

JOHN MURRAY

Ph.D. Candidate
Expressive Intelligence Studio
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EDUCATION AND EMPLOYMENT HISTORY

Education

- 2018** **Ph.D.** (Anticipated) Computer Science, University of California, Santa Cruz.
 Thesis: Analyzing Interactive Narratives using Computational Models and Player Response Data
 Co-Advisors: Michael Mateas and Noah Wardrip-Fruin
 Committee: Jim Whitehead, David Elson
- 2018** **M.S.** (Anticipated) Computer Science, University of California, Santa Cruz.
 Thesis: Using Computational Narratology to Analyze Content in Cinematic Choice-Based Adventure Games
 Co-Advisors: Noah Wardrip-Fruin and Michael Mateas
- 2010** **B.S.** Computer Science. University of Maryland, College Park.
- 2009** **B.S.** Digital Narratives. University of Maryland, College Park.

Related Experience

- 2014 - present** **CTO**, Seebright, Inc. Santa Cruz, CA.
- 2012 - 2014** **CEO**, Seebright, Inc. Santa Cruz, CA.
- 2012 - 2013** **Research Assistant.** “Crowd Sourced Help with Emergent Knowledge for Optimized Formal Verification.” DARPA-Funded, University of California, Santa Cruz.
- 2012 - 2013** **Online Course Author.** Academy of Art University, San Francisco, CA
- 2011 - 2012** **Teaching Assistant**, University of California, Santa Cruz, CA
- 2010** **Instructor**, Academy of Art University, San Francisco, CA.
- 2009** **Summer Graduate Assistant.** University of Maryland Institute for Advanced Computing Studies Center for Bioinformatics & Comp. Biology.

PUBLICATIONS

Books

- Salter, A.; **Murray, J.** (2014). *Flash: Building the Interactive Web*. Platform Studies Series, MIT Press. (Peer reviewed).
 Reviewed in ACM Computing Reviews (February 2015).
 Shortlisted for the N. Kate Hayles Electronic Literature Award (August 2015).

Manuscripts in Progress

Reed, A.; **Murray, J.**; Salter, A. (under review at Bloomsbury) “Adventure Games: Playing the Outsider.”

Book Chapters

Salter, A. and **Murray, J.** (Accepted pending contract). “ELit After Flash: The Rise (and Fall) of a ‘Universal’ Platform.” *Electronic Literature: Contexts, Forms, and Practices*. Edited by James O’Sullivan and Dene Grigar. (Editor reviewed)

Conference Proceedings

Murray, J.; Mateas, M.; Wardrip-Fruin, N. (2017). “Proposal for analyzing player emotions in an interactive narrative using story intention graphs.” In *Proceedings of the 12th International Conference on the Foundations of Digital Games 2017*, Hyannis, MA, Aug. 14-17. ACM. (Peer reviewed)

Salter, A.; **Murray, J.** (2014). “Marking New Ground: Flash, HTML5 and the Future of the Web Arcade.” In *Foundations of Digital Games*. Fort Lauderdale, FL April 3-7, 2014. (Peer reviewed)

Logas, H., Whitehead, J., Mateas, M., Vallejos, R., Scott, L., **Murray, J.**, Compton, K., Osborn, J.C., Salvatore, O., Shapiro, D.G. and Lin, Z., 2014. “Xylem: The Code of Plants.” In *Foundations of Digital Games*. Fort Lauderdale, FL April 3-7, 2014. (Peer reviewed)

Logas, H.; Whitehead, J.; Mateas, M.; Vallejos, R.; Scott, L.; Shapiro, D.; **Murray, J.**; Compton, K.; Osborn, J.; Salvatore, O.; Lin, Z.; Sanchez, H.; Shavlovsky, M.; Cetina, D.; Clementi, S.; Lewis, C. (2014). “Software Verification Games: Designing Xylem, The Code of Plants.” In *Foundations of Digital Games*, Fort Lauderdale, FL April 3-7, 2014. (Peer reviewed)

Murray, J. (2013). “Collaborative Procedurally Elaborated Storytelling” In *Doctoral Consortium, Foundations of Digital Games*, Chania, GR. 14-17 May. (Peer reviewed)

Other Publications

Salter, A.; **Murray, J.** (2014). “How Flash Games Shaped the Internet.” *The Atlantic: Tech*. November 29. <<http://www.theatlantic.com/technology/archive/2014/11/how-flash-games-shaped-the-internet/383136/>>

Murray, J. (2011): “Kinecting the Dots: The Kinect’s Recent SDK Launch”, ProfHacker, Chronicle of Higher Education. August 17. <<http://www.chronicle.com/blogs/profhacker/kinecting-the-dots-the-kinects-recent-sdk-launch/35428>>

PATENTS

Issued Patents

2016, **Murray, J.**; Michels, D.; Lachman, R.; Head Mounted Display with Remote Control. US Patent App. 14/177,208

Adds the idea of a remote control to original design.

2016, Compton, K.; **Murray, J.**; Michels, D.; Head mounted display for viewing three dimensional images. US Patent App. 13/667,200

Head-mounted features & lens generalizations including Fresnel over original configuration

Patent Applications

2016. **Murray, J.**; Compton, C.; Head Mounted Display with Lens. US Patent App. 15/269,476. Status: Pending Non-Provisional, Filed September 19. Published January 19, 2017.

Broaden initial HMD patent to not need remote control and cover different orientations

2016. **Murray, J.** Device and Methods for Augmented Reality Viewing For a Plurality of Display Sizes. US Patent App. 62/337,379. Status Expired Provisional. Filed September 2

2016. **Murray, J.**; Rossi, R.; Eckhardt, S. Methods and apparatus for reflected display of images. US Patent App. 14/988,615. Status: Pending, Non-provisional Filed January 5

Alternative three-curved mirror configuration that fits in a smaller form factor

2015. **Murray, J.**; Rossi, R.; Eckhardt, S.; Methods and apparatus for reflected display of stereoscopic images. US Patent App. 62/099,581. Filed January 15. Status: Expired provisional

2014. **Murray, J.** Remote Control for Head Mounted Display. Filed March 18. Expired Provisional.

Simple remote control for HMDs

2014. **Murray, J.**; Michels, D.; Lachman, R.; Head Mounted Display with Remote Control. Chinese Patent Application No. 201410238807.9. Status: Pending Non-provisional

Chinese filing for US Patent App. 14/177,208

2014. **Murray, J.**; Michels, D.; Lachman, R.; Head Mounted Display with Remote Control. European Patent No 1 4170773.7. Status: Pending Non-provisional.

European filing for US Patent App 14/177,208

CONFERENCES AND TALKS

Invited Talks and Keynotes

Murray, J. (2017). "Augmented Reality." York University, Toronto, Ontario, Canada. October 12.

Murray, J. (2016). "Reality Media." CableLabs Winter Conference, Orlando, FL, Feb. 10.

Murray, J. (2014). "Deep Interaction for Augmented Experience." Inside AR, Munich, Germany, October 29.

Peer Reviewed Conference Presentations

Murray, J. (2018). Toronto, Ontario, Canada. “Disarming Grendel: Analyzing an Ethical Dilemma in Telltale’s ‘The Wolf Among Us’ Episode 1”. March 14-18.

Murray, J.; Mateas, M.; Wardrip-Fruin, N. (2017). “Proposal for analyzing player emotions in an interactive narrative using story intention graphs.” In *Foundations of Games 2017*, Hyannis, MA, Aug. 14-17. ACM. (Peer reviewed)

Murray, J.; (2017). “What is Chosen: Rethinking Choice-based Narrative Games Traversals”. Electronic Literature Association Conference, Porto, Portugal, July 18-20.

Murray, J. (2016). “Methods of Interrogation: Sensemaking Interfaces in Electronic Literature Mysteries.” Victoria, B.C., Canada, June 10-12

Murray, J. (2016). “Toward Analyzing Semantic Structures in Choice-Based Games.” Exploring New Approaches to Narrative Modeling and Authoring Workshop. 9th International Conference on Interactive Digital Storytelling. Los Angeles, CA. Nov 15-18

Murray, J. (2013). “Open and Closed: Emerging Augmented Reality Bridge Platforms” Popular Culture Association, Washington, DC. March 23-30

Murray, J. (2012). “Towards Collaborative Storytelling with Augmented Reality.” Authoring Solutions for Augmented Reality Workshop. International Symposium on Mixed and Augmented Reality, Atlanta, Georgia. Nov. 5-8

Murray, J.; Garbe, J. (2012). “Reading Augmented Spaces and the Dimensions That Define Them” Electronic Literature Organization Conference, Morgantown, West Virginia, June 20-23

Salter, A.; **Murray, J.** (2012). “Being Harry Potter: Playing at Wizardry Across Platforms.” Ascendio: A Harry Potter Symposium, Orlando, Florida, July 12-15.

Murray, J. (2011). “Tolkien Transmediation: The Alchemy of Modern Roleplaying” International Conference for the Fantastic in the Arts, Orlando, Florida, March 15-19.

Workshops Taught

Murray, J. Sun, I. (2017). “Young Inventor’s Augmented Reality Workshop” York University, Canada. Oct. 13-14.

Murray, J. (2016). “Textual Interfaces in Virtual and Augmented Reality.” Electronic Literature Organization Conference, Victoria, Canada, June 10-12.

Murray, J. Garbe, J. (2012). “Augmented and Alternate Reality Design Patterns.” Workshop on Mixed Reality Games, Computer Supported Collaborative Work Conference, Seattle, WA. Feb. 11-15.

CREATIVE ACTIVITY

Exhibits

Marino, M.; **Murray, J.;** Rock, J. (2017). “Salt Immortal Sea” Exhibited at the Mosteiro São Bento da Vitória at the Electronic Literature Festival, Porto, Portugal, July. (Juried)

C.V.

iPad-based narrative game fusing choice-based narrative and computer-controlled LEDs that charts the experience of being a refugee and compares it with ancient Greek myths. Story architecture, software development and hardware design & implementation.

Murray, J; Salter, A. (2015). "From Beyond." *Hybridity and Synesthesia* exhibition at the Electronic Literature Organization Media Arts Show, Bergen, Norway, August. (Juried)
Digital-physical hybrid interface installation featuring an original Ouija board variant.
Discussed by Robert Fletcher in "Digital Ekphrasis and the Uncanny: Toward a Poetics of Augmented Reality," *Electronic Book Review*, March 15, 2017.

Salter, A.; **Murray, J.** (2014). "View from Within." (Virtual reality headset version) *Hold the Light* exhibition at the Electronic Literature Organization Media Arts Show, June 18-12. (Juried)

Infinite canvas comic using over five hundred original image files to craft a continuous single-panel narrative, explored through a Unity application running on a virtual reality headset prototype.

Salter, A.; **Murray, J.** (2014). "View from Within." (Mac version) Displayed at the SVAD Faculty Art Show, UCF, October.

GRANTS AND FELLOWSHIPS

External

2012-2013. **DARPA. Contributor.** Co-PIs Jim Whitehead and Michael Mateas. "Crowd Sourced Help with Emergent Knowledge for Optimized Formal Verification." University of California, Santa Cruz.

Internal

2010 **Doctoral Fellowship**, University of California, Santa Cruz

2009 **IVSP Grant**. University of Maryland, College Park.

AWARDS AND HONORS

2017-2019 **HASTAC Scholar**. Sponsor: Caitlin Fisher

TEACHING

Co-Teaching

CMPS 179 **Kinect Game Design Practicum**, Spring 2012

Teaching Assistant, University of California, Santa Cruz (2011-2012)

CMPS 160 **Artificial Intelligence**, Bob Levinson, Winter 2012

CMPS 140 **Computer Graphics**, James Davis, Fall 2011

CMPS 80K **Fundamentals of Game Design**, Noah Wardrip-Fruin, Spring 2011

Guest Lecturer (2017)

2017. Future Cinema 1, York University, Toronto, Canada. Oct 12

Lecture: Augmented Reality Development with Unity

C.V.

Instructor, Academy of Art University, San Francisco, CA 2010

WNM 801-11.OL1 Group Directed Study: Scripting, Spring 2010

WNM 801-11.OL1 Group Directed Study: Scripting, Summer 2010

Curriculum Design (Academy of Art)

WNM-811: Scripting 1: Fundamentals.

WNM-812: Scripting 2: Interactivity & Web Services.

WNM-813: Scripting 3: Mobile Applications & Data Management.

Advisees, Directed Study

Judi Tomrich, MFA Student, Academy of Art University, Summer 2010

SERVICE

Profession

2017. Peer Reviewer, International Conference on Interactive Digital Storytelling.

2016. Peer Reviewer, International Conference on Interactive Digital Storytelling.

2015. Peer Reviewer, Electronic Literature Organization Conference

TECHNICAL SKILLS

Programming Languages

JavaScript, C++, ActionScript, C#, Lisp, Python, PHP, UnityScript, Java, TypeScript, Prolog

Markup Languages

HTML5, XML, CSS

Database Environments

MongoDB, MySQL, PostgreSQL

Game Design and Development

Twine, Unity3D, Adobe Flash / Animate, Adobe Edge, Game Maker, Scratch, Ink