

Alina Striner

Research Interests

How can technology use interaction and multisensory design to *tell meaningful stories*?
How should we design experiences for *optimal engagement, immersion, and flow*?

Education

- 2014-2019 **PhD, Information Studies**
Advisor: Jennifer Preece
College of Information Studies, University of Maryland, College Park, MD
- 2012-2014 **Master of Sciences, Human-Computer Interaction**
Thesis advisor: Ben Bederson
College of Information Studies, University of Maryland, College Park, MD
- 2011 **Graduate Studies, Industrial Design, Semester Abroad**
Università Commerciale Luigi Bocconi, Milan, Italy
- 2009-2011 **Post-Baccalaureate, Marketing and Consumer Behavior**
Research advisor: Anastasiya Pocheptsova
R. H. Smith School of Business, University of Maryland, College Park, MD
- 2005-2009 **Bachelor of Arts, Music Performance**
Goucher College, Towson, MD

Technical Summary

- Research & Analysis**
- Experience with qualitative and mixed method data including surveys, focus groups, in-depth interviews, contextual inquiries, usability studies and heuristic evaluations
 - Experience performing quantitative analysis on big data including multiple regression and logistic analysis, and some SEM modeling experience
 - *Research Tools:* R/SPSS/Qualtrics/Gephi/E-Prime/Morae/LaTeX
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- Design Methods & Tools**
- *Prototyping Tools:* Adobe Creative Suite/Figma/Balsamiq /Axure/JustinMind
 - *Programming experience in* Java/Python/MaxMSP/Processing/Javascript/HTML/CSS
 - *Hardware prototyping using* Arduino/TinkerCad
 - *Game design using* Unity/Oculus Rift
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- Languages & Music**
- Native Speaker of *English and Russian*. Competent in *French and Italian*. Proficient in the International Phonetic Alphabet (IPA) and German Diction
 - Proficient using Sibelius and Finale composition software. Some experience with SuperCollider/ Avid Pro Tools

Research Experience

Postdoctoral ERCIM Fellow, Distributed & Interactive Systems Group, Centrum Wiskunde & Informatica (CWI), Amsterdam, NL

2019

- Authored research on audience interactivity research on Twitch and Multisensory VR
- Collaborating on multiple projects on audience participation and VR

Doctoral Research in Information Studies, Human Computer Interaction Lab, College of Information Studies, University of Maryland, College Park, MD

2014 - 2019

- Designed, built, and authored dissertation and multiple conference papers on StreamBED VR research to train citizen scientists using multisensory design.
- Authored audience participation research on interactive participation in music performances.
- Authored "Using Web Analytics" section in Rogers, Preece & Sharp *Interaction Design Textbook*

Visiting Researcher, Carnegie Mellon University, Pittsburgh, PA

2017 - 2019

- Coauthored audience interactivity design research with Jessica Hammer in the OHLab about Live Streaming on Twitch.

Research Associate, Disney Research, Pittsburgh, PA

2016 - 2017

- Proposed, built and tested, and analyzed a haptic sports experience study. Ran study using Qualtrics and analyzed using R regression analysis. Presented talk on research at Disney Research Pittsburgh.
- Proposed, designed, ran, and analyzed a study to develop a *Haptic Experience Questionnaire*
- Coauthored and presented proposal for multilevel storytelling in interactive experiences
- Designed study materials in PhotoShop and inDesign, and trained colleagues on visual design

Masters Thesis in Human-Computer Interaction, Human Computer Interaction Lab, College of Information Studies, University of Maryland, College Park, MD

2013 - 2014

- Prepared, ran and analyzed a study to improve motivation in a self-paced Python course
- Authored and defended thesis entitled *Predicting and Motivating Achievement in Self-Paced Learning: A Formative Design, Study and Evaluation*
- Proposed and coauthored a grant proposal to the MOOC Research Initiative (MRI) to study how to improve motivation and course retention in online self-paced environments

Faculty Research Assistant in Language Technology User Experience,

Center for Advanced Study of Language, University of Maryland, College Park, MD

2012 - 2013

- Coauthored a Human Factors paper and several technical reports on language user experience. Prepared conducted and evaluated contextual inquiry, usability study and heuristic evaluation of translation memory software for this research.
- Examined literature in video-game motivation and interface design, designed mockups for working memory and speech perception training iPad applications, and ran quantitative analyses on language performance metrics.

Maryland Summer Scholar/Research Assistant, Netcentric Behavioral Lab, R.H. Smith School of Business, University of Maryland, College Park, MD

2010, 2011-2012

- Awarded \$3,000 to study how UMUC graduate students balance academic and personal goals

Research Assistant, Center for Addiction, Personality, and Emotion Research Department, Department of Social Psychology, University of Maryland, College Park, MD

2011

- Coded clinical addiction data and participated in behavioral economics research meetings

Summer Research Intern in Astronomy, Department of Physics, Goucher College, Towson, MD

2007

- Analyzed Hubble telescope images and made predications about the presence of scattered light echoes in Supernovae. Presented research at the Goucher College Summer Research Symposium

Teaching and Mentorship

Guest Lecturer, Carnegie Mellon University, Pittsburgh, PA

Fall 2017

- Planned and ran a workshop at University of Irvine to study how audience interactivity framework can inform designers developing interactive audience VR prototypes for Broadway theater.
- Planned and gave a guest lecture in a Twitch game design course to teaching improv as a design tool. Goal is to help students think like a game designer, consider design needs in context of stakeholder goals, play test game mechanics and narratives, and practice dispositional goals, such as giving helpful feedback and being a good teammate.
- Planned and ran an audience interactivity design workshop to teach students to design using audience interactivity framework (work-in-progress)
- Assisted with in class design tasks and gave students design feedback

Design Mentor, Entertainment Technology Center, Carnegie Mellon University, Pittsburgh, PA

Fall 2016

- Mentored master's students semester project ("Lights Out") at the ETC. The group was developing a multisensory game in the dark, but had difficulty crafting narrative mechanics
- Developed series of *improvisation techniques* for students to actively *develop a narrative* for their project design, *appraise and critique story fit* for design goals, *frame a design* within a chosen narrative, *shape design iterations* to fit and elaborate upon narrative, and *practice moving through the narrative space* to empathize with user experiences
- *Authored short paper* about experience and pitched mini course proposal to ETC

Design Tutor, Disney Research, Pittsburgh, PA

2016-2017

- Tutored a group of interns to create create visual advertisements using Adobe Photoshop. Focused on visual aesthetics and software use

English Tutor, Milan, Italy

2011

- Taught and practiced English with four 12-year old children. Used improvisation techniques to help students improve their fluency

Lovaas ABA Autistic Tutor, Institute for Child Development, Potomac, MD.

2004 - 2006

Publications

Striner, A., Azad, S., & Martens, C. A. (2019) A Spectrum of Interactivity for Entertainment Domains. In International Conference on Interactive Digital Storytelling (ICIDS), Utah, USA, November 13-23 2019.

Striner, A. & Preece, J. (2018) Can Multisensory Cues in VR Help Train Pattern Recognition in Citizen Scientists? Presented at the *Internet of Tangle Things Workshop*, CHI 2018. April 21 - 26, Montreal, Canada

Striner, A. & McNally, B. (2017). Transitioning Between Audience and Performer: Co-Designing Interactive Music Performances with Children, *CHI Late Breaking Work*, Denver, Co.

Striner, A. (2017). Yes and...? Using Improv to Design for Narrative in Lights Out, Presented at CHI'17 workshop on Design Fiction for Mixed-Reality Performances, Denver, Co.

Striner, A. & Preece, J. (2016). StreamBED: Training Citizen Scientists to Make Qualitative Judgments Using Embodied Virtual Reality Training *CHI Late Breaking Work* San Jose, CA.

Striner, A. & Preece, J. (2016). The Simulation Game: Five Key Questions for Effective Virtual Reality Training, Presented at the *Lightweight Games User Research for Indies and Non-Profit Organizations*, CHI 2016. May 7-12, San Jose, CA.

Goldman, A. & Preece, J. (2015). Can Virtual Reality Improve Citizen Science Data Quality? Presented at the *Everyday Telepresence: Emerging Practices and Future Research Directions Workshop*, CHI 2015. Seoul, South Korea, April 18-23, 2015.

Goldman, A. (2015) Using Web Analytics. In Rogers, Y., Sharp, H., Preece, J (Eds.), *Interaction Design: Beyond Human-Computer Interaction*. Wiley.

Goldman, A. (2014). Predicting and Motivating Achievement in Self-Paced Learning. *Master's Thesis*, University of Maryland, College Park

Tare, M., Golonka, E., Crooks, C., Goldman, A., Strong, R., Rhoad, K., Bonilla, C., & Vatz, K (2014). Task characteristics related to increased target language production in text chat. Poster presented at *The American Association for Applied Linguistics* in Portland, OR.

Campbell, S., Wayland, S., Goldman, A., Blok, S., Powell, A (2013). Speaking the user's language: Evaluating translation memory software for a linguistically diverse workplace, *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, September 2013.

Technical Reports

Goldman, A., Boston, C., He Y., Bowser A., & Preece, J. (2014). Designing for Millennials: Citizen Science Websites for Generation Y. HCIL, University of Maryland, College Park.

Goldman, A (2013). Office Affairs: Predicting Tie Strength and Reciprocity at Enron. HCIL, University of Maryland, College Park.

Clark, M., Golonka, E., Lee-Ellis, S., Masters, M., Pelzl, E., & Goldman, A. (2013). *Assessing online learning: Formative assessment opportunities in BLTS courses. (TTO 2006 T.R. 2.5)*. College Park, MD: University of Maryland, Center for Advanced Study of Language

Blok, S.V., Browne, E., Campbell, S., Goldman, A., Powell, A., Wayland, S. (2012). *A study of linguists' current workflow and initial experience with MultiTrans Prism, (TTO 83405 T.R 1.1)*. College Park, MD: University of Maryland, Center for Advanced Study of Language

Clark, M. K., Masters, M. C., Osthus, P., Mathis, A., Pelzl, E., Boutz, J., Madgavkar, M., Biller, A., Goldman, A., Burns, W., & Doughty, C. J. (2012). *Authentic input, learner output, interaction, and feedback on error in distance learning courses at DLIFLC: An analysis of selected courses (TTO 82121)*. College Park, MD: University of Maryland Center for Advanced Study of Language.

Clark, M., Pelzl, E., Golonka, E., Lee-Ellis, S., Goldman, A., Vatz, K., Blake, C., Masters, M., Osthus, P., Freynik, S., Burns, W. (2013). *Delivering distance foreign language instruction: Qualitative analysis of BLTS courses. (TTO 2006 T.R. 2.4)*. College Park, MD: University of Maryland, Center for Advanced Study of Language.

Tare, M., Golonka, E., Vatz, K., Bonilla, C., Crooks, C., Strong, R., Kasmeridi, S., Goldman, A., Rhoad, K. (2013). *Interactive Homework at DLIFLC: Effects of text chat versus independent writing homework in second language learning . (TTO 2005 T.R E.11)*. College Park, MD: University of Maryland, Center for Advanced Study of Language

Presentations and Invited Talks

Striner, A. & McNally, B. (2017). Spectrum of Audience Interactivity, Poster presented at CHI, Denver, C.O., May 2017.

Striner, A. & Borovikov, A. (2017). Creating An Embodied VR Experience to Help Non-Scientists Experience the Subtle, Gradual and Cumulative Nature of Climate Change, NASA's Goddard Space Flight Center, April 2017

Striner, A. (2017). Did You Heart Skip a Beat?, Final Research Talk, presented at Disney Research, Pittsburgh, February 24, 2017

Striner, A.(2017). How Disturbed Do You Think This Stream Is? Designing Collaborative Citizen Science Training in StreamBED VR. Talk Presented at Association for Mid-Atlantic Aquatic Biologists (AMAAB) (3/30/17) and University of Maryland's HCIL Symposium (5/25/17)

Striner, A.(2016). StreamBED:Teaching Citizen Scientists to Judge Stream Quality with Embodied Virtual Reality Training, Poster presented at CHI, San Jose, C.A., May 9-12 2016.

Striner, A.(2016). StreamBED:Teaching Citizen Scientists to Judge Stream Quality with Embodied Virtual Reality Training, Poster presented at the Association for Mid-Atlantic Aquatic Biologists (AMAAB), Berkeley Springs, WV, March 31, 2016

Striner, A. (2016) StreamBED:Teaching Citizen Scientists to Judge Stream Quality with Embodied Virtual Reality Training, Human Computer Interaction Lab (HCIL) Brownbag Talk, University of Maryland, College Park, March 10, 2016.

Goldman, A. (2015). Using Virtual Reality to Train Citizen Scientists, presented at the Human Computer Interaction Lab Symposium, University of Maryland, College Park, May 28, 2015.

Goldman, A. (2015). Creating Immersive Performance Environments, Computer Music Department, Peabody Institute of the Johns Hopkins University, January 14, 2015.

Goldman, A. (2015). Creating Immersive Environments, Human Computer Interaction Lab (HCIL) Brownbag Talk, University of Maryland, College Park, October, 2014.

Goldman, A. (2014). Creating Immersive Environments through Interaction, Storytelling and Synthetic Design, Human Computer Interaction Lab (HCIL) Brownbag Talk, University of Maryland, College Park, November 13, 2014.

Awards & Honors

ERCIM Alain Bensoussan Postdoctoral Fellowship Recipient

Ann G. Wylie Dissertation Fellowship (2018) - \$15,000

Research Improvement Grant (2018) - \$600

Dean's Fellowship Award (2017) - \$5,000

University of Maryland Outstanding Graduate Assistant Award (2017)

Graduate Summer Research Fellowship (2016) - \$5,000

Dean's Award for Outstanding iSchool Project (2016)

Goldhaber Travel Grant (2015, 2018) - \$600

International Conference Student Support Award (ICSSA) (2015, 2018) - \$500

Maryland Summer Scholars Grant (2011) - \$3,000

Rosenberg Merit Scholarship for Musical Achievement (2007) - \$2,500

Polinger Scholarship for the Visual and Performing Arts (2005) - \$3,000

Professional Memberships

ACM SIGCHI, Student Member

Society for Judgment and Decision Making