Nicholas J. Kelling, Ph.D.

Curriculum Vitae

Professor of Psychology University of Houston-Clear Lake School of Human Sciences and Humanities 2700 Bay Area Boulevard Houston, TX 77058 e-mail: kelling@uhcl.edu

EDUCATION

2006 – 2009	Georgia Institute of Technology Thesis: <i>An Investigation of Human</i> Minor: Physical Limitations of the	, 0
2005 – 2006	Georgia Institute of Technology Thesis: <i>The Influence of Visual Pe</i>	M.S. in Engineering Psychology reception on Vehicle Rates of Closure
1997 – 2001	Georgia Institute of Technology Minor: Biomedical Engineering	B.S in Mechanical Engineering

PROFESSIONAL HISTORY

2023 – present	Professor of Psychology –University of Houston-Clear Lake	
2019 – 2023	Associate Professor of Psychology –University of Houston-Clear Lake • Director of the Human Factors Psychology Program	
2014 - 2019	Assistant Professor of Psychology –University of Houston-Clear Lake • Director of the Human Factors Psychology Program	
2012 - 2014	Assistant Professor of Psychology – University of South Florida	
2011 - 2012	 Assistant Professor of Psychology – University of South Florida – Polytechnic Developer of B.S. in Engineering Psychology Developer of M.S. in Human Factors Integration Co-developer of B.S./M.S. in Systems Engineering 	
2009 - 2011	Assistant Professor of Psychology – Marshall University	

RESEARCH GRANTS AND AWARDED FUNDS

NASA (80NSSC21C0578); Intelligent Medical Crew Assistant (IMCA), 2021 - 2023*Phase II* (\$749,958; PI: W Buras; Role: Sub-award PI, \$14,995) NIEHS (2R44ES029348-02); VR-Based Evaluation and Training System 2020 - 2022for Emergency Responders and Managers, Phase II (\$199,997; PI: W Buras; Role: Sub-award PI, \$20,000). NASA (80NSSC20C0541); Intelligent Medical Crew Assistant (IMCA), 2021 - 2023*Phase I* (\$124,946; PI: W Buras; Role: Consultant, \$5,950) Faculty Research & Support Funds (FRSF), UHCL; Smartphone-Delivered 2017 - 2018 Behavioral Parent Training for Children with Attention-Deficit Hyperactivity Disorder (\$4,500; Co-PI: N.J. Kelling) 2017 - 2018 NASA (H12.02-9628); Adaptive Augmented Reality enabled electronic Procedure Toolset, Phase I (\$124,710; PI: M. Izygon; Role: Sub-Contractor - \$20,690) National Institute of Drug Abuse/NIH (N44DA-16-1208); XDA – 2016 - 2018 eXperimental Design Assistant, Phase II (\$999,390; PI: W Buras; Role Sub-award Co-I - \$350,000) Faculty Research & Support Funds (FRSF), UHCL; Investigation of Dual 2015 - 2017 Task Paradigms for ADHD Classification (\$5,380; Co-PI: N.J. Kelling) University of South Florida Internal Support Funds; PolyVision Augmented 2012 - 2013 Reality Mobile Application and University Community Program (\$10,000; Co-PI: N.J. Kelling) University of South Florida Internal Support Funds; Polytechnic Learning 2012 - 2013 *Center* (\$10,000; Co-PI: N.J. Kelling) Nvidia Corporation Academic Partnership, Phase I Equipment Donation 2010

PUBLICATIONS

Kelling)

2010

2009

(\$2,000; PI: N.J. Kelling)

Kelling, A. S., Kelling, N. J. (2023). Student Preferences of Virtual and Live Learning Laboratory Experiences. *Teaching of Psychology*. https://journals.sagepub.com/doi/abs/10.1177/00986283221143781

Marshall University Summer Research Award (PI: N.J. Kelling)

Marshall University INCO Award for Faculty Development (PI: N.J.

- Kelling, A., Kelling, N., & Gaskins, L. (2023). Examining How the Pandemic Impacted Opinions for Course Formats. International Journal of Teaching and Learning in Higher Education, 35(1), 138-150.
- Kelling, N., & Kelling, A. (2022). A Case Study Integrating Edutainment to Enhance Student Engagement and Satisfaction in an Online Graduate Psychology Course. Intersection: A Journal at the Intersection of Assessment and Learning, 3(2), 36298.
- Spinelli, M., Kelling, N., Morris, M., Neira, D., Convento, S., & Deleanu, E. (2021). Participant Vocabulary Use and Selection Differences in Serial Versus Parallel

- Presentation of Product Reaction Cards. Ergonomics in Design, https://doi.org/10.1177/10648046211059927
- Kelling, N.J., Kelling, A.S., Walther, C.P., Johnston, A., and Elkins, S. (2021). Keep Calm and Conceal Carry: Opinions about Campus Carry on a Non-Traditional University Campus in Texas. *The Social Science Journal*. https://doi.org/10.1080/03623319.2021.1908809
- Ashkenazi, I., Rapaport, C., Kelling, N., & Izygon, M. Stress Management as Key Factor for Enhanced First Responder Training: Virtual Reality at the Service of Life Savers. *Journal of Emergency Medical Services*. Available at: https://www.jems.com/training/virtual-reality-service-of-life-savers/.
- Malin, D. H., Hetherington, S. A., Nghiem, D. M., Ward, C. P., Kelling, N., Izygon, J. J., ... & Buras, W. R. (2019). Software for designing rigorous and replicable preclinical research: The Experimental Design Accelerator. *Journal of neuroscience research*, 97(9), 1043-1050. https://doi.org/10.1002/jnr.24440
- Kelling, A., Varma, S. G., & Kelling, N. J. (2019). A Multi-Faceted and Practical Analysis of Online Courses at UHCL. *International Journal of Teaching and Learning in Higher Education*, 31(1), 128-138.
- Kelling, N. J., & Corso, G. M. (2018). The effect of spatial working memory capacity on ball flight perception. *Journal of Human Sport & Exercise*, *13*(4). https://doi.org/10.14198/jhse.2018.134.04
- Kelling, N.J., Gaalema, D.E., & Kelling, A.S. (2014). A Modified Operational Sequence Methodology for Zoo Exhibit Design and Renovation: Conceptualizing Animals, Staff, and Visitors as Interdependent Coworkers. *Zoo Biology*, *33*, 336-348. https://doi.org/10.1002/zoo.21134
- Kelling, N.J., Kelling, A.S., & Lennon, J.F. (2013). The Tweets that Killed a University: A Case Study Investigating the Use of Traditional and Social Media in the Closure of a State University. *Computers in Human Behavior*, 29, 2656-2664. https://doi.org/10.1016/j.chb.2013.06.044
- Kelling, A.S., Dampier, S.M.A., Kelling, N.J., Sandhaus, E.A., & Maple, T.L. (2012) Lion, Ungulate, and Visitor Reactions to Playbacks of Lion Roars at Zoo Atlanta. *Journal of Applied Animal Welfare Science*, 15, 313-328. https://doi.org/10.1080/10888705.2012.709116

PUBLISHED AND REFEERED CONFERENCE PROCEEDINGS

Kelling, S. M., & Kelling, N. J. (2023, October). Don't Drop the Ball: A Comparison of Throwing Performance Between VR and Real Life. In *Proceedings of the Human*

- Factors and Ergonomics Society Annual Meeting (p. 21695067231192663). Sage CA: Los Angeles, CA: SAGE Publications.
- Kelling, A. S., Kelling, N. J., & Cherry, S. M. (2023, October). The effectiveness of social activism gaming on changing social networking site use. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (p. 21695067231192663). Sage CA: Los Angeles, CA: SAGE Publications.
- Kelling, A. S., Kelling, N. J. (2023). *Think outside the Skinner Box: Lessons learned from teaching laboratories for Psychology of Learning courses*. STP Teaching Tips: A Compendium of Conference Presentations on Teaching: 2022-2023.. Teaching Tips: A Compendium of Conference Presentations on Teaching: 2022-2023.
- Klisans, D. E. V., & Kelling, N. J. (2017, September). Psycognia: The Development of a Passive Gaming Environment for Use in Undergraduate Psychology Classes. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 61, No. 1, pp. 412-416). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931213601585
- Avera, A., Kelling, N., Harper, C., Burks, R., & Bowman, H. (2017, September). Exploring the Optimal Number of Trials and Participants for Touchpad Testing Using Fitts-based Tasks. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 61, No. 1, pp. 367-371). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931213601574
- Kelling, N., Ward, C., Malin, D., Buras, W., & Hetherington, S. (2017, September). The Use of Human Factors to Address Medical Research Replicability Through the Development of Software Based Solution. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 61, No. 1, pp. 597-601). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931213601633
- Avera, A., Merta, M., Fournier, P., DeLeon, R., Kelling, N., & Sutherland, S. C. (2016, September). Reaching the Youth–Creating Entertaining and Educational HF/E Outreach Activities for Grades K-12. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 60, No. 1, pp. 425-429). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1541931213601096
- Merta, M., & Kelling, N. (2015). Effects of Level of Control on Simulator Sickness Using a Virtual Reality Head Mounted Device. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 59, No. 1, pp. 766-769). SAGE Publications. https://doi.org/10.1177/1541931215591237
- Pham, T., & Kelling, N. (2015). Mechanical and Membrane Keyboard Typing Assessment Using Surface Electromyography (sEMG). In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 59, No. 1, pp. 912-915). SAGE Publications. https://doi.org/10.1177%2F1541931215591268

- Thomas, E., DeLeon, R., Kelling, N., & Harper, C. (2015). Arrow Key Configurations on Laptop Keyboards Performance and User Preference of the Inverted-T and Modified-T Layout. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 59, No. 1, pp. 1071-1074). SAGE Publications. https://doi.org/10.1177/1541931215591300
- Kelling, N., & Kelling, A. (2014). ZooAR: Zoo based Augmented Reality Signage. Proceedings of the Human Factors and Ergonomics Society 58th Annual Meeting. Chicago, II: Human Factors and Ergonomics Society https://doi.org/10.1177/1541931214581230
- Kelling, N.J., Gaalema, D.E., & Kelling, A.S. (2012). Elephant in the Break Room: The use of modified operational sequence diagrams for the determination of zoo exhibit inefficiencies. Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting. Boston, MA: Human Factors and Ergonomics Society. https://doi.org/10.1177/1071181312561302
- Kelling, N. J., Ryan, C. D., Halter, J. T., & Corso, G. M. (2008). Drivers and Passengers: Are the Perceptions of Brake Time the Same. Proceedings of the Human Factors and Ergonomics Society 52th Annual Meeting. New York, NY: Human Factors and Ergonomics Society. https://doi.org/10.1177/154193120805202309
- Kelling, N. J., & Corso, G. M. (2007). The Influence of Lead Vehicle Behavior and Vehicle Rates of Closure on a Driver's Braking Behavior. Proceedings of the Human Factors and Ergonomics Society 51th Annual Meeting. Baltimore, MA: Human Factors and Ergonomics Society. https://doi.org/10.1177/154193120705102202
- Kelling, N. J., & Corso, G. M. (2007). Prediction of Brake Onset Times for Rear End Collisions. Proceedings of the Fourth International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Stevenson, Washington. https://doi.org/10.17077/drivingassessment.1239
- Corso, G. M., & Kelling, N. J. (2007). Just Noticeable Differences for Vehicle Rates of Closure. Proceedings of the Fourth International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Stevenson, Washington. https://doi.org/10.17077/drivingassessment.1227

PRESENTATIONS

Rupp, M. A., Gluck, A., Derby, J., Gable, T., Kelling, N., & Van Ommen, C. (2023, October). Towards Making XR 100% Accessible: A Discussion Panel. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (p. 21695067231192632). Sage CA: Los Angeles, CA: SAGE Publications.

- Stone, N. J., Nees, M. A., Hancock, G. M., Kelling, N., & Rovira, E. (2023, October). Academic Options: Teaching-Intensive Institutions. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (p. 21695067231192662). Sage CA: Los Angeles, CA: SAGE Publications.
- Wilhite, W. A., Jones, V. L., Robertson, I., Sears, T. D., Kelling, N., & Amick, R. Z. (2023, February). A comparison of physical and virtual reality for the assessment of habitat usability [Conference Presentation]. 2023 NASA Human Research Program Investigators' Workshop, Galveston, TX.
- Debs, Y., Jones, V., & Kelling, N.J. (2022). Influence of Social Views on Game Strategies and Physiological Measures of Stress during Social Activist Gaming. In 16th Annual One-Day Symposium of the Houston Human Factors and Ergonomics Society.
- Jones, V., Debs, Y., Kelling, N.J., Lucas, A., & Cherry, S. (2022). Impact of Social Activist Gaming on Opinions of Border Security: Immigration. In 16th Annual One-Day Symposium of the Houston Human Factors and Ergonomics Society.
- Schulte, Z. & Kelling, N.J. (2022). Sensorimotor Performance in VR Altered Gravity: Work in Progress. In 16th Annual One-Day Symposium of the Houston Human Factors and Ergonomics Society.
- Wilhite, K. & Kelling, N.J. (2022). Virtual Reality Equivalency based on Performance Measures. In 16th Annual One-Day Symposium of the Houston Human Factors and Ergonomics Society.
- Chapman-Lopez, T., Kelling, N. J., Arecemant, D. J., Amonette, W. E., & English, K. L. (2020). Effects of Virtual Reality During Rowing Ergometry on Metabolic and Performance Parameters. In International Journal of Exercise Science: Conference Proceedings (Vol. 2, No. 12, p. 96).
- Arcemant, D. J., Kelling, N. J., Chapman-Lopez, T., Amonette, W. E., & English, K. L. (2020). Effects of Virtual Reality During Rowing Ergometry on Presence, Perceived Exertion, and Exercise Enjoyment. In International Journal of Exercise Science: Conference Proceedings (Vol. 2, No. 12, p. 93).
- Lum, H. C., Hancock, G. M., Waldfogle, G. E., Scholcover, F., & Kelling, N. (2019, November). Putting the Applied in Applied Psychology: Experiential Learning Projects in the HFE Classroom. In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 63, No. 1, pp. 506-510). Sage CA: Los Angeles, CA: SAGE Publications. https://doi.org/10.1177/1071181319631332
- Klisans, D.V., Kelling, N.J., & Spinelli, M.L. (2018). *Effects of Screen Protector Material on User's Pressure Accuracy When Using a Stylus for Digital Art*. Poster presentation at the HCI International 2018 conference

- Kelling, N.J. (2018). *Interface Researching VR and AR at the University of Houston Clear Lake*. Presentation at the 1st Annual Virtual Reality Symposium, Houston, TX.
- Kelling, N., Amick, R. Z., Corso, G. M., Harper, C., Muddimer, A., & Peres, S. C. (2016, September). *Fork in the Road: Deciding Between Academia and Industry*. Discussion Panel at the Human Factors and Ergonomics Society Annual Meeting
- Malin, D.H., Ward, C.P., Hetherington, S.A, Izygon, J.J., Nghiem, D.M., Kelling, N., and Buras, W.R. (October, 2015). *Interactive training software for designing, conducting and documenting rigorous preclinical experiments on drug dependence*. Presentation at Society for Neuroscience 2015 Annual Meeting.
- Haist, B., Kelling, N.J., Harper, C.M. & Kotin, S. (May, 2015). *Magic 5 Hardware Usability*. Poster presentation at the 2015 Houston HFES One Day Symposium.
- Smith, T., Becerra, Z., Corso, G.M., & Kelling, N.J. (November, 2014). *Detecting Changes in the Direction of a Moving Object*. Poster presentation at the 2014 Annual Meeting of the Kentucky Academy of Science, Lexington, KY.
- Becerra, Z., Smith, T., Corso, G.M., & Kelling, N.J. (November, 2014). *Detecting Changes in the Continuity of a Moving Object*. Poster presentation at the 2014 Annual Meeting of the Kentucky Academy of Science, Lexington, KY.
- Kelling, N. J., Bedwell, W., Corso, G.M., Cuevas, H. M., Keebler, J. R., Peres, S. C., & Walker, B. N. (October, 2014). *Variance in Academia: It is not all R1's out there and even those are not what you think*. Chair of Discussion Panel at the Human Factors and Ergonomics Society 58th Annual Meeting. Chicago, II: Human Factors and Ergonomics Society.
- Kelling, N. J., Bedwell, W., Corso, G.M., Cuevas, H. M., Keebler, J. R., Peres, S. C., & Walker, B. N. (October, 2013). Life, the Universe, and Academia: An Interactive Discussion on Balance and Early Success for Potential Academics. Chair of Discussion Panel presented at the 57th Annual Meeting of the Human Factors and Ergonomics Society.
- Kelling, N. J., & Kelling, A. S. (September, 2010). *Google Wave as Classroom Collaboration Tool in a Commuting Environment*. Presented at the 54th Annual Meeting of the Human Factors and Ergonomics Society.
- Kelling, N. J., & Corso, G. M. (August 2008). *The Time is Now! Vehicles must fully adapt to drivers, not just their radio stations.* Presented at the 116th American Psychological Society Annual Convention, Boston, MA.

- Kelling, N. J. (March 2007). *The Influence of Lead Vehicle Behavior and Vehicle Rates of Closure on a Driver's Braking Behavior*. Presented at the Georgia Institute of Technology Annual Graduate Student Research Symposium, Atlanta, GA.
- Halter, J. T., Kelling, N. J., & Corso, G. M. (April 2006). *Effects of Vehicle Size on the Perception of Rates of Closure*. Poster presented at the Georgia Psychological Association Annual Student Research Poster Session, Atlanta, GA.
- Kelling, N. J., & Corso, G. M. (March 2006). *Analysis of Roles of Visual Perception in Driving*. Poster presented at the Georgia Institute of Technology Annual Graduate Student Research Symposium, Atlanta, GA.

AWARDS/HONORS

- Cletis Booher Service Award Houston Human Factors and Ergonomics Society 2022 UHCL University Faculty Fellowship Award (2020-2021)
- UHCL Center for Faculty Development Texas Research & Scholarship Award for *Keep* calm and conceal carry: Opinions about campus carry on a nontraditional university campus in Texas (2022)
- UHCL Center for Faculty Development Instructional Innovation Award for A Case Study Integrating Edutainment to Enhance Student Engagement and Satisfaction in an Online Graduate Psychology course (2021)
- UHCL Center for Faculty Development Scholarship to Improve the Academy for *A Multi-Faceted and Practical Analysis of Online Courses at UHCL* (2021)
- Georgia Tech Psychology Department Commendation on End of the Year Evaluation (Spring, 2007)
- Georgia Institute of Technology Best Practices Challenge
- Best of the Best Award for Research, Finance, and Institute Operations (Spring, 2005)

 Network Based Time Document Solution

PROFESSIONAL SERVICE

Associate Editor for *Ergonomics in Design* 2018-current

- Advisory Board Member for ADA University's School of Information Technology and Engineering in Baku, Azerbaijan 2021-2022
- Member of the Program Committee for the Automotive UI 2012-2017 Conferences
- Member of the Technical Program Committee for the Special Session on Intelligent Cooperative Driving and Autonomous Connected Vehicles at the 2014 International Conference on Collaboration Technologies and Systems
- Member of the Technical Program Committee for The Social Car Socially Inspired Car to X Interaction workshop Automotive UI 2012
- Member of the Technical Program Committee for the Subliminal Perception in Cars Workshop at the Automotive UI 2011 Conference
- Member of Human Factors and Ergonomics Society *Defining Human Factors/Ergonomics* Committee 2012

Member of Human Factors and Ergonomics Society 2014 Task Force of the HF Academic Job Market

Session Chair for the Surface Transportation Technical Group at the 54th Annual Meeting of the Human Factors and Ergonomics Society

PROFESSIONAL SOCIETIES AND COMMITTEES

Member of the Human Factors and Ergonomics Society

Accreditation Reviewer (2016-present)

Member of the HFES Membership Committee working group (2021)

Co-Chair of Workshops for the Annual Meeting (2018 - 2021)

Chair of Education Technical Group (2015 – 2019)

Member of Education and Training Committee (2015-2019)

Member of the Education Technical Group

Member of Perception and Performance Technical Group

Member of the Extended Reality Technical Group

Member of the Houston Human Factors and Ergonomics Society

Past President (2022-2023)

President (2020-2022)

President Elect (2019-2020)

Member of the Executive Committee (2015-2017)

Elections Director (2015-2017)

Conference Committee Member for Houston HFES Annual Symposium (2015-2022)

UNIVERSITY SERVICE

Chair of PBC Shared Governance Committee (2023-present)

HSH Convener (2022-2023)

Member of the Duo2FA Implementation team for UH System (2020-2021)

Inaugural Chair of University Technology Advisory Board (2020 – 2021)

Budget Task Force (2020 - present)

Objective Owner for Strategic Planning (2019-present)

Fall Teaching Workgroup (2020)

Faculty Senate (2017-2020; 2023-present)

Chair of Faculty Senate Budget Committee (2018-2020)

Faculty Senate Executive Committee (2018-2020)

Planning and Budget Shared Governance Committee (2017-2019)

Faculty Senate Curriculum Committee (2017-2018)

Search Committees

Contract Funded Human Factors Engineer (2021)

AVP Business Operations (2021)

AVP/CIO of University Computing and Telecommunications (2019)

Executive Director for Sponsored Programs (2016-2017)

I/O Psychology (2015-2016)

Co-chair Applied Cognitive Psychology (2014-2015)

Experimental Psychology (2008-2009)

Co-Manager and Co-Creator of the UHCL HSH Faculty Writing Club (2015-2017)
Head of the HSH Psychology Website Redevelopment Project (2014-2015)
First Freshman Task Force – USF-Polytechnic (2011-2012)
Council on Technologies for Instruction and Research – USF-Polytechnic (2011-2012)
Ad-Hoc Recruitment and Retention Committee Marshall University (2010-2011)

TEACHING EXPERIENCE

University of Houston-Clear Lake

Graduate: Research Design and Statistics I & II, Sensation and Perception, Advanced Cognitive Psychology, Human Factors Engineering, Human Factors Methodology, Practicum in Human Factors, User Centered Design, Perception and Psychomotor Skills, Seminar in Applied Cognitive Psychology Undergraduate: Behavioral Statistics, Social Sciences Research Techniques, Cognitive Psychology, Human Factors Psychology

University of South Florida

Undergraduate: Applied Cognitive Psychology, Engineering Psychology, Perception, Research Methods, Tests and Measurement, Statistics, Human Factors (Industrial Engineering)

University of South Florida-Polytechnic

Undergraduate: Experimental Design & Analysis, Statistics, Perception, Research Methods

Marshall University

Undergraduate: Statistics, Experimental Psychology, Psychology of Machines, Engineering Psychology, Applied Cognitive Psychology, Psychology of Sport