

Kimberly Stowers

KIMBERLY STOWERS

January 15th, 2018

361 Stadium Dr,
Tuscaloosa, AL 35487
(352) 406-5258
kim.stwrs@gmail.com
www.kimberlystowers.com

EDUCATION

- Aug. 2017** **Ph.D., Cognitive Human Factors Psychology, University of Central Florida**
Adviser: Peter A. Hancock, Ph.D., D.Sc.
Dissertation: Moral Blameworthiness and Trustworthiness: The Role of Accounts and Apologies in Perceptions of Human and Machine Agents
- Aug. 2015** **M.S., Modeling and Simulation, University of Central Florida**
Adviser: Eduardo Salas, Ph.D.
- May 2013** **B.S., Honors in Psychology, University of Central Florida**
Adviser: Eduardo Salas, Ph.D.
Thesis: Stress and performance in uncertainty-avoiding individuals

PROFESSIONAL EXPERIENCE

- Aug. 2017 – Current** **Assistant Professor, University of Alabama**
Culverhouse College of Commerce, Department of Management
- Feb. 2017 – Aug. 2017** **Intern, Soar Technology, Inc.**
Supervisors: Amanda Bond, M.S., and Robert Wray, Ph.D.
- May 2013 – Aug. 2017** **Graduate Research Assistant, University of Central Florida**
Supervisors: Drs. Peter A. Hancock, Eduardo Salas, & Jessie Chen

REFEREED JOURNAL MANUSCRIPTS

Published or Accepted

- Chen, J.Y.C., Lakhmani, S., **Stowers, K.**, Selkowitz, A., Wright, J., Barnes, M.J. (In Press). Situation awareness-based agent transparency and human-autonomy teaming effectiveness. *Theoretical Issues in Ergonomics Science*.
- Stowers, K.**, Oglesby, J.M., Sonesh, S.C., Leyva, K., Iwig, C. & Salas, E. (2017). An updated framework for the development of metrics in human-machine systems. *Human Factors*, 59(2), 172-188.
- Stowers, K.**, Leyva, K., Hancock, G., Hancock, P.A. (2016). Life or death by robot? *Ergonomics in Design: The Quarterly of Human Factors Applications*, 24(3), 17-22.

In Preparation

- Stowers, K.**, Sonesh, S.C., Iwig, C., & Salas, E. (In progress). The Impact of Technology on Human Performance: A Review and Call to Research.
- Stowers, K.**, Wohleber, R.W., Newton, O.B., Chen, J.Y.C., Barnes, M.J. (In progress). How to communicate with your human teammate: A machine's guide to interface transparency.
- Stowers, K.**, Hancock, P.A. (In progress). The evolution of self-driving vehicles.
- Stowers, K.**, Marlow, T., Hughes, A., Volante, W., Sanders, T., Hancock, P.A. (In progress). Building a trustworthy robot: What features matter?

CHAPTERS IN EDITED VOLUMES

- Stowers, K.**, & Wray, R. (In press). Assessing the Role of Behavioral Markers in Adaptive Learning. In *Applied Human Factors and Ergonomics*. Springer.
- Wray, R.E., & **Stowers, K.** (2018). Interactions between learner assessment and content requirements: A verification approach. In T. Andre (Ed.), *Advances in Human Factors in Training, Education, and Learning Sciences* (pp. 36-45). Cham, Switzerland, Springer.
- Stowers, K.**, Kasdaglis, N., Rupp, M., Chen, J.Y.C., Barber, D., Barnes, M.J. (2017). Insights into human-agent teaming: Intelligent agent transparency and uncertainty. In P. Savage-Knepshield and J. Chen (Ed.), *Advances in Human Factors in Robots and Unmanned Systems*, (pp. 149-160). Cham, Switzerland: Springer.
- MacArthur, K. R., **Stowers, K.**, & Hancock, P. A. (2017). Human-robot interaction: Proximity and speed – Slowly back away from the robot! In P. Savage-Knepshield and J. Chen (Ed.), *Advances in Human Factors in Robots and Unmanned Systems*, (pp. 365-374). Cham, Switzerland: Springer.
- Kasdalis, N., & **Stowers, K.** (2016). Beyond human factors: The role of human centered design in developing a safety-critical system. In C. Stephanidis (Ed.), *HCI International 2016 – Posters' Extended Abstracts* (pp. 345-351). Cham, Switzerland: Springer.
- Kasdaglis, N., Barnard, T., & **Stowers, K.** (2016). Trajectory Recovery System: Angle of attack guidance for inflight loss of control. In D. Harris (Ed.), *Engineering Psychology and Cognitive Ergonomics* (pp. 397-408). Cham, Switzerland: Springer.
- Barnes, M., Chen, J., Wright, J., & **Stowers, K.** (2016). Human-agent teaming for effective multirobot management: Effects of agent transparency. In D. Harris (Ed.), *Engineering Psychology and Cognitive Ergonomics* (pp. 169-178). Cham, Switzerland: Springer.

REFEREED PROCEEDINGS MANUSCRIPTS

- Musaev, A., **Stowers, K.**, Kam, J. (In press). Harnessing Data to Create an Effective Drought Management System. Accepted to *The 15th International Conference on Information Systems for Crisis Response and Management*.
- Stowers, K.**, & Mouloua, M. (In press). Human Computer Interaction Trends in Healthcare: An Update. Accepted to *Human Factors and Ergonomics in Healthcare*.

- Kessler, T., **Stowers, K.**, Brill, J.C., Hancock, P.A. (2017). Comparisons of human-human trust with other forms of human-technology trust. *Proceedings of Human Factors and Ergonomics Society* 61(1), 1303-1307.
- Chen, J.Y.C., Barnes, M.J., Wright, J.L., **Stowers, K.**, Lakhmani, S.G. (2017). Situation awareness-based agent transparency for human-autonomy teaming effectiveness. In *Micro-and Nanotechnology Sensors, Systems, and Applications IX (Vol. 10194, p. 101941V)*. *International Society for Optics and Photonics*.
- Stowers, K.**, Kasdaglis, N., Newton, O., Lakhmani, S., Wohleber, R., Chen, J.Y.C. (2016). Intelligent agent transparency: The design and evaluation of an interface to facilitate human and artificial agent collaboration. *Proceedings of Human Factors and Ergonomics Society*, 60(1), 1706-1710.
- Volante, W.G., Merz, M., **Stowers, K.**, Hancock, P.A. (2016). Sleep, workload and boredom: subject matter expert insights. *Proceedings of Human Factors and Ergonomics Society*, 60(1), 1833-1837.
- Schroeder, B.L., Leyva, K., **Stowers, K.**, Lewis, J.E., Sims, V.K. (2016). Investigating usability, user preferences, ergonomics, and player performance in StarCraft II. *Proceedings of Human Factors and Ergonomics Society*, 60(1), 1210-1214.
- Chen, J.Y.C., Barnes, M., Selkowitz, A., **Stowers, K.** (2016). Effects of agent transparency on human-autonomy teaming effectiveness. *IEEE International Conference on Systems, Men, and Cybernetics*.
- Chen, J.Y.C., Barnes, M.J., Selkowitz, A., **Stowers, K.**, Lakhmani, S., Kasdaglis, N. (2016). Human-autonomy teaming and agent transparency. *Proceedings of the 21st International Conference on Intelligent User Interfaces*, 28-31.
- Stowers, K.** (2015). Communication between human factors psychologists and engineers: Challenges and solutions. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 59, 1732-1735.
- Sanders, T.L., Volante, W., **Stowers, K.**, Kessler, T., Gabrecht, K., Harpold, B., Oppold, P., Hancock, P.A. (2015). The influence of robot form on trust. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 59, 1510-1514.
- Iwig, C., Oglesby, J.M., **Stowers, K.**, Leyva, K., Shimono, M., Salas, E. (2015). Spaceflight task contexts for long duration exploration missions: Application to measurement of human automation interaction. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 59, 941-945.
- Oglesby, J.M., **Stowers, K.**, Leyva, K., Dietz, A., Sonesh, S., Burke, S. Salas, E. (2014). Assessing human-automation system safety, efficiency, and performance: Developing a metrics framework. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 58, 1149-1153.
- Hughes, A. M., Volante, W. G., **Stowers, K.**, Leyva, K., Oglesby, J. M., Bisbey, T., Salas, E., Knott, B.A., & Vidulich, M. A. (2014). Cognition and physiological response: Towards a model of validated physiological measurement. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 58, 1009-1013.

CONFERENCE PRESENTATIONS

- Savage, N., **Stowers, K.**, & Shuffler, M.L. (2017, June). It's a Brave New World: How Driverless Vehicles May Impact Employees. *12th Annual International Conference on Occupational Stress and Health, Work, Stress, and Health*. Minneapolis, Minnesota.
- Hancock, P.A., **Stowers, K.L.**, Kessler, T.T. (2016, October). Can we trust autonomous systems? *1st International Neuroergonomics Conference*. Paris, France.
- Stowers, K.**, Hancock, P.A., Volante W.G. (2016, May). Human perception of robot appearance. *Robotics Collaborative Technology Alliance Program Review Meeting*. Philadelphia, PA.
- Leibowitz, N.M., **Stowers, K.** (2016, April). Building a trustworthy robot—Robot color and perceived trust. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Golden, K.E., **Stowers, K.** (2016, April). Equality and hierarchy in human-robot interaction. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Dodge, D.M., **Stowers, K.** (2016, April). Building modular robots for use in HRI research. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Iwig, C., Leyva, K., **Stowers, K.**, Oglesby, J.M., Sonesh, S.C., Hughes, A.M., Shimono, M., Salas, E. (2015, May). Human automation systems interaction measurement: A state of the science. *Houston Human Factors and Ergonomics Symposium*. Houston, TX.
- Hancock, P.A., Sanders, T., Kessler, T., **Stowers, K.** (2015, May). Examinations of interpersonal distance and trust in human-robot interaction. *Robotics Collaborative Technology Alliance Program Review Meeting*. Philadelphia, PA.
- Iwig, C., Oglesby, J.M., Leyva, K., Shimono, M., **Stowers, K.**, Sonesh, S.C., Salas, E. (2015, April). Human automation systems in spaceflight: The what, when, and how of measurement. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Stowers, K.** (2015, April). Communication between human factors psychologists and engineers: Challenges and solutions. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Stowers, K.**, Dodge, D. (2015, April). Bridging the gap between psychology and engineering through the use of Unified Modeling Language. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Oglesby, J.M., **Stowers, K.**, Leyva, K., Sonesh, S.C., Hughes, A.M., Iwig, C., Shimono, M., & Salas, E. (2015, January). A review and summary of methods for assessing human-automation system safety and performance. *NASA Human Research Program Investigators' Workshop*. Galveston, TX.
- Hughes, A.M., Volante, W.G., **Stowers, K.**, Leyva, K., Oglesby, J.M., Bisbey, T. & Salas, E. (2014, October). Understanding measurement: A framework toward validating physiological measurement of cognitive performance. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Oglesby, J.M., **Stowers, K.**, Leyva, K., Dietz, A.S., Burke, S. & Salas, E. (2014, October). Assessing human-automation system safety and efficiency: Development of a metrics framework. *Human Factors Applied Psychology Conference*. Daytona Beach, FL.
- Savage, N., **Stowers, K.**, Kramer, W., Shuffler, M, Salas, E. (2014, July). Team training design and evaluation features: An updated review. *Interdisciplinary Network for Group Research*. Raleigh, NC.

Kimberly Stowers

Heyne, K., Keebler, J., Shuffler, M.L., **Stowers, K.**, Oglesby, J., Afek, A., Salas, E. (2014, May). Reflective approaches to team training for a simulated planning task. *29th Annual Conference of the Society for Industrial and Organizational Psychology*.

Stowers, K., Oglesby, J.M., Leyva, K., Dietz, A.S., Burke, C.S., Salas, E. (2014, February). Evidence-based metric toolkit for measuring safety and efficiency in human-automation systems. *NASA Human Research Program Investigators' Workshop*. Galveston, TX.

GRANTS AND FELLOWSHIPS

Research Grants Awarded

2018-current \$16,740 U.S. Army Medical Research and Material Command
Subcontract from PI: Robert Wray, Ph.D., Soar Technology, Inc.

Research Grants Awarded (Assisting Author Only)

2017: 6 mo. \$150,000 U.S. Navy Naval Air Systems Command
PI: Amanda Bond, M.S.

2014 – 2017 \$1,200,000 National Aeronautics and Space Administration
PI: Eduardo Salas, Ph.D.

Fellowships Awarded

2017 \$15,000 Research Fellowship, Air Force Research Laboratory
2016 \$500 Graduate Presentation Fellowship, University of Central Florida

Travel Grants Awarded (Student Co-Lead)

2016 \$8,350 Student Government Association, University of Central Florida
PI: UCF Human Factors and Ergonomics Society Student Chapter

2015 \$6,700 Student Government Association, University of Central Florida
PI: UCF Human Factors and Ergonomics Society Student Chapter

INVITED SEMINAR TALKS

Stowers, K. (2015, October). *Communication between Psychologists, Engineers, and Designers*. Human-Centered Design Institute, Florida Institute of Technology. Melbourne, FL.

Kimberly Stowers

INVITED CLASSROOM TALKS

Stowers, K. (2015, February). *What Can I Do With a Degree in Human Factors?* Department of Psychology, University of Central Florida. Orlando, FL.

Stowers, K. (2014, February). *What is Human Factors?* Department of Psychology, University of Central Florida. Orlando, FL.

Hughes, A.M. & **Stowers, K.** (2013, March). *Team cognition and safety in complex systems.* Department of Psychology, University of Central Florida, Orlando, FL.

TEACHING EXPERIENCE

University of Alabama

Business Communications (GBA 300): Fall, 2017—present

Leadership Communications (MGT 422): Fall, 2017

University of Central Florida

Cognitive Psychology (EXP 3604): Spring, 2016

History & Systems of Psychology (PSY 4604): Fall, 2015

HONORS THESES MENTORED

Plazas, A.P. (2013). Exploring tacit knowledge in organizations. *Honors Thesis*. Department of Psychology, University of Central Florida: Orlando, FL.

PROFESSIONAL SERVICE

Service Positions

Jan. – Dec. 2016 President
Human Factors and Ergonomics Society (HFES) Student Chapter, UCF
Led the chapter to receive Gold Status, HFES highest national award

Jan. – Dec. 2015 Vice President
Human Factors and Ergonomics Society (HFES) Student Chapter, UCF
Assisted in receiving Gold Status, HFES highest national award

Jan. – Dec. 2014 Outreach Chair
Human Factors and Ergonomics Society (HFES) Student Chapter, UCF

Jan. – Dec. 2013 Human Factors Liaison, UCF
Student Professionals in Industrial/Organizational Psychology (SPIOP)

Kimberly Stowers

Manuscript Reviews

IEEE Transactions on Human-Machine Systems
Journal of Aviation Technology and Engineering
Ergonomics

PROFESSIONAL AFFILIATIONS

2014 – Present	Human Factors and Ergonomics Society
2013 – Present	Association for Psychological Science
2013 – Present	National Society of Collegiate Scholars

ADDITIONAL TRAINING & SKILLS

Online Course Development Certificate (UCF – ADL 5000)
Collaborative Institutional Training Initiative (CITI)

Creating wireframes and mockups (Illustrator CC)
Conducting data analysis (SPSS, LISREL, AMOS)
Using basic modeling techniques (GOMS, UML)

SECURITY CLEARANCE

OPM Secret (NACLIC) through December 2018 – Inactive