STEVEN C. SUTHERLAND

PERSONAL DATA

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EDUCATION

2012   Ph.D.   Southern Illinois University at Carbondale
                                  Major: Psychology.
                                  Dissertation: *Integrating a freely available environmental
                                  cue and costly expert advice to make more normative
                                  decisions*.
                                  Chair: Dr. Michael E. Young.

2009   MA   Southern Illinois University at Carbondale
                                  Major: Psychology.
                                  Master's Thesis: *The utilization of expert advice: Effects of
                                  cost and accuracy*.

2007   BS   University of Mary Washington
                                  Major: Psychology

PROFESSIONAL POSITIONS

2021-Present   Associate Professor, University of Houston-Clear Lake, Department of
                      Psychology, Houston, TX.

2015-2021   Assistant Professor, University of Houston-Clear Lake, Department of
                      Psychology, Houston, TX.

2014-2015   Postdoctoral Research Associate, Northeastern University, Department of
                      Game Design, Boston, MA.

2013-2014   Visiting Assistant Professor, Radford University, Department of
                      Psychology, Radford, VA.

2013-2014   Adjunct Professor, Germanna Community College, Department of Psychology, Fredericksburg, VA.

1998-2007   Associate, Floor Supervisor, Unit Manager; Capital One, Richmond, VA. Full-time.
Duties: Managed team of 20+ employees. Coached employees in quality assurance and productivity utilizing different motivational methods based on individual personality types. Counseled employees through a vast array of organizational changes. Reviewed employee performance for monthly appraisals and delivered relevant feedback. Analyzed policies and procedures, submitted suggestions for improvement and implemented necessary changes. Delivered team meetings to ensure associates were trained on new policies and procedures.

AWARDS AND HONORS

2015   David M. Levine Best Paper in Innovative Education Award (NEDSI Conference)
2014   Innovating Justice Award, Hague Institute for the Internationalization of Law (Runner-Up)
2011   Arthur Menendez Vision Research Award, Southern Illinois University
2008   Professor Alfred Lit Memorial Scholarship, Southern Illinois University
2007   Professor Alfred Lit Memorial Scholarship, Southern Illinois University
2003   Circle of Excellence Award, Capital One

GRANT ACTIVITY

Awarded

2021   Collaborative Research: StudyCrafter: An AI-Supported Platform for Engaging Learners to Conduct Research with Human Subjects. National Science Foundation (NSF). $450,000. ($2M in total across 4 institutions) (Co-Principal Investigator)

2017   EXP: Collaborative Research: Empowering Learners to Conduct Playful Experiments. National Science Foundation (NSF). Total award for individual portion: $70,000 ($549,662 in total across 4 institutions). (Co-Principal Investigator)

2016   Using Wearable Technology to Decrease Sentinel Errors Made in Clinical Nursing Practice. Internal Faculty Research Support Funds (FRSF), funded by the University of Houston-Clear Lake. Total award: $4,500. (Senior Research Personnel)

2015	The Impact of Training on the Effective Use of Automation in Noisy Environments. Internal Faculty Research Support Funds (FRSF), funded by the University of Houston-Clear Lake. Total award: $4,000. (Principal Investigator)

Not Awarded

2020	Collaborative Research: StudyCrafter: An Intelligent Platform to Empower Learners to Design and Analyze Research Studies. National Science Foundation (NSF). $450,102. ($1,999,892 in total across 4 institutions) (Co-Principal Investigator)
2019	Collaborative Research: StudyCrafter: An Intelligent Platform to Empower Learners to Design and Analyze Research Studies. National Science Foundation (NSF). $442,540. ($1,991,860 in total across 3 institutions) (Co-Principal Investigator)
2019	Journey into the World of Medicine. National Institutes of Health (NIH). $150,000. (Senior Personnel)
2019	Impacts of When and How Automation is Used in Training on the Effective Use of Automation in Practice. National Aeronautics and Space Administration (NASA). $754,984. (Principal Investigator)
2018	CAREER: Impacts of and Factors Affecting Trust in and Reliance on Automation. National Science Foundation (NSF). $410,996. (Principal Investigator)
2018	Collaborative Research: Engaging Communities for Integrating Computational Thinking and Behavioral Science in Middle Schools. National Science Foundation (NSF). $249,978. ($1,562,389 in total across 4 institutions) (Co-Principal Investigator)
2018	Making Connections and Building Futures in Neuroscience: Exploring an Interactive and Immersive Brain Space. National Science Foundation (NSF). $1,165,296. (Co-Principal Investigator)
2016	Empowering Students for Crowdsource Virtual Environments. Institute of Education Sciences (IES). $1,000,000. (Co-Principal Investigator)
2015	EXP: Empowering Learners to Conduct Crowdsourced Social Science Research in Playful Virtual Environments. National Science Foundation (NSF). $549,075. (Subcontract)

PUBLICATIONS

*Graduate student co-author, **Undergraduate co-author

*Duke, T., *Althoff, W., Schouten, D., Matuk, C., Harteveld, C., Smith, G. M., & Sutherland, S.C. (2020). User support systems: Lessons learned from implementing multiple interaction methods during testing. In *Proceedings of the 2020 Human Factors and Ergonomic Society (HFES) 64th International Annual Meeting*, Virtual Conference.

Amato, A., Matuk, C., Schouten, D., Sutherland, S. C., Smith, G. M., & Harteveld, C. (2020). What do students learn about experimental research by designing interactive fiction games? In *Proceedings of the 2020 International Conference of the Learning Sciences (ICLS 2020)*, Nashville, TN. (Online conference due to COVID-19; papers and posters published in proceedings)

Carstensdottir, E., Partlan, N., Sutherland, S. C., *Duke, T., *Ferris, E., *Richter, R. M., *Valladares, M., & Seif El-Nasr, M. (2020). Progression Maps: Conceptualizing narrative structure for interaction design support. In *Proceedings of the 2020 ACM Conference on Computer-Human Interaction (ACM CHI 2020)*, Honolulu, HI. (Online conference due to COVID-19; papers and posters published in proceedings)

Mahajan, S., Bunyea, L., Partlan, N., Schout, D., Harteveld, C., Matuk, C., *Althoff, W., *Duke, T., Sutherland, S.C., & Smith, G. (2019). Toward automated critique for student-created interactive narrative projects. In *Proceedings of the 15th AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE 2019) Workshop on Experimental AI in Games (EXAG 2019),* Atlanta, GA.

Partlan, N., Carstensdottir, E., Kleinman, E., Snodgrass, S., Harteveld, C., Smith, G., Matuk, C., Sutherland, S.C., & Seif El-Nasr, M. (2019). Evaluation of an automatically-constructed graph-based representation for interactive narrative. In *Proceedings of the 14th International Conference on the Foundations of Digital Games (FDG 2019) Conference,* San Luis Obispo, CA.

*Richter, R.M., *Valladares, M.J., & Sutherland, S.C. (2019). Effects of the source of advice and decision task on decisions to request expert advice. In *Proceedings of the ACM 24th International Conference on Intelligent User Interfaces (ACM IUI 2019)*, Marina del Ray, CA.

Sadeghi, M., Khanade, K., Sasangohar, F., & Sutherland, S. C. (2018). Design of a wearable stress monitoring tool for intensive care unit nursing: Functional information requirements analysis. In *Proceedings of the 2018 Human Factors and Ergonomic Society (HFES) 62nd Annual Meeting*, Philadelphia, PA.

Young, M.E., Sutherland, S.C., & McCoy, A.W. (2018). Optimal go/no-go ratios to maximize false alarms. *Behavior Research Methods, 50*(3), 1020-1029.

Khanade, K., Sasangohar, F., Sutherland, S. C., & Alexander, K. E. (2018). Deriving information requirements for a smart nursing system for Intensive Care Units. *Critical Care Nursing Quarterly, 41*(1), 29-37.

**Althoff, W., Sutherland, S.C., & **Chambers, J. (2017). Emotional factor impacts on user compliance with an automated advisor system. In *Proceedings of the 2017 Human Factors and Ergonomic Society (HFES) 61st Annual Meeting*, Austin, TX.

Harteveld, C., & Sutherland, S.C. (2017). Personalized gaming for motivating social and behavioral science participation. In *Proceedings of the 2017 ACM Workshop on Theory-Informed User Modeling for Tailoring and Personalizing Interfaces*, Limassol, Cyprus.

Harteveld, C., Manning, N., Abu-Arja, F., Menasce, R., Thurston, D., Smith, G., & Sutherland, S.C. (2017). Design of playful authoring tools for social and behavioral science. In *Proceedings of the 22nd ACM Annual Meeting of the Intelligent User Interfaces Community (ACM IUI 2017)*, Limassol, Cyprus.

Sutherland, S.C., Harteveld, C., & Young, M.E. (2016). Effects of the advisor and environment on requesting and complying with automated advice. *ACM Transactions on Interactive Intelligent Systems: Special Issue on Human Interaction with Artificial Advice Givers*, *6*(4), 1-36.

*Avera, A., *Merta, M., *Fournier, P., *DeLeon, R., Kelling, N. & Sutherland, S.C. (2016). Reaching the youth: Creating entertaining and educational HF/E outreach activities for Grades K-12. In *Proceedings of the 2016 Human Factors and Ergonomic Society (HFES) 60th Annual Meeting*, Washington, D.C.

Sun, Y., Liang, C., Sutherland, S. C., Harteveld, C., & Kaeli, D. (2016). Modeling player decisions in a supply chain game. In *Proceedings of the 2016 IEEE Conference on Computational Intelligence in Games (IEEE CIG 2016)*, Santorini, Greece.

Harteveld, C., Sutherland, S.C., & Folajimi, Y. (2016). Sustainable life cycle game design: Mixing games and reality to transform education. In *Proceedings of the 2016 Joint Conference of the Digital Games Research Association and the Foundations of Digital Games (DiGRA/FDG 2016)*, Dundee, Scotland.

Harteveld, C., Sutherland, S.C., Stahl, A.J., Smith, G., & Talgar, C. (2016). Standing on the shoulders of citizens: Exploring gameful collaboration for creating social experiments. In *IEEE Computer Science Proceedings of the 2016 Hawaii International Conference on System Sciences (HICSS 2016)*, Kauai, HI.

Sutherland, S.C., Harteveld, C., & Young, M.E. (2015). The role of environmental predictability and costs in relying on automation. In *Proceedings of the 2015 ACM Conference on Computer-Human Interaction (ACM CHI 2015)*, Seoul, South Korea.

Harteveld, C., & Sutherland, S.C. (2015). The goal of scoring: Exploring the role of game performance in educational games. In *Proceedings of the 2015 ACM Conference on Computer-Human Interaction (ACM CHI 2015)*, Seoul, South Korea.

Harteveld, C., Sutherland, S.C., & Smith, G.M. (2015). Design considerations for creating game-based social experiments. In *Proceedings of the 2015 ACM Conference on Computer-Human Interaction (ACM CHI 2015) Workshop, Researching Gamification: Strategies, Opportunities, Challenges, Ethics*, Seoul, South Korea.

Sutherland, S.C., Harteveld, C., Smith, G., Schwartz, J., & Talgar, C. (2015). Exploring digital games as a research and educational platform for replicating experiments. In *Proceedings of the 2015 Northeast Decision Sciences Institute Conference*, Cambridge, MA. [Best Paper in Innovative Education Award]

Azadegan, A., Harteveld, C., & Sutherland, S.C. (2015). Design approach for collaborative decision-making games. In *Proceedings of the 2015 Annual Meeting of Foundations of Digital Games (FDG 2015) Conference*, Pacific Grove, CA.

Harteveld, C. & Sutherland, S. C. (July, 2014). Finding the game in decision-making: A preliminary investigation. In *Proceedings of the Annual Meeting of the International Simulation and Gaming Association (ISAGA)*, Dornbirn, Austria.

Limongi, R., Sutherland, S.C., Zhu, J., Young, M.E., & Habib, R. (2013). Temporal prediction errors modulate cingulate–insular coupling. *NeuroImage, 71,* 147-157.

Young, M.E., Webb, T.L., Sutherland, S.C., & Jacobs, E.A. (2013). Magnitude effects for experienced rewards at short delays in the escalating interest task. *Psychonomic Bulletin and Review, 20* (2)*,* 302-309.

Young, M.E., Cole, J. J., & Sutherland, S.C. (2012). Rich stimulus sampling for between-subjects designs improves model selection. *Behavior Research Methods, 44,* 176-188.

Young, M.E., Sutherland, S.C., Cole, J., & Nguyen, N. (2011). Waiting to decide helps in the face of probabilistic uncertainty but not delay uncertainty. *Learning and Behavior, 39,* 115-124.

Young, M.E., Sutherland, S.C, & Cole, J.J. (2011). Individual differences in causal judgment under time pressure: Sex and prior video game experience as predictors. *International Journal of Comparative Psychology (Special Issue), 24,* 76-98*.*

Young, M.E., & Sutherland, S. (2009). The spatiotemporal distinctiveness of direct causation. *Psychonomic Bulletin and Review*, *16*, 729-735.

PRESENTATIONS
*Graduate student co-author, **Undergraduate co-author

Sutherland, S.C., *Althoff, W., Amato, A., Bunyea, L., *Duke, T., Harteveld, C., Matuk, C., Olguin, K., Partlan, N., Seif El-Nasr, M., Snodgrass, S., & Smith, G. (April, 2020). *Analysis of design decisions on reinforcing stereotypes in games*. Poster accepted to the *2020 Annual Meeting of the American Educational Research Association*, San Francisco, CA. (Online conference due to COVID-19; papers and posters published in proceedings)

*Richter, R., *Valladares, M. J., *Khamma, J., *Scott, E., & Sutherland, S. C. (April, 2019). *The impact of contextually evoked emotions in high stakes environments on decisions.* Paper presented at the *15th Annual Symposium of the Houston Human Factors and Ergonomics Society*, Houston, TX.

Matuk, C., Sutherland, S.C., *Althoff, W., Snodgrass, S., Partlan, N., Smith, G., Seif El-Nasr, M., & Harteveld, C. (April, 2019). *Synergies between research and game design: Reflections on interactive narrative experiments by student game designers*. Poster presented at the *2019 Annual Meeting of the American Educational Research Association*, Vancouver, BC.

Young, M. E., Sutherland, S. C., & McCoy, A. W. (November, 2018). *Variables affecting go/no-go discrimination and response bias*. Paper presented at the *Annual Meeting of the Psychonomic Society*, New Orleans, LA.

*Richter, R. M., Sutherland, S. C., & *Althoff, W. F. (April, 2018). *Effects of the source of advice and decision task on decisions to request expert advice*. Poster presented at the *Annual Symposium of the Houston Human Factors and Ergonomics Society*, Houston, TX.

Khanade, K., Sadeghi, M., Sasangohar, F., Sutherland, S., & Alexander, K. (April, 2018). *Design requirements for a smart nursing system using a human-centered approach*. Poster presented at the *Annual Symposium of the Houston Human Factors and Ergonomics Society*, Houston, TX.

Khanade, K. R., Sasangohar, F., Sutherland, S. C., & Alexander, K. E. (October, 2017). *Deriving information requirements for a smart nursing system for Intensive Care Units.* Paper presented at the *2017 Human Factors and Ergonomic Society (HFES) 61st Annual Meeting*, Austin, TX.

**Althoff, W. & Sutherland, S. C. (June, 2017). *Simple strategies outperform decision makers in an automated task.* Paper presented at the *13th annual symposium of the Houston Human Factors and Ergonomics Society*, San Antonio, TX.

Sutherland, S.C., Harteveld, C., & Young, M.E. (March, 2017). *Effects of the advisor and environment on requesting and complying with automated advice.* Paper presented at the *22nd annual meeting of the Intelligent User Interfaces Community*, Limassol, Cyprus.

*Avera, A., Sun, Y., Liang, C., Harteveld, C., Kaeli, D., & Sutherland, S. C. (June, 2016). *The best predictor of future reliance is past reliance.* Poster presented at the *12th annual symposium of the Houston Human Factors and Ergonomics Society*, Houston, TX.

Liang, C. Yoganand, N. T., Sun, Y, Sutherland, S. C., Holmgård, C., Harteveld, C., & Kaeli, D. (April, 2015). *VISTALIGHTS: A game that helps people make better decisions.* Paper presented at Northeastern University's Research, Innovation and Scholarship Expo, Boston, MA. [Outstanding Research Award]

Webb, T. L., Young, M. E., Sutherland, S. C., & Jacobs, E. A. (May, 2012). *The magnitude effect in a video game task.* Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

Limongi, R., Sutherland, S. C., Zhu, J., Young, M. E., & Habib, R. (April, 2011). *Temporal prediction errors anticipatorily modulate cingulate-insular connections.* Poster presented at the 2012 Cognitive Neuroscience Society Annual Meeting, Chicago, IL.

Sutherland, S.C. & Young, M.E. (September, 2011). *Integrating an environmental cue and expert advice to increase accuracy*. Paper presented at the annual meeting of the Illinoisy Data Conference, Carbondale, IL.

Cole, J. J., Young, M.E , & Sutherland, S.C. (September, 2011). *Rich stimulus sampling for between-subjects designs improves model selection*. Paper presented at the annual meeting of the Illinoisy Data Conference, Carbondale, IL.

Sutherland, S.C. & Young, M.E. (November, 2010). *Advice utilization differences between informed and uninformed decision makers*. Poster presented at the annual meeting of the Psychonomic Society, St. Louis, MO.

Sutherland, S.C. & Young, M.E. (June, 2010). *Using experts: Informed and uninformed experience-based decision-making*. Paper presented at the annual meeting of the Illinoisy Data Conference, Normal, IL.

Sutherland, S.C. & Young, M.E. (November, 2009). *Using very inaccurate experts to improve performance*. Poster presented at the annual meeting of the Society for Judgment and Decision Making, Boston, MA.

Young, M.E., Sutherland, S.C., and Cole, J.J. (November, 2009). *Studying choice in a first-person-shooter video game*. Paper presented at the annual meeting of the Society for Computers in Psychology, Boston, MA.

Cole, J. J., Sutherland, S.C., & Young, M.E. (June, 2009). *Representative design versus systematic sampling: A Monte Carlo simulation*. Paper presented at the annual meeting of the Illinoisy Data Conference, Edwardsville, IL.

Sutherland, S.C. & Young, M.E. (June, 2009). *The utilization of expert advice: Effects of cost and accuracy*. Paper presented at the annual meeting of the Illinoisy Data Conference, Edwardsville, IL.

Sutherland, S.C. & Young, M.E. (November, 2008). *Using an expert when using the expert is harmful*. Poster presented at the annual meeting of the Society for Judgment and Decision Making, Chicago, IL.

ADDITIONAL RESEARCH EXPERIENCE

2011   Worked with Dr. Michael E. Young and Dr. David Gilbert at SIUC to set up a Neuroscan EEG lab that was to be used to further explore neurological components associated with human judgment and decision-making.

TEACHING EXPERIENCE

2015-Current University of Houston Clear Lake Psychology Department
            Psychology 6037: *Advanced Experimental Methods and Statistics*
            Psychology 6431: *User-Centered Design*
            Psychology 6036 & 6037: *Research Design and Statistics I & II*
            Psychology 6832: *Advanced Cognitive and Affective Psychology*
            Psychology 5932: *Special Topics in Applied Cognitive Psychology: Judgment and Decision Making*
            Psychology 4382: *Cognitive Psychology*
            Psychology 3315: *Psychological Thinking*
            Psychology 6439: *Practicum in Applied Cognition*
            Psychology 4389: *Independent Study (Human-Automation Interaction)*
            GAME 1301: *Foundations of Games I*

2013-2014   Radford University Psychology Department
            Psychology 301: *Analysis of Psychological Data*

Psychology 343: *Social Psychology*
Psychology 491: *Research Lab: Judgment and Decision-Making*

2013-2014   Germanna Community College Psychology Department
Psychology 230: *Developmental Psychology* (Adjunct Professor)
Psychology 200: *Principles of Psychology* (Adjunct Professor)

2007-2012   Southern Illinois University Psychology Department
Psychology 211: *Research Methods and Statistics* (Instructor)
Psychology 489: *Predicting the Future* (Guest Lecturer)
Psychology 310: *Cognitive Psychology* (Co-Instructor)
Psychology 211: *Research Methods and Statistics* (TA)
Psychology 211: *Research Methods and Statistics* (Guest Lecturer)
Psychology 471/528: *Judgment and Decision Making* (Guest Lecturer)
Psychology 489: *Dog Behavior* (Guest Lecturer)
Psychology 102: *Introduction to Psychology* (TA)

RESEARCH INTERESTS

Human Judgment and Decision Making
Expert Advice Utilization
Automated Decision Aids
Video Game Development for Research in Behavioral Economics
Serious Games

PROFESSIONAL DEVELOPMENT

Postdoctoral Research Associate

2013-Present   Northeastern University: Game Design Program
Worked on developing a citizen science video game to teach research methods and video games for researching judgment and decision making.

Service

2019-Current   Ad-Hoc Reviewer for *ACM Transactions on Interactive Intelligent Systems*.

2018-Current   Reviewer: Cognitive Engineering and Decision Making Technical Group for Best Student Paper award for the annual conference of the Human Factors and Ergonomics Society

2016-Current Faculty Advisor for Human Factors and Ergonomics Society Student Chapter at the University of Houston-Clear Lake

2016-Current Presentation/Poster judge for the annual symposium of the Houston Human Factors and Ergonomics Society, 10-20 presentation/posters reviewed per year.

2015-Current Student poster judge for the Annual Conference of the Society of Judgment and Decision Making.

2015-Current Ad-Hoc Reviewer for *Entertainment Computing*.

2020 Reviewer: ACM Computer-Human Interaction (CHI) 2021 Conference.

2020 Program Committee Member for Foundations of Digital Games (FDG) 2020 Conference (Game Artificial Intelligence track).

2019 Reviewer: ACM Computer-Human Interaction (CHI) 2020 Conference.

2019 Program Committee Member for Foundations of Digital Games (FDG) 2019 Conference (Applied Games and Gameful Design track).

2019 Student Volunteer Organizer for the annual symposium of the Houston Human Factors and Ergonomics Society.

2019 Program Committee Member for the annual symposium of the Houston Human Factors and Ergonomics Society, reviewed 50 abstract submissions for submitted posters/presentations.

2018-2019 Past-Secretary: Houston Human Factors and Ergonomics Society

2017-2018 Secretary: Houston Human Factors and Ergonomics Society

2017 Organizer for Tracing the Boundaries of Games as Research Environments workshop at Foundations of Digital Games (FDG) 2017 Conference.

2017 Conference Experience Chair for Foundations of Digital Games (FDG) 2017 Conference.

2017 Program Committee for Foundations of Digital Games (FDG) 2017 Conference.

2016-2017 Secretary Elect: Houston Human Factors and Ergonomics Society

2014 Reviewer CHI Game Competition.

2011	Undergraduate poster judge for PSYC 311 (Field Research Methods).
2010	Coordinator for Brain and Cognitive Sciences professional seminar. Description: Coordinate weekly graduate student, faculty, and visiting speaker presentations.
2007-2009	Vice President of the Brain and Cognitive Sciences graduate program registered student organization. Description: Coordinate and secure funding to bring guest lecturers to SIUC with diverse backgrounds in areas of cognitive psychology, animal learning, developmental psychology, and neuroscience.

Skills

Statistical Software:	SPSS, SAS's JMP, R, Jamovi
Programming:	Unity Game Engine, Torque Game Engine, PsyScope, C#
Statistical Techniques:	Regression, ANOVA, Linear Mixed Effects Modeling, Generalized Linear Modeling, Cluster Analysis

Affiliations

2020-Present	Member, Human Factors and Ergonomics Society Technical Group: *Human-AI-Robot Teaming*
2018-Present	Member, Psychonomic Society
2017-Present	Member, Human Factors and Ergonomics Society Technical Group: *Cognitive Engineering and Decision Making*
2017-Present	Member, Association for Computing Machinery
2016-Present	Member, Human Factors and Ergonomics Society
2016-Present	Member, Houston Human Factors and Ergonomics Society
2016-Present	Member, Digital Games Research Association
2015-Present	Member, Association for Computing Machinery Special Interest Group on Computer-Human Interaction (ACM SIGCHI)
2008-Present	Member, Society for Judgment and Decision Making
2006-Present	Member, Psi Chi