workshop at the 54th Annual Meeting of the Human Factors and Ergonomics Society, September 27, San Francisco, CA.
- Cooke, N. J., McNeese, M., & Hall, D. (2011). A Cyber Situation Awareness Workshop. February 8-11, Gilbert, AZ.
- Cooke, N. J. (2013). ARO Cyber Situation Awareness MURI Review, October 2013.
- Cooke, N. J. (2014). Remotely Piloted Aerial Systems: A Summit. August 4-5, Dayton, OH.
- Cooke, N. J. (2017). Workshop on Human Systems Integration. November 14, Herzliya, Israel
- Cooke, N. J., & Myers, C. (2019). Workshop on the Synthetic Teammate Project, September 26-27, Mesa, AZ..
- Cooke, N. J., Gorman, J.C., Demir, M., & Lijenstolpe, M. (2023). Management of Distributed Heterogeneous Systems of Humans and Machines in Space and on Earth

SCIENCE ADVOCACY

- APA Science Advocacy Training Workshop, Human Factors and Aviation Safety Research, July 18-19, 1999, Washington, D.C.
- APA Science Advocacy Training Workshop, Psychological Science and the Military, September 27-29, 2003, Washington, D.C.
- Homeland Security Science Forum sponsored by Human Factors and Ergonomics Society and the Federation of Behavioral, Psychological, and Cognitive Sciences, November 17, 2005, Washington, DC.
- White House Office of Science and Technology Policy Briefing on Human Factors of UAVs, April 6, 2006.
- APA 2007 Science Leadership Conference: Adventures in Advocacy: Training the Civic Scientist, October 13-15, 2007, Washington, DC.
- American Psychological Association facilitated Congressional meetings on Unmanned Aerial Systems in the National Airspace and human systems integration, August 13, 19, 2014, Washington, DC.
- Visit to Congressman Matt Salmon's Office on behalf of the American Psychological Association's *Stand for Science* program, April 22, 2016, Gilbert, AZ.
- Congressional Briefing speaker on Autonomous Systems and the Role of the Human, May 31, 2016, Washington, DC.