

I. Introduction

Scott Swearingen
Department of Design
College of Arts and Sciences
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Portfolio: <https://svswearingen.com>

Biographical Narrative

Scott Swearingen is an Assistant Professor in the Department of Design at The Ohio State University. With a research focus in game design for social good and the design of game mechanics for enhancing collaborative play, his work cultivates the human experience of connectivity across a variety of physical and social boundaries. His award-winning games and other works have been exhibited at national and international conferences and shows including SIGGRAPH, SIGGRAPH-ASIA, CURRENTS New Media, GLS, IEEE-GEM, IFIP-ICEC, Montreal Independent Games Festival, and HASTAC. Prior to joining Ohio State, Scott worked in the video game industry for over ten years as a game designer, level designer, and environment artist at multiple studios including MAXIS, Electronic Arts, and Gearbox Software. Here, Scott collaborated on a variety of award-winning games and franchises including Medal of Honor, Brothers in Arms, The Simpsons, Dead Space, and The Sims while working with large interdisciplinary teams comprised of engineers, artists, designers, and writers.

Current Appointments

Assistant Professor, Aug 2016- Present, Department of Design, The Ohio State University, Columbus, OH

Academic Appointments

Assistant Professor, Aug 2013 - Aug 2016, School of Arts, Technology, and Emerging Communication, University of Texas at Dallas, Richardson, TX

Assistant Professor, Aug 2005 - Aug 2006, School of Arts, Technology, and Emerging Communication, University of Texas at Dallas, Richardson, TX

Other Appointments

Game Designer, 2010-2012, MAXIS/Electronic Arts Inc., 209 Redwood Shores Pkwy, Redwood City, CA

Level Designer, 2006-2010, Electronic Arts Inc., 209 Redwood Shores Pkwy, Redwood City, CA

Level Designer, 2005, Gearbox Software, 101 E. Park Blvd. #1200, Plano, TX

Level Designer, 2003-2004, TKO-Software, 2161 Delaware Ave., Santa Cruz, CA

Degrees

M.F.A., May 2004, The Ohio State University, College of Arts and Sciences, Department of Art (258 Hopkins Hall, 128 N. Oval Mall, Columbus, OH 43210-1363), Art & Technology

B.F.A., December 1998, The Ohio State University, College of Arts and Sciences, Department of Art (258 Hopkins Hall, 128 N. Oval Mall, Columbus, OH 43210-1363), Art & Technology

Fellowships, Internships, Residency

None

Certifications and Licensures

None

II. Core Dossier

Research

1) Brief Description of the Focus of the Candidate's Research, Scholarly or Creative Work, Major Accomplishments, and Plans for the Future, Including Works in Progress

Among the various definitions of games, one common thread that stretches near-unanimously through them all is that games have rules that limit players. Rules that are explicit. Rules that are unambiguous. Rules that govern the quality of play and help to define both its endogenous and external value. More specifically, rules that are applied when a player interacts with a game are referred to as *game mechanics* and *they* provide the framework out of which the *experience* of play emerges. In my project-based research, my primary contributions to game design are mechanical in nature. That is, I design systems that regulate the back-and-forth relationship between player-input and game-output. Other features of game design generally include aesthetics, narrative context, and the underlying technology that a game is built upon such as the latest computer graphics card or 3D printed character miniatures and tokens for tabletop games. Technology is of particular interest to me because it is so closely tied with mechanics in how it provides the medium through which the player and game interact with one another.

The games that I design magnify specific characteristics of play as a source for social good (e.g., inclusion, embodiment, and connection). In particular, I design *collaborative* games that promote positive social interactions by distributing activities between players and encourage them to work together to achieve a common goal. Whether these players are taking turns one at a time or continuously engaged with the game, success hinges upon them planning their moves communally while advising one another and discussing overarching strategies in pursuit of their next objective. Designing game mechanics that elicit collaborative play is the foundation of my research.

In my research, **the mechanics of collaborative play** extend beyond the isolating screen-based experiences commonly found in digital games. Rather, the games that I design reach into the intersection of the digital and the analog to maximize the affordances of play as a physical activity. While my games are comprised of many digital features such as audio and video, they also have just as many analog qualities to them. They are designed to be played in person and cannot be played alone; they require that their players be present and physically collaborate; they must be played in a shared physical space rather than online. Achieving this hybridization of digital/analog play requires that I utilize multiuser-enabling technologies that have the capacity to receive and/or transmit physical and positional data such as Bluetooth-microcontrollers, human body communications (HBC) sensors, force sensitive resistors, depth sensors, 4-channel audio interfaces, projection mapping, and augmented reality devices. I seek out these and new technologies because they provoke my research to expand what collaborative play is capable of and thereby create new opportunities for me to design game mechanics that are future-oriented while providing positive social impact.

My research methods are informed by several years of work experience in the video game industry as a level designer and game designer. Signage that read '*Controller Feel Is Everything*' hung proudly from the ceiling of our design pit at Electronic Arts, rallying the team to always

meet the needs and expectations of the player first and foremost. Did the controls feel responsive or loose? Was the interaction intuitive or clumsy? Was the reward for button presses satisfying or not? The player's experience (both physical and psychological) was central to our goals and objectives and was always reason enough to pivot our designs. This data was a product of rigorous internal and external testing that was conducted at every point of production. My work experience also taught me the value of *teampplay*. Collaborating with other disciplines throughout the studio (e.g., Engineering, Art, Animation, Audio, FX, Story, Localization, etc.) provided me with a strong working framework to successfully collaborate with a variety of departments and colleges across Ohio State: The College of Engineering, The College of Nursing, The School of Music, the Departments of Dance, Theatre, Art, and of course Design. Working in teams is reflected throughout all my creative scholarship.

The major accomplishments of my work include awards won at international game festivals and conferences including 'Best in Innovation' and 'Best in Social Impact' at the Montreal Independent Games Festival as well as a patent titled "Systems for Collaborative Interaction Using Wearable Sensors" that was a result of ongoing research conducted between the Department of Design and the Colleges of Engineering and Nursing at Ohio State. This patent is for a collaborative digital gaming platform that normalizes the experience of play through touch-based interactions and is intended to be used between the moderate-to-severely cognitively and/or physically disabled and their caregivers. It has also inspired new coursework ("Design 4650: Collaborative Design") that connects undergraduate Design students designing for social good to PhD- and Masters-level research in Electrical Engineering. While I seek to advance my research into the mechanics of collaborative play, increasing the scope and breadth of my player population also raises new questions. Where does collaborative play as a series of symmetrical interactions break down? What challenges arise from asymmetrical collaboration in terms of player agency? How can the experience of play become more accessible? By continuing this line of inquiry, I will expand the contributions to this academic specialty through my creative scholarship.

2) List of books, articles, and other published papers

Published Work Type	Since Last Promotion/ Date of Hire	Total
a) Books and monographs	0	0
b) Edited books	0	0
c) Chapters in edited books	0	0
d) Bulletins and technical reports	0	0
e) Peer-reviewed journal articles	0	0
f) Editor-reviewed journal articles	1	1
g) Reviews	0	0
h) Abstracts and short entries	3	3
i) Papers in proceedings	8	8
j) Unpublished scholarly presentations	19	19
k) Potential publications under review	0	0
Total	31	31

a) Books (Other than Edited Volumes)

None

b) Edited Books

None

c) Chapters in Edited Books

None

d) Bulletins, Tech Reports, Fact Sheets

None

e) Peer-reviewed Journal Articles

None

f) Editor-Reviewed Journal Articles

- Balaji Dontha, Kyoung Swearingen, **Scott Swearingen**, Susan E. Thrane, Asimina Kiourti. "Wearable Sensors Based on Force-Sensitive Resistors for Touch-Based Collaborative Digital Gaming." *Sensors*, vol. 22, no. 1, Jan. 2022, p.342. <https://doi.org/10.3390/s22010342>. [peer reviewed]

g) Reviews (indicate whether peer reviewed)

None

h) Abstract and short entries (indicate whether peer reviewed)

- **Scott V. Swearingen** and Eunkyong L. Swearingen. “*Games and Storytelling for Design Foundations*” CUNY Games Conference 4.0, City University of New York, New York City, NY January 2018, p. 31. [peer reviewed]
- **Scott V. Swearingen** and Eunkyong L. Swearingen. “*Wall Mounted Level*” CUNY Games Conference 4.0, City University of New York, New York City, NY January 2018, p. 32. [peer reviewed]
- **Scott Swearingen** and Kyoung Swearingen. “*Wall Mounted Level*” HASTAC 2017, Orlando, FL, November 2-4, 2017, p. 130. [peer reviewed]

i) Papers in proceedings (indicate whether peer reviewed)

- **Scott Swearingen**, Kyoung Swearingen, Dr. Fede Camara Halac, Sruthi Ammannagari, and Matt Hall. “*The Woods AR Game*”, IFIP- ICEC, International Conference on Entertainment Computing 2021, Coimbra, Portugal, November 1-5, 2021, Proceedings pp. 501-504, https://doi.org/10.1007/978-3-030-89394-1_44. [peer reviewed]
 - (We were invited to present “*The Woods*” in-person for the “Interactive Entertainment / Experiential Works” session but unable to due to Covid-19 international travel restrictions)
- Kyoung Swearingen, **Scott Swearingen**, Dr. Fede Camara Halac, Sruthi Ammannagari, and Matt Hall. “*The Woods: A Mixed-Reality Two-Player Cooperative Game*”, SIGGRAPH 2021, Art Papers, Virtual, August 9-13, 2021. Proceedings of the ACM on Computer Graphics and Interactive Techniques, Volume 4, Issue 2, August 2021, Article No: 30, pp. 1-7, <https://doi.org/10.1145/3465616> [peer reviewed]
- Kyoung Swearingen and **Scott Swearingen**. “*The Woods: A Mixed-Reality Multiplayer Cooperative Game*”, HCI International 2021, Washington DC, USA, July 24-29, 2021. volume 29, LNCS 12790, pp. 388-397, https://doi.org/10.1007/978-3-030-77414-1_28 [peer reviewed]
- Kyoung Swearingen and **Scott Swearingen**. “*Designing ‘Wall Mounted Level’ – A Cooperative Mixed-Reality Game about Reconciliation*”, IFIP-ICEC 2018, Poznan, Poland, September 17-20, 2018. Lecture Notes in Computer Science, vol 11112. Springer, Cham, p. 284, https://doi.org/10.1007/978-3-319-99426-0_30 [peer reviewed]
- Kyoung Lee Swearingen and **Scott Swearingen**. “*Designing a Cooperative Mixed-Reality Game about Reconciliation*”, 2018 IEEE Games, Entertainment, Media Conference (GEM), Galway, Ireland, August 15-17, 2018. pp. 1-9, DOI:[10.1109/GEM.2018.8516538](https://doi.org/10.1109/GEM.2018.8516538) [peer reviewed]

- Kyoung Lee Swearingen and **Scott Swearingen**. “*Wall Mounted Level: A Cooperative Mixed Reality Game about Reconciliation*”, ACM SIGGRAPH 2018, Posters, Vancouver, BC, Canada, August 12-16, 2018. Article No.:20, pp. 1-2, DOI: <https://dl.acm.org/doi/10.1145/3230744.3230771> [peer reviewed]
- Kyoung Lee Swearingen and **Scott Swearingen**. “*Games and Storytelling for Design Foundations*”, the 34th National Conference on the Beginning Design Student (NCBDS), University of Cincinnati, OH, March 1-3, 2018. Vol 34 No. 1 (2018), <https://journals.uc.edu/index.php/ncbds/article/view/787> [peer reviewed]
- **Scott Swearingen** and Kyoung Lee Swearingen. “*Creating Virtual Environments with 3D Printing and Photogrammetry*”, SIGGRAPH-ASIA 2016, Creating Virtual Environments Workshop, Macau, China, November 2016. Article No.: 1, Pages 1-4 DOI: <https://doi.org/10.1145/2992133.3002169> [peer reviewed]

j) Unpublished Scholarly Presentations (Indicate Whether Peer Reviewed)

- **Scott Swearingen**, Kyoung Lee Swearingen, Dr. Fede Camara Halac, Matthew Hall, and Sruthi Ammannagari. “*The Woods: A Mixed-Reality Cooperative Game*”, 2022 Games+Learning+Society (GLS) Conference, A Well-Played Presentation, University of California, Irvine, CA, June 15-17, 2022. [peer reviewed]
- Kman NE, Price A, Berezina-Blackburn V, Patterson J, Maicher K, Panchal AR, Way DP, McGrath J, Luu K, Oliszewski A, **Swearingen S**, Danforth D. “*Virtual Reality to Train and Assess Emergency Personnel Responding to A Mass Casualty Incident*”
 - The Ohio State University Department of Emergency Medicine Annual Spring Research Day, Podium Presentation, Columbus, OH, April 2022. [panel reviewed]
 - International Meeting on Simulation in Healthcare (IMSH) Annual Meeting, Poster Presentation, Los Angeles, CA, January 2022. [panel reviewed]
 - National Association of Emergency Medical Services Physicians (NAEMSP) Annual Meeting, Poster Presentation, San Diego, CA, January 2022. [panel reviewed]
- Kyoung Lee Swearingen and **Scott Swearingen**, “*The Woods: - A Collaborative Augmented Reality Game*”, Global Digital Humanities Symposium, Michigan State University (MSU), East Lansing, Michigan, March 23-25, 2022 [peer reviewed]
- Kyoung Swearingen and **Scott Swearingen**. “*The Woods: Cooperative Augmented Reality Game*”
 - Sixteenth International Conference on the Arts in Society (Virtual), The University of Western Australia, School of Design Perth, Australia, Jun 15 - 18, 2021 [peer reviewed]

- Fifteenth International Conference on Design Principles & Practices (Virtual), Universidad de Monterrey, Mexico, March 3-5, 2021 [peer reviewed]
- Technarte 2020, Art and Technology International Conference, Virtual, November 12-13, 2020 [peer reviewed]
- **Scott V. Swearingen** and Kyoung Swearingen. *“The Woods”*, College Arts Association, CAA 2021 Annual Conference, Poster Session, Virtual, Feb 10-13, 2021, [peer reviewed]
- **Scott Swearingen** and Kyoung Lee Swearingen. *“The Woods: A Local Cooperative AR Game”*, Fifteenth International Conference on The Arts in Society, National University of Ireland Galway, Galway, Ireland, Jun 24-26, 2020, [peer reviewed] (Unable to present project in-person due to Covid-19 international travel restrictions)
- Kyoung Swearingen, **Scott Swearingen**, Asimina Kiourti, Susan Thrane. *“Circle: A Collaborative Gaming Platform for Disabled Children”*, Healthcare Innovation and Entrepreneurship Workshop, The Ohio State University, September 23, 2019 [peer reviewed]
- Kyoung Lee Swearingen and **Scott Swearingen**. *“Designing a Cooperative Mixed Reality Game about Reconciliation”*, IEEE-GEM 2018, Galway, Ireland, August 16th, 2018 [peer reviewed]
- Kyoung Lee Swearingen and **Scott Swearingen**. *“Wall Mounted Level”*
 - IFIP-ICEC 2018, Poster Session, Poznan, Poland, September 17, 2018 [peer reviewed]
 - ACM SIGGRAPH, Poster Session, Vancouver, BC, Canada, August 12-16, 2018 [peer reviewed]
- **Scott Swearingen** and Kyoung Lee Swearingen, *“Symposium: ‘Wall Mounted Level’”*, 2018 North Texas Digital Fabrication Symposium, Texas Women’s University, Denton, TX, April 21, 2018, [peer reviewed]
- Kyoung Lee Swearingen and **Scott Swearingen**. *“Games and Storytelling for Design Foundations”*
 - 2018 National Conference on the Beginning Design Student (NCBDS), Storytelling Session, University of Cincinnati, Cincinnati, OH, March 1-3, 2018 [peer reviewed]
 - CUNY Games Conference 4.0, Composition and Storytelling Session, City University of New York, New York City, NY, January 2018 [peer reviewed]
- **Scott Swearingen** and Kyoung Lee Swearingen. *“Creating Games with 3D Printing, Photogrammetry and Projection Mapping Techniques”*, GlitchCon, Minneapolis, MN, May 5, 2017 [peer reviewed]

- **Scott Swearingen** and Kyoung Lee Swearingen. “*Creating Virtual Environments with 3D Printing and Photogrammetry*”, SIGGRAPH ASIA 2016, Creating Virtual Environments Session, Macau, China, December 5, 2016, [peer reviewed]

k) Potential publications under review (indicate authorship, date of submission, and to what journal or publisher the work has been submitted)

None

3) List of creative works pertinent to your professional focus

Creative Work Type	Since Last Promotion/ Date of Hire	Total
a) Artwork	0	0
b) Choreography	0	0
c) Collections	0	0
d) Compositions	0	0
e) Curated exhibits	3	3
f) Exhibited artwork	6	6
g) Inventions and patents	2	2
h) Moving images	0	0
i) Multimedia/databases/websites	0	0
j) Radio and television	0	0
k) Recitals and performances	0	0
l) Recordings	0	0
m) Other creative works	0	0
Total	11	11

a) Artwork

None

b) Choreography

None

c) Collections

None

d) Compositions

None

e) Curated Exhibits

- **Scott Swearingen** and Kyoung Swearingen. "[The Woods](#)", Game
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team's prototyping efforts focused on player collaboration using various augmented reality and projection mapping technologies that led to our final outcome.
 - 2022 Games+Learning+Society (GLS) Conference, Game Showcase, University of California, Irvine, CA, June 15-17, 2022, 50% effort [juried]
 - Center for Contemporary Arts, Curated by Mariannah Amster and Frank Ragano from CURRENTS New Media, Santa Fe, New Mexico, June 18-27, 2021, 50% effort [juried]
- **Scott Swearingen** and Kyoung Swearingen. "[Wall Mounted Level v.4](#)", East | West Gallery, Curated by Danielle Avram, North Texas Digital Fabrication Symposium, Texas Women's University, Denton, TX, April 20-21, 2018, 50% effort [juried]
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team's prototyping efforts focused on player collaboration using various projection mapping technologies as well as research in microprocessors that can detect human touch and skin-to-skin contact.

f) Exhibited Artworks

- Kyoung Swearingen and **Scott Swearingen**. "[Wall Mounted Level v.5](#)", Game, IFIP-ICEC 2018, Poznan, Poland, September 17, 2018, 50% effort [peer reviewed]
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team's prototyping efforts focused on player collaboration using various projection mapping technologies as well as research in microprocessors that can detect human touch and skin-to-skin contact.
- **Scott V. Swearingen** and Eunyoung L. Swearingen and. "[Wall Mounted Level v.3](#)", Game, CUNY Games Conference 4.0, Arcade Demos, City University of New York, New York City, NY, January 22, 2018, 50% effort [peer reviewed]
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team's prototyping efforts focused on player collaboration using various projection mapping technologies as well as research in microprocessors that can detect human touch and skin-to-skin contact.

- **Scott Swearingen** and Kyoung Lee Swearingen. “[Wall Mounted Level v.2](#)”, Game, MEGA-MTL Montreal Expo Gaming Arcade, Montreal Independent Games Festival, Montreal, Canada, November 18-19, 2017, 50% effort [peer reviewed]
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team’s prototyping efforts focused on player collaboration using various projection mapping technologies as well as research in microprocessors that can detect human touch and skin-to-skin contact.
- **Scott Swearingen** and Kyoung Swearingen. “[Wall Mounted Level v.1](#)”, Game, HASTAC 2017, Orlando, FL, November 2-4, 2017, 50% effort [peer reviewed]
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team’s prototyping efforts focused on player collaboration using various projection mapping technologies as well as research in microprocessors that can detect human touch and skin-to-skin contact.
- **Scott Swearingen**, Kyoung Lee Swearingen, J. Eisenmann, Ben Schroeder. ‘[Physical Scroller](#)’, Collaboration for Humane Technologies, The Advanced Computing Center for the Arts and Design, The Ohio State University, March 6-7, 2017, 25% effort
 - Responsible for leading our game design and mechanics design (see Research Statement, Section 3) throughout the production process. I also lead our team’s prototyping efforts using projection mapping and depth sensing technologies to orient ourselves around the concepts of inclusion, livability, equity, and agency to further provoke player collaboration.
- Kyoung Lee Swearingen and **Scott Swearingen**. “[Beacon](#)”, Video and Sculpture. Research Through Making. Urban Arts Space, Columbus, OH, August 23 – September 24, 2016. 50% effort
 - Responsible for leading the design of our game mechanics (see Research Statement, Section 3) throughout the production process, in particular as they relate to in-game camera and navigation. I also lead our team’s prototyping efforts using various technologies that enabled us to create a working development process that transitioned between digital and physical artifacts, the core feature of this project.

g) Inventions and Patents

- Kyoung Lee Swearingen, **Scott Swearingen**, Susan Thrane, Asimina Kiourti, ‘*Systems for Collaborative Interaction Using Wearable Technology*’, Patent Application, U. S. Patent and Trademark Office (USPTO), Reference: 10336-518W01, Application No.: PCT/US2022/015077, Feb 3, 2022

- Kyoung Lee Swearingen, **Scott Swearingen**, Susan Thrane, Asimina Kiourti, ‘*Systems for Collaborative Interaction Using Wearable Technology*’, Provisional Patent, U. S. Patent and Trademark Office (USPTO), Reference: 10336-518PV1, Feb 3, 2021

h) Moving Image

None

i) Multimedia / Database / Website

None

j) Radio and Television

None

k) Recitals and Performances

None

l) Recordings

None

m) Other Creative Works

None

4) Description of quality indicators of your research, scholarly or creative work such as citations, publication outlet quality indicators such as acceptance rates, ranking or impact factors of journal or publisher

In 2016, I co-authored a workshop titled ‘*Creating Virtual Environments with 3D Printing and Photogrammetry*’ which was an extension of my research on ‘[Beacon](#)’ and was accepted into SIGGRAPH-ASIA 2016. Acceptance rate for SIGGRAPH-ASIA 2016 was 20%. In 2017, I designed ‘[Wall Mounted Level v.2](#)’ and it was accepted into the Montreal Independent Games Festival which had over 10,000 in attendance. Here it won two peer-reviewed awards: (1) Best in Innovation, (2) Best in Social Impact. At IFIP-ICEC 2018, September 17, Poznan, Poland, ‘[Wall Mounted Level v.5](#)’ won another award for ‘Special Recognition Demo / Art Exhibit’. In 2021, I co-authored the Art Paper “*The Woods: A Mixed-Reality Two-Player Cooperative Game*” which was published at SIGGRAPH 2021. SIGGRAPH is widely considered the most prestigious forum for the publication of computer graphics research with a nearly constant acceptance range of 15% to 28% for papers. Also in 2021, ‘[The Woods](#)’ was exhibited at CURRENTS New Media at the Center for Contemporary Arts in Santa Fe, New Mexico. In 2021 and 2022, I was Co-PI on both the Provisional Patent and Patent Application titled “*Systems for Collaborative Interaction Using Wearable Technology*” which was the direct result of my research on ‘[Circle](#)’.

5) Research Funding

a) Funded Research, including Contracts and Clinical Trials, on Which the Candidate is or has been the Principal Investigator

- *Circle: A Collaborative Gaming Platform for Disabled Children and Their Families*
 - Project: [‘Circle’](#)
 - December 2019 – December 2020
 - PI: **Scott Swearingen**, Assistant Professor, Department of Design
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing, Dr. Asimina Kiourti, Assistant Professor, College of Engineering
 - I serve as team leader, and my main intellectual contributions are game design, mechanics design and technology prototyping, and supervising student workers
 - Global Arts + Humanities Discovery Theme (GAHDT), Open Grant, College of Arts and Sciences, The Ohio State University
 - \$35,000.00 (100% to Department of Design)

b) Funded Research, including Contracts and Clinical Trials, on Which the Candidate is or has been the Co-Investigator

- *The Woods: Funding Extension*
 - Project: [‘The Woods’](#)
 - September 2021 – May 2022
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design, Dr. Marc Ainger, School of Music
 - Other Collaborators: Dr. Fede Camara-Halac, Matthew Hall, and Sruthi Ammannagari
 - I serve as team leader, and my main intellectual contributions are game design, mechanics design, technology prototyping, and supervising student workers
 - Global Arts + Humanities Discovery Theme (GAHDT), Arts Creation Grants Special Initiatives, funding extension, College of Arts and Sciences, The Ohio State University
 - \$15,682.00 (100% to Department of Design)
- *A Collaborative Digital Gaming Platform for Children with Disabilities Using Human-Centered Technology and Touch*
 - Project: [‘Circle’](#)
 - June 2020 – March 2023 (18-month extension due to Covid-19)
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing, Dr. Asimina Kiourti, Assistant Professor, College of Engineering
 - I serve as team leader, and my main intellectual contributions are game design, mechanics design, technology prototyping, and supervising student workers
 - Battelle Engineering, Technology and Human Affairs (BETHA) Grant

- \$33,794.00 (100% to Department of Design)
- *The Woods*
 - Project: [‘The Woods’](#)
 - April 2019 – May 2021
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design, Dr. Marc Ainger, School of Music
 - Other Collaborators: Rosalie Yu, Creative Technologist, Columbia Graduate School of Journalism; Skylar Wurster, Undergraduate Student Researcher, College of Engineering
 - I serve as team leader, and my main intellectual contributions are game design, mechanics design, technology prototyping, and supervising student workers
 - Global Arts + Humanities Discovery Theme (GAHDT), Arts Creation Grants Special Initiatives, College of Arts and Sciences, The Ohio State University
 - \$50,000.00 (100% to Department of Design)
- *Circle: Interactive Game*
 - Project: [‘Circle’](#)
 - April 2018, October 2018, February 2019, April 2019
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing
 - I serve as team leader, and my main intellectual contributions are game design, mechanics design, technology prototyping, and supervising student workers
 - The Innovation Studio, College of Nursing, The Ohio State University
 - \$3,500.00 in total through four funding cycles (100% to Department of Design)
- *Improving Patient Safety Using Virtual Reality (VR) to Train and Assess Emergency Personnel Responding to a Mass Casualty Incident (MCI)*
 - May 2018
 - Co-PIs: Dr. Doug Danforth, Dr. Nick Kman, Vita Berezina-Blackburn, Alan Price, **Scott Swearingen**, Alex Oliszewski, Kellen Maicher
 - My main intellectual contributions are level design, environment art and supervising student workers
 - The Agency for Healthcare Research and Quality (AHRQ)
 - \$400,000.00 (\$14,577.39 to me)
- *Multimodal Strategies for Visual Storytelling in VR*
 - April 2018
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; McArthur Freeman, Assistant Professor of Video, Animation, and Digital Arts, School of Art and Art History, College of the Arts, University of South Florida
 - My main intellectual contributions are game design, mechanics design, and technology prototyping
 - Uni Award, University of South Florida

- \$7,500.00 (100% stayed in USF and ½ paid for my travel, lodging and honorarium)
- *Collaboration for Humane Technologies*
 - Project: [‘Physical Scroller’](#)
 - May 2016
 - Co-PIs: Norah Zuniga-Shaw, Professor, Department of Dance; **Scott Swearingen**, Assistant Professor, Department of Design; Scott Denison, Assistant Professor, Department of Design, Alan Price, Associate Professor, Department of Design; Isla Hansen, Assistant Professor, Department of Art
 - I serve as team leader, and my main intellectual contributions are game design, mechanics design, and technology prototyping
 - Global Arts + Humanities Discovery Theme (GAHDT), Open Grant, College of Arts and Sciences, The Ohio State University
 - \$130,000.00 (\$2,000.00 to me)

c) Proposals for Research Funding that are Pending or were Submitted but not Funded

- *Circle Game Collaborative* (not funded)
 - April 2022
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing, Dr. Asimina Kiourti, Assistant Professor, College of Engineering
 - Global Arts + Humanities Discovery Theme (GAHDT), Arts Creation Grant, The Ohio State University
 - \$38,455.00
- *A Collaborative Digital Gaming Platform for Children with Disabilities Using Human-Centered Technology and Touch* (not funded)
 - January 2020
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing, Dr. Asimina Kiourti, Assistant Professor, College of Engineering
 - Women & Philanthropy
 - \$47,988.00
- *A Collaborative Digital Gaming Platform for Children with Disabilities Using Human-Centered Technology and Touch* (not funded)
 - February 2019
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing
 - Women & Philanthropy
 - \$57,500.00

- *A Collaborative Digital Gaming Platform for Children with Disabilities Using Human-Centered Technology and Touch* (not funded)
 - November 2018
 - Co-PIs: Kyoung Lee Swearingen, Assistant Professor, Department of Design; **Scott Swearingen**, Assistant Professor, Department of Design; Dr. Susan Thrane, Assistant Professor, College of Nursing
 - Battelle Engineering, Technology and Human Affairs (BETHA) Grant
 - \$50,826.00

d) Funded Training Grants on Which the Candidate is or has been the Equivalent of the Principal Investigator

None

e) Proposals for Training Grants that are Pending or were Submitted but not Funded

None

f) Any other Funding Received for the Candidate’s Academic work

None

6) List of Prizes and Awards for Research, Scholarly or Creative Work

- [Wall Mounted Level v.5](#)
 - IFIP-ICEC Award 2018, ‘Special Recognition Demo / Art Exhibit’, IFIP-ICEC 2018, Poznan, Poland, September 17, 2018. [juried]
- [Wall Mounted Level v.2](#)
 - Award for ‘Best in Innovation’, Montreal Independent Games Festival, Montreal, Canada, November 19-21, 2017 [juried]
 - Award for ‘Best in Social Impact’, Montreal Independent Games Festival, Montreal, Canada, November 19-21, 2017 [juried]

Teaching

1) Undergraduate, graduate, and professional courses taught

Period Offered	Course Number and Title (Credit Hours)	Enr.	% Taught	Student Eval.	Peer Eval.	Other Eval.	Instr. Method
SP 2022	ACCAD 6003 Computer Game Art and Design II (3)	3 (G)	100%	Yes	No	No	Lab
SP 2022	DESIGN 4154 Intermediate Game Design II (3)	7 (UG)	100%	Yes	No	No	Lab

SP 2022	DESIGN 4650 Collaborative Design (3)	9 (UG)	100%	Yes	No	No	Lecture/Lab
SP 2022	DESIGN 5650 Collaborative Design (3)	4 (UG)	100%	Yes	No	No	Lecture/Lab
SP 2022	DESIGN 7998 Thesis Project Development (3)	2 (G)	100%	No	No	No	Precepting/Lab
SP 2022	DESIGN 7999 Thesis Writing Development (3)	2 (G)	100%	No	No	No	Precepting/Lab
AU 2021	ACCAD 6002 Computer Game Art and Design I (3)	5 (G)	100%	Yes	No	No	Lecture/Lab
AU 2021	DESIGN 3104 Introduction to Game Design (3)	20 (UG)	100%	Yes	Yes	No	Lecture/Lab
AU 2021	DESIGN 4104 Intermediate Game Design I (3)	6 (UG)	100%	Yes	No	No	Lecture/Lab
AU 2021	DESIGN 7998 Thesis Project Development (3)	2 (G)	100%	No	No	No	Precepting/Lab
AU 2021	DESIGN 7999 Thesis Writing Development (3)	2 (G)	100%	No	No	No	Precepting/Lab
SU 2021	ACCAD 5500 Integrated Tech Lab: Interactive Animation (3)	5 (G), 3 (UG)	50% (I was responsible for teaching digital interaction)	Yes	No	No	Lecture/Lab
SP 2021	DESIGN 5153 Collaborative Design (3)	1 (UG)	100%	Yes	Yes	No	Lecture/Lab
SP 2021	DESIGN 5152 Collaborative Design (3)	3 (UG)	100%	Yes	Yes	No	Lecture/Lab
SP 2021	DESIGN 5151 Collaborative Design (3)	3 (UG)	100%	Yes	Yes	No	Lecture/Lab
SP 2021	DESIGN 4650 Collaborative Design (3)	8 (UG)	100%	Yes	Yes	No	Lecture/Lab
SP 2021	DESIGN 4154 Intermediate Game Design II (3)	4 (UG)	100%	Yes	No	No	Lab
SP 2021	ACCAD 6003 Computer Game Art and Design II (3)	5 (G)	100%	Yes	No	No	Lab
AU 2020	DESIGN 7193 Individual Studies (0.5)	2 (G)	100%	No	No	No	Precepting/Lab
AU 2020	ACCAD 6002 Computer Game Art and Design I (3)	2 (G)	100%	Yes	No	No	Lecture/Lab
AU 2020	DESIGN 4104 Intermediate Game Design I (3)	7 (UG)	100%	Yes	No	No	Lecture/Lab
AU 2020	DESIGN 3104 Introduction to Game Design (3)	17 (UG)	100%	Yes	No	No	Lecture/Lab

SU 2020	DESIGN 5193 Individual Studies (0.5)	1 (G)	100%	No	No	No	Precepting/Lab
SU 2020	DESIGN 7193 Individual Studies (0.5)	1 (G)	100%	No	No	No	Precepting/Lab
SP 2020	DESIGN 4154 Intermediate Game Design II (3)	8 (UG)	100%	Yes	No	No	Lab
SP 2020	ACCAD 6003 Computer Game Art and Design II (3)	5 (G)	100%	Yes	No	No	Lab
AU 2019	DESIGN 4104 Intermediate Game Design I (3)	4 (UG)	100%	Yes	No	No	Lecture/Lab
AU 2019	DESIGN 3104 Introduction to Game Design (3)	19 (UG)	100%	Yes	Yes	No	Lecture/Lab
AU 2019	ACCAD 6002 Computer Game Art and Design I (3)	5 (G)	100%	Yes	No	No	Lecture/Lab
SP 2019	DESIGN 7998 Thesis Project Development (0.5)	1 (G)	100%	No	No	No	Precepting/Lab
SP 2019	DESIGN 7193 Individual Studies (0.5)	1 (G)	100%	No	No	No	Precepting/Lab
SP 2019	DESIGN 4104 Intermediate Game Design I (3)	11 (UG)	100%	Yes	Yes	No	Lecture/Lab
SP 2019	ACCAD 7193 Independent Study (0.5)	1 (G)	100%	No	No	No	Precepting/Lab
SP 2019	ACCAD 6002 Computer Game Art and Design I (3)	3 (G)	100%	Yes	No	No	Lecture/Lab
AU 2018	DESIGN 3104 Introduction to Game Design (3)	19 (UG)	100%	Yes	Yes	No	Lecture/Lab
AU 2018	ACCAD 6002 Computer Game Art and Design I (3)	6 (G)	100%	Yes	No	No	Lecture/Lab
SU 2018	DESIGN 7193 Individual Studies (0.5)	2 (G)	100%	No	No	No	Precepting/Lab
SP 2018	DESIGN 7193 Individual Studies (0.5)	1 (G)	100%	No	No	No	Precepting/Lab
SP 2018	DESIGN 3104 Introduction to Game Design (3)	18 (UG)	100%	Yes	No	No	Lecture/Lab
SP 2018	DESIGN 2330 Visual Principles and Techniques III (3)	24 (UG)	100%	Yes	No	No	Lecture/Lab
AU 2017	DESIGN 7193 Individual Studies (0.5)	2 (G)	100%	No	No	No	Precepting/Lab
AU 2017	DESIGN 3104 Introduction to Game Design (3)	11 (UG)	100%	Yes	No	No	Lecture/Lab
SP 2017	DESIGN 2330 Visual Principles and Techniques III (3)	45 (UG)	100%	Yes	Yes	No	Lecture/Lab
AU 2016	ACCAD 7001 Virtual Modeling (3)	10 (G)	100%	Yes	No	No	Lecture/Lab

2) Involvement in graduate/professional exams, theses, and dissertations, and undergraduate research

a) Graduate Students: list completed and current

Category	Current	Graduated
i) doctoral students (dissertation advisor)	0	0
ii) doctoral students (dissertation committee member)	1	0
iii) doctoral students (candidacy examination committee chair)	0	0
iv) doctoral students (candidacy examination committee member)	0	0
v) master’s students plan A (thesis advisor)	1	1
vi) master’s students plan B (advisor)	1	0
vii) master’s students (thesis committee member)	2	10
viii) master’s students (examination committee member)	0	0
ix) residency candidates (who are not included above with other graduate students)	0	0
x) clinical interns (who are not included above with other graduate students)	0	0
Totals	5	11

i) doctoral students (dissertation advisor)

None

ii) doctoral students (dissertation committee member)

- **Sarah Anderson**, TBD, Health and Rehabilitation Sciences, PhD

Thesis Paper: Pending
Thesis Project: Pending

iii) doctoral students (candidacy examination committee chair)

None

iv) doctoral students (candidacy examination committee member)

None

v) master’s students plan A (thesis advisor)

- **Simone Downie**, April 2022, Design, M.F.A.

Thesis Paper: *“Once Upon a Game: Improving Motivational Factors Contributing to Aliteracy Through Arts- and Narrative-Driven, Interactive Gameplay”*
Thesis Project: *“Shadow Castle”*

- **Bruce Evans**, April 2019, Design, M.F.A.

Thesis Paper: *"The Message in the Mechanics: Designing Game Mechanics that Reflect a Character's Mental State"*

Thesis Project: *"Clear Lake"*

vi) master's students plan B (advisor)

- **Raul Perales**, TBD, Design, M.F.A.

Thesis Paper: Pending

Thesis Project: Pending

vii) master's student (thesis committee member)

- **Heran Zhou**, TBD, Design, M.F.A. (plan A)

Thesis Paper: Pending

Thesis Project: Pending

- **Jiaying Gao**, April 2022, Design, M.F.A. (plan A)

Thesis Paper: *"Prevent Childhood Drama: Using a Psychological Horror Game to Arouse Empathy"*

Thesis Project: *"Happy Lane 403"*

- **Ian Williamson**, November 2021, Department of Electrical and Computer Engineering, College of Engineering, M.S., (plan B)

Thesis Paper: *"Circle Sensor Development"*

Thesis Project: *"Circle"*

- **Sara Caudill**, July 2021, Design, M.F.A. (plan A)

Thesis Paper: *"Greater Heights: An Intern's Field Guide to Design Storytelling at NASA"*

Thesis Project: *"Greater Heights"*

- **Sruthi Ammannagari**, May 2021, Department of Computer Science Engineering, College of Engineering, M.S. (plan B)

Thesis Paper: *"The Woods: A Photon Unity Networking based Augmented Reality Game"*

Thesis Project: *"[The Woods](#)"*

- **Joseph Chambers**, August 2020, Design, M.F.A. (plan A)

Thesis Paper: *"Explorer's Walk: Designing an AR/VR Hybrid System for Visualizing Ancient Culture"*

Thesis Project: *"Explorer's Walk"*

- **Tori Campbell**, April 2020, Design, M.F.A. (plan A)

Thesis Paper: *"Designing for Expressive Character Performance in Virtual Reality"*

Thesis Project: *"The Ruby Bridges Project"*

- **Abigail Ayers**, April 2020, Design, M.F.A. (plan A)

Thesis Paper: *"The Collaborative Nature of Designing Narrative VR Applications"*

Thesis Project: *"The Ruby Bridges Project"*

- **Shasha Yu**, April 2020, Design, M.F.A. (plan A)

Thesis Paper: *"Facilitating a Creative Growth Mindset: A Creative Process that Integrates Gameplay with Maketools"*

Thesis Project: None

- **Breanne Butters**, May 2019, Design, M.F.A. (plan B)

Thesis Paper: *"Isle of Sign: Animation as Documentary"*

Thesis Project: *"Isle of Sign"*

- **Dreama Cleaver**, July 2018, Design, M.F.A. (plan A)

Thesis Paper: *"Breaking the Fourth Wall: A Study of Gender Fluidity Using Immersive Storytelling as a Medium for Evoking Empathy"*

Thesis Project: *"Breaking the Fourth Wall"*

- **Kien Hoang**, May 2018, Design, M.F.A. (plan A)

Thesis Paper: *"Space Tells, Space Expands, Space Acts: An Exploration of Computer Animation through Spatial Concepts"*

Thesis Project: *"Dear, Home"*

viii) master's student (examination committee member)

None

ix) residency candidates (who are not included above with other graduate students)

None

x) clinical interns (who are not included above with other graduate students)

None

b) Describe any noteworthy accomplishments of graduate students for whom you have been the advisor of record, for example, publications during or emanating from graduate program, awards for graduate work, prestigious post-docs or first post-graduate positions. In this section only, candidates may have duplication; if they have co-authored work with a graduate student, they can list the citation in this section and in the research section

Because faculty in the Department of Design often mentor graduate students in roles other than advisor of record, the Department encourages faculty to list student accomplishments that they influence as the advisor of record or as committee members or as first year co-mentors or as a result of independent studies.

- **Simone Downie**, Department of Design, International Journal of Play, “Investigating the Role of Gamification in Public Libraries’ Literacy-Centered Youth Programming”, Accepted for Future Publication
- **Simone Downie**, Department of Design, Hayes Research Forum 2022, “Beyond the Text: Encouraging Learners to Explore Narrative in Multimodal Ways Through Gameplay and Tactile Touch”, Placed 2nd, March 2022
- **Simone Downie**, Department of Design, IFIP-ICEC 2021, “Murder on Mansion Hill: Encouraging Collaborative Group Storytelling to Improve Motivational Aspects of Literacy Using Gameplay and Arts-Based Techniques”, https://doi.org/10.1007/978-3-030-89394-1_4, October 2021
- **Simone Downie**, Department of Design, IFIP-ICEC 2021, “Designing an Arts-Based, Collaborative Mystery Game to Improve Players’ Motivation and Confidence as Storytellers”, https://doi.org/10.1007/978-3-030-89394-1_47, October 2021
- **Balaji Dontha**, Electrical and Computer Engineering, Listed as Co-Inventor on Patent Title: “Systems for Collaborative Interaction Using Wearable Technology”, U. S. Patent and Trademark Office (USPTO), Reference: 10336-518PV1, February 2022
- **Balaji Dontha**, Electrical and Computer Engineering, Listed as Co-Author, MDPI Sensors, Volume 22, Issue 1, “Wearable Sensors Based on Force-Sensitive Resistors for Touch-Based Collaborative Digital Gaming”, <https://www.mdpi.com/1424-8220/22/1/342>, January 2022
- **Ian Williamson**, Electrical and Computer Engineering, Listed as Co-Inventor on Patent Title: “Systems for Collaborative Interaction Using Wearable Technology”, U. S. Patent and Trademark Office (USPTO), Reference: 10336-518PV1, February 2022
- **Ian Williamson**, Electrical and Computer Engineering, IDEA Workshop, College of Nursing abstract submission, “Project Circle”, October 2021 (cancelled due to Covid-19)

- **Ian Williamson**, Electrical and Computer Engineering, Design Engineering Intern, Garmin, Summer 2021
- **Sruthi Ammannagari**, Computer Science and Engineering, Co-Authored "*The Woods: A Mixed-Reality Cooperative Game*", 2022 Games+Learning+Society (GLS) Conference, A Well-Played presentation, June, 2022
- **Sruthi Ammannagari**, Computer Science and Engineering, IFIP-ICEC 2021, Co-Author, "*The Woods: AR Game*", October 2021
- **Sruthi Ammannagari**, Computer Science and Engineering, SIGGRAPH 2021, Co-Author, "*The Woods: A Mixed Reality Two-Player Cooperative Game*", August 2021
- **Sara Caudill**, Design, Intern, NASA Armstrong Flight Research Center, Summer-Autumn 2020
- **Sara Caudill**, Design, Production Internship, FOX TV, Winter 2018
- **Joseph Chambers**, Design, XR Space Lab Intern, NASA Marshall Space Flight Center, Autumn 2019
- **Tori Campbell**, Design, Motion Capture Intern, Activision, Summer 2019
- **Kien Hoang**, Design, Prop Intern, Blizzard Entertainment, Summer 2017

c) Undergraduate Research Mentoring

- **Alice Jiang**, Art, Thesis, "TBD"
- **Jordan Marschhausen**, College of Nursing, Thesis, "*Creating Bonding Experiences Between Children and Their Parents Through Cooperative Touch Gameplay*", May 2022
- **Emma Matthews**, College of Nursing, Thesis, "*Creating Bonding Experiences Between Children and Their Parents Through Cooperative Touch Gameplay*", May 2022

d) Describe any noteworthy accomplishments of undergraduate students, in particular related to research, for whom you have been the advisor of record (publications, posters, honors or student awards).

- **Matthew Hall**, Department of Computer Science and Engineering, Co-Authored "*The Woods: A Mixed-Reality Cooperative Game*", 2022 Games+Learning+Society (GLS) Conference, A Well-Played presentation, June 15-17, 2022
- **Matthew Hall**, Department of Computer Science and Engineering, Participated in my research project "[The Woods](#)" and Co-Authored "*The Woods: AR Game*", IFIP-ICEC 2021

- **Matthew Hall**, Department of Computer Science and Engineering, Participated in my research project "[The Woods](#)" and Co-Authored, "*The Woods: A Mixed Reality Two-Player Cooperative Game*", SIGGRAPH 2021
- **Blaine Hafen**, Design, Denman Undergraduate Research Forum, "*Forging Emotional Bonds in Families with Cognitive or Physical Limitations Through Collaborative Physical Gameplay Interactions and Controller Design*", Placed 2nde, March 8, 2022
- **Jordan Marschhausen**, College of Nursing, Denman Undergraduate Research Forum, "*Creating Bonding Experiences Between Children and Their Parents Through Cooperative Touch Gameplay*", March 8, 2022
- **Kelsey Edwards**, Electrical Engineering and Pre-Law, Consortium of Summer Research Experiences Symposium, '*Circle Research*', July 2021
- **Blaine Hafen**, Design, **Emma Matthews**, College of Nursing, IDEA Workshop, College of Nursing abstract submission, "*Project Circle*", October 2021 (cancelled due to Covid-19)
- **Lauren Hoffman**, Design, Thesis, "*Join*", Spring 2020
- **Harrison Moshier**, Design, Thesis, "*Omni Controller*", Spring 2019
- **Jack McClain**, Design, Thesis, "*Ludocracy*", Spring 2019
- **Skylar Wurster**, Computer Science and Engineering, Participated in my research project "[The Woods](#)" and listed as a collaborator on the Global Arts + Humanities Special Grants in Arts Creation, proposal awarded for \$50,000, March 2019
- **Rohin Dasari**, Biomedical Engineering, Listed as a collaborator for the project "*Circle*", while seeking funding from The Innovation Studio (OSU College of Nursing), seed funding awarded for \$1,000, February 2019
- **Riley Patrick**, Art, Thesis, "*NOOO!!!*", Spring 2018
- **Brenden Hill**, Academy, **Chance Lytle**, Science and Engineering/History/Law, **Kim Wu**, Communications, Student project titled "*Making Friends*" exhibited at the Multiple Alternative Realities Convention in Columbus, Ohio, 2018
- **Joel Cesar**, Physics, **James Harmon**, Undergraduate Non-Degree, **Chelsea Liston**, Communications, Student project titled "*Adventurer's Bazaar*" (orig. "*Trade & Trades*") published by: Laboratory H, with a release date set for 2020.

3) Involvement with Postdoctoral Scholars and Researchers

- **Vigyanshu Mishra**, Postdoctoral scholar, Electrical Computer Engineering. Dr. Mishra presented his research on wearable motion capture sensors to my undergraduate class (DSN 4650) where they were tasked with designing games for social good. These games were designed with the intent to serve populations recovering from age-related

diseases and illnesses who are benefitting from physical therapy. February 2022

- **Fede Camara-Halac**, Postdoctoral scholar, School of Music. In Autumn 2019, Dr. Camara-Halac joined my funded research project, '[The Woods](#)', as an audio specialist to create an immersive sonic experience. I supervised his contributions to this project along with Prof. Kyoung Lee Swearingen and Dr. Marc Ainger through regular meetings and evaluation of his work.
 - Co-Authored "*The Woods: A Mixed-Reality Cooperative Game*", 2022 Games+Learning+Society (GLS) Conference, A Well-Played presentation, June 15-17, 2022
 - Co-Authored "*The Woods: AR Game*", IFIP-ICEC 2021
 - Co-Authored, "*The Woods*": A Mixed Reality Two-Player Cooperative Game, SIGGRAPH 2021

4) Extension and Continuing Education Instruction

- **Scott Swearingen**, Playtest, "*ACCAD Playtest Day*", April 1, 2022
 - Organized a public playtest of student projects from DSN4154/ACCAD6003 and various other faculty research and student thesis projects to gain feedback on their works-in-progress
- **Scott Swearingen**, Exhibition, "*Game Design Showcase*", December 14, 2021
 - Coordinated and curated a public exhibition of my DSN 3104 final game projects in the Collaboratory of Sullivant Hall, The Ohio State University
- **Scott Swearingen**, Workshop, "*'Pandemic' and the Elements of Game Design*", November 3, 2021
 - Gave presentation to the OSU Game Creation Club, followed by a workshop where students applied topics covered to games of their own choice and present their findings to the group
- **Scott Swearingen**, Playtest, "*Beta Day*", April 20, 2021
 - Organized a public playtest of student projects from DSN4154/ACCAD6003 to gain feedback on their works-in-progress
- **Scott Swearingen**, Presentation, "*Accessibility in Gaming*", April 13, 2021
 - Organized a presentation by Activision Central Tech open to students, faculty, and staff from ACCAD on designing accessibility for games

- **Scott Swearingen**, Presentation, “Design Principles for Creating Video Games”, April 8, 2021
 - Gave a talk to Ohio State’s Art & Tech Club on design principles for creating video games
- Kyoung Lee Swearingen and **Scott Swearingen**, Presentation, “*Game Design for Webinar Performance*”, March 2, 2021
 - I was invited to give a talk to faculty and students from Iowa State University’s Digital Media Performance Group, “*Media Clown*” on designing analog games for digital platforms.
- **Scott Swearingen**, Presentation, “*More Video Games, Less Screen Time!*”, March 13, 2021
 - I gave a TEDx talk at The Ohio State University describing my various research projects in digital/analog games
- **Scott Swearingen**, Exhibition, “Tabletop Gaming Bonanza”, December 9, 2020
 - Coordinated and curated a public exhibition of my DSN 3104 final game projects online via Zoom
- Kyoung Lee Swearingen and **Scott Swearingen**, Asimina Kiourti, Susan Thrane, Presentation, “Circle”, November 20, 2020
 - Presented “*Circle*” to Project Narrative, The Ohio State University
- Kyoung Lee Swearingen and **Scott Swearingen**, Webinar, October 19, 2020
 - Presentation at ‘Making Lemonade’, Urban Arts Space, The Ohio State University
- **Scott Swearingen**, UCSC Games Showcase, June 25, 2020
 - Judged and reviewed 4 games that students made at the Digital Arts Research Center, University of California, Santa Cruz, Santa Cruz, CA
- **Scott Swearingen**, Playtest, “*Beta Day*”, April 17, 2020
 - Organized a public playtest of student projects from DSN4154/ACCAD6003 to gain feedback on their works-in-progress
- **Scott Swearingen**, Presentation, “*Making Video Games*”, April 4, 2020
 - Gave a talk to Ohio State’s Game Creation Club on the design process for making video games from an industry perspective

- **Scott Swearingen**, Playtest, *“ACCAD Playtest Day”*, February 2020
 - Organized a public playtest of student projects from DSN4154/ACCAD6003 and various other faculty research and student thesis projects to gain feedback on their works-in-progress
- **Scott Swearingen**, Workshop, *“Game Design Workshop”*, January 2020
 - Lead a four-hour game design workshop for Metro Middle School students during their ‘J-Term’ in Columbus, Ohio
- **Scott Swearingen**, Exhibition, *“Analog Games Showcase”*, December 12, 2019
 - Coordinated and curated a public exhibition of my DSN 3104 final game projects at The Soldiery, Columbus, Ohio
- **Scott Swearingen**, Workshop, *“Game Design Workshop”*, October 2019
 - Lead a two-hour game design workshop for Wickliffe Progressive School elementary school students in Upper Arlington, Ohio
- Kyoung Lee Swearingen and **Scott Swearingen**, Presentation, *“Collaborative Games and Storytelling through Humane Technology”*, May 30, 2019
 - Gave a talk to students from the University of California, Santa Cruz, Santa Cruz, CA
- **Scott Swearingen**, Critique, *“Digital Sculpting and Advanced Animation”*, February 18, 2019
 - Participated in a 3-hour long critique given to students at the University of South Florida, School of Art and Art History, Tampa, FL.
- Kyoung Lee Swearingen and **Scott Swearingen**, Presentation, *“From Industry to Academia: Collaborative Games and Storytelling through Humane Technology”*, February 18, 2019
 - Gave a talk to students and faculty from the University of South Florida, School of Art and Art History, Tampa, FL.
- **Scott Swearingen**, Exhibition, *“Analog Games Showcase”*, December 10, 2018
 - Coordinated and curated a public exhibition of my DSN 3104 final game projects at The Soldiery, Columbus, Ohio
- **Scott Swearingen**, Presentation, Skype lecture on the video game design process, given to an “Introduction to Game Design” class at Bradley University, October 2018
- **Scott Swearingen**, Exhibition, *“Analog Games Showcase”*, April 24, 2018

- Coordinated and curated a public exhibition of my DSN 3104 final game projects in Hayes Hall lobby, The Ohio State University
- **Scott Swearingen**, Exhibition, “*Analog Games Showcase*”, April 11, 2018
 - Coordinated and curated a public exhibition of my DSN 2330 final game projects in Hayes Hall lobby, The Ohio State University
- **Scott Swearingen**, Exhibition, “*Analog Games Showcase*”, December 7, 2017
 - Coordinated and curated a public exhibition of my DSN 3104 final game projects in Hayes Hall lobby, The Ohio State University
- **Scott Swearingen**, Exhibition, “*Analog Games Showcase*”, April 7, 2017
 - Coordinated and curated a public exhibition of my DSN 2330 final game projects in Hayes Hall lobby, The Ohio State University
- **Scott Swearingen** and Kyoung Lee Swearingen, Workshop, “*Creating Virtual Environments with 3D Printing and Photogrammetry*”, Co-organized this workshop (50% effort) for SIGGRAPH ASIA 2016, Macau, China
 - Our 120-minute workshop had four presenters – Asst. Professor Kyoung Lee Swearingen, Asst. Professor Scott Swearingen, Asst. Professor McArthur Freeman (University of South Florida), and Creative Technologist Rosalie Yu (Columbia University). My presentation topic was “Designing Virtual Environments with 3D-Printing and Photogrammetry – part 1”
- **Scott Swearingen**, Workshop, “Level Design and Worldbuilding Workshop”, November 2016.
 - Gave a workshop on game development to students at Dakota State University via Skype.

5) Curriculum Development

New Courses / Sections

- **DSN 4650 Collaborative Studio**

As a Co-Inventor on the patent “Systems for Collaborative Interaction Using Wearable Sensors”, I introduced it to my classroom of undergraduate Design students enrolled in DSN 4650. This patent is for a collaborative digital gaming platform that normalizes the experience of play through touch-based interactions and is intended to be used between the moderate-to-severely cognitively and/or physically disabled and their caregivers. It has subsequently inspired new coursework that connects undergraduate Design students designing for social good to PhD- and Masters-level research in Electrical Engineering

- **Games & eSports Interdisciplinary Major**

As Co-Director of the Curricular Development team, I helped drive the course objectives and student outcomes of all three tracks of this interdisciplinary major, with a particular emphasis on the 'Making It' track which focuses on the design and creation of digital games content and experiences.

- **Game Studies Interdisciplinary Minor**

Helped to create a three-course 'Game Design' sequence (DSN 3104/4104/4154) offered by the Department of Design that services this minor.

Revised Courses / Sections

- **DSN 3104, Game Design I**

As the one required class offered by the Dept. of Design towards the Game Studies Interdisciplinary Minor, I developed DSN 3104 to be appropriate for all students pursuing this minor regardless of their major discipline and background.

- **DSN 4104, Game Design II**

Designed to take analog concepts from DSN 3104 (e.g. tabletop gaming) and translate them into digital ones using time-based interactive media. Students identify and analyze how these concepts, when applied to new modes of interaction, provoke new questions about interaction and user experience design.

- **DSN 4154, Game Design III**

Expands upon the projects students created in DSN 4104 and provides them with the opportunity to work in teams. As the third course in the sequence, it also follows an industry-standard game production process.

- **DSN 2330, Visual Principles and Techniques III**

Redesigned course to include projects that focus on time-based and interactive media.

- **ACCAD 7001, Virtual Modeling**

Augmented syllabus with instruction on current approaches to digital capturing techniques based upon research and professional activities prior to joining The Ohio State University.

6) Brief Description of your approach to and goals in teaching, major accomplishments, plans for the future in teaching

My primary teaching goals are (1) to encourage students to engage in more risk-taking, (2) recognize deficiencies in their designs early, and (3) become confident in retooling their work.

All these goals are intended to promote a healthier classroom by reducing stress levels while providing a pathway for creating work that is more refined and complete. The mechanism that I use to achieve these goals is a process known as 'scoping'. In the project-based classes that I teach, students evaluate the current state of a given project against its defined objectives and the target deadline. After analyzing where the project is failing to meet these objectives, the students are required to discover opportunities where they can reduce the overall footprint of their projects without compromising its original goals and intent. The students continue to refine their projects based on the reduced footprint, in preparation for the next evaluation. Typically, the scoping process occurs weekly. As such, students gain insight into what is not working multiple times on a single project and learn to embrace these shortcomings as part of the creative process while reducing their workload at the same time.

During in-class evaluations and critiques, students share their unfinished games-in-progress multiple times and have others play them to gain early feedback. This is an inherently risky process for students. After students become acclimated to soliciting feedback on unfinished work as the class progresses, the confidence they gain and their ability to synthesize criticism enables them to take greater risks in future projects as the semester unfolds. A major accomplishment of my classroom is the dissemination of student work. Over the past several years, I have organized and curated multiple student-showcases of my 'Game Design I' projects at The Soldiery, a local retail store that hosts a variety of table-top gaming clubs and tournaments. In addition, student work from my 'Game Design II' and 'Game Design III' classes is often beta-tested by an objective public audience. In all three of these courses, students put their work on display in front of a savvy and interested community of game developers, industry veterans and a curious public eye.

As my research has matured, the connection between it and my classroom has only become stronger. Most recently, I have brought the constraints of my research project 'Circle' and the small design footprint that those games require to a classroom of undergraduate designers. While these students have little background in game design, their design thinking and research skills have produced a variety of outcomes that have yielded new trajectories of creative inquiry that will be folded back into the research where their line of thinking originated. Now that I have a proven framework, my goal is to continue this pattern of research-informing-teaching-informing-research in my current and future work.

7) Evaluation of Teaching

While my overall instructor rating generally surpasses the College of Arts and Sciences mean, teaching technology-based courses often yields a moving target that can be difficult to keep up with. In other words, as software in the classroom is updated, the instruction must follow. In the Spring of 2019, several of my lower scores reflected this disparity.

In my mind, the challenges faced by students was a result of my teaching materials not being well-aligned enough with the current technology I was using in the classroom. I tackled this in a couple of ways. First, without reducing the topics covered in DSN 4104 (which was important to ensure proper scaffolding with the next course in the sequence), I designed more, smaller assignments so that my teaching materials and student deliverables had more manageable footprints. I also began using specific versions of software that had Long Term Support (LTS) which meant new features wouldn't be added with each new release. This meant I was not

creating new classroom materials every time I taught the class. Although students might not have the absolute latest software in DSN 4104, these more advanced features would not have been explored until later classes in the sequence anyway. Students also gain the added benefit of software stability by using the LTS versions which is the intent of the developers releasing them. As a result, student work from the Autumn 2019 offering was more focused and refined, and the overall quality of their final projects was much higher.

In my game design classes, I also teach my students to do some moderately-complex programming which was out of scope for several of them who had no background in technology or coding. As a note, my students are not part of any specific cohort and come from different departments and colleges across campus (e.g., Art, Engineering, Business, East Asian Studies, etc.) which makes designing technology-based classes especially difficult. In response, I requested programming support from ACCAD to help develop a small library of scripts that could be used in the classroom. Students who were not comfortable programming used them as they were written to great success. While students who were confident in their programming abilities retooled them to their liking. This went a long way to normalizing the classroom experience for all students regardless of their backgrounds. My SEI's in Autumn 2021 reflect this change as they expressed how well the class material was made appropriate for a variety of students from departments across campus.

8) Awards and Formal Recognition for Teaching

None

9) Other Academic Advising

In the Department of Design, faculty serve on a two-person mentoring team to first year graduate students as a form of advising.

- **Ugonna Obiagwu**, Advising student pursuing PSP in Video Game Design and Animation, 2022-present
- **Natasha Phillips**, Advising student pursuing PSP in Video Game Design, 2021-present
- **Alex Ronnenbaum**, Advising student pursuing PSP in Video Game Design, 2021-present
- **Jeff Bonner**, Advising student pursuing PSP in Video Game Design, 2021-present
- **Willie Glover**, first year co-mentor, 2021-present
- **Mila Gajic**, first year co-mentor, 2021-present
- **Kelsey Edwards**, Helped advise STEP Project for Electrical Engineering and Pre-Law student, 2021
- **Hsi-Yuan Chu**, first year co-mentor, 2020-2021

- **Simone Downie**, first year co-mentor, 2019-2020
- **Raul Perales**, first year co-mentor, 2019-2020
- **Heran Zhou**, first year co-mentor, 2019-2020
- **Megan Schneider**, first year co-mentor, 2019-2020
- **Sara Caudill**, first year co-mentor, 2018-2019
- **Joseph Chambers**, first year co-mentor, 2017-2018

10) Teaching Professional Development

- The Drake Institute for Teaching and Learning, Documenting your Teaching Workshop, January 13, 2021.
- The Drake Institute for Teaching and Learning, Teaching Support Program, Parts 1 and 2, May 15, 2020.
- Office of Research, BETHA Pre-Proposal Workshop, October 29, 2020.

Service

1) List of Editorships or Service as an Editorial Reviewer or Board Member for Journals, University Presses, or Other Learned Publications

- *International Game Developers Association*, Member of the IGDA special interest group on Game Accessibility (GASIG), 2020-present
- *College Art Association of America*, Represent, promote, and advocate for the visual arts nationally and internationally through conference attendance, 2020-present
- *Symposium on Education Committee Member*, SIGGRAPH-ASIA 2017
- *Symposium on Education Editorial Reviewer*, SIGGRAPH-ASIA 2016
 - 'Effectiveness of Game Jam-based Iterative Program for Game Production in Japan', *Computers and Graphics*, Vol. 61, December 2016, pages 1-10, <https://doi.org/10.1016/j.cag.2016.07.006>

2) List of Offices Held and Other Service to Professional Societies. List of Organization in Which Office was Held or Service Performed. Describe Nature of Organization (Open or Elected Membership, Honorary)

None

3) List of Consultation Activity

None

4) Clinical Services State Specific Clinical Assignments

None

5) Other Professional/Public Community Service directly related to the Candidate's Professional Expertise, if not Listed Elsewhere

- HCI International 2021, Invited to chair the "*Game Experience Design*" session and moderate a discussion of a group of international presenters, July 29, 2021.
- Interviews Given
 - "*Global Arts and Humanities Discovery Themes*" covering topics ranging from cross-disciplinary methodologies to the ethics of game design, and the role human connectivity plays in their evaluation, March 3, 2022
 - "*Voices of Excellence from Arts and Sciences*" interview titled "*It's More Than Gunning Down Zombies*" where I discussed how games can help to define culture and the value of face-to-face interactions during play
- Interviews Organized
 - Helped facilitate in-person interview with CTO from Plaid Hat Games (Joseph Ellis) for Design 3104 "Introduction to Game Design" course, March 10, 2022
 - Helped facilitate Zoom interview with Lead Game Designer from Facade Games (Travis Hancock) for Design 3104 "Introduction to Game Design" course, March 3, 2022
- Workshops and Artist Talks Organized
 - Coordinated guest lecture and studio visit by Activision Central Tech. Open to students and followed by portfolio reviews, October 24, 2019
 - Coordinated guest lecture and studio visit by Activision Central Tech. Open to students and followed by portfolio reviews. Yielded student internship (Tori Campbell) for Summer 2019, October 24, 2018
 - Coordinated workshop and guest lecture "*Alternative Capturing Techniques for Creative Expression*" by visiting artist Rosalie Yu from the Brown Institute for Media Innovation at the Columbia Graduate School of Journalism, December 13, 2018

- Coordinated workshop and guest lecture “*Photogrammetry for Artists*” by visiting artist Rosalie Yu from the Brown Institute for Media Innovation at the Columbia Graduate School of Journalism, February 16, 2017
- Judged and reviewed 15+ games at the “*UCSC Games Showcase*” that students made at the Digital Arts Research Center, University of California, Santa Cruz, Santa Cruz, CA
- Medical and Health Humanities and Arts Working group member, 2019
- Game Developers Expo (GDEX), Served as liaison for the Department of Design and the Advanced Computing Center for the Arts and Design. Coordinated and curated exhibition of graduate student work at GDEX, Columbus, Ohio, September 28-30, 2018
- Game Developers Expo (GDEX), Served as liaison for the Department of Design and the Advanced Computing Center for the Arts and Design. Coordinated and curated exhibition of graduate student work at GDEX, Columbus, Ohio, September 28-30, 2016
- Unity 3D Workshop, Coordinated a Unity3D workshop held at The Advanced Computing Center for the Arts and Design, given by Jesse Smith, October 18, 2016

6) Administrative Service

a) Unit Committees

- Special Events Committee, Autumn 2019-present
- ACCAD Advisory Committee, Autumn 2017 – present
- Graduating Student Exhibition Committee, Autumn 2019 – Spring 2020
- Design Technology / Facility Committee, Autumn 2019 – Spring 2020
- New Curriculum Development Committee, Autumn 2018-Spring 2020
- Design 50, Ad Hoc Committee, Autumn 2017 – Spring 2018
- Graduating Student Exhibition Committee Autumn 2017 – Spring 2018

b) College or University Committees

- As Co-Director of the Curricular Development team, I helped drive the course objectives and student outcomes of all three tracks of the **Games & eSports Interdisciplinary Major**, with a particular emphasis on the ‘Making It’ track which focuses on the design and creation of digital games content and experiences., Autumn 2018 – Spring 2019

c) Initiatives Undertaken to Enhance Diversity in your Unit, College or the University

None

d) Administrative Positions Held, e.g. Graduate Studies Chair

None

e) Service as a Graduate Faculty Representative on a Dissertation in another Unit or University

None

7) Advisor to Student Groups and Organizations

- Board to Death, Spring 2022-present
 - Serve as a connection between student group and the university, and review and approve its goals and registration each year. Student club focuses on analog game design
- Game Creation Club, Spring 2020-present
 - Serve as a connection between student group and the university, and review and approve its goals and registration each year. Student club focuses on digital game design

8) Office of Student Life Committees

a) List Office of Student Life Committees on which You have served

None

b) Summarize participation in Student Life programs such as fireside discussions, lectures to student groups outside of our unit, addresses or participation at student orientation

None

9) List of prizes and awards for service to your profession, the university, or your unit

None

10) Brief elaboration that provides additional information about service activities listed above

Through my membership with the International Game Developers Association Special Interest Group on Gaming Accessibility (IGDA-GASIG), I seek to gain insight into current pedagogical developments at an international scale as they relate to teaching games and inclusive design. Not only are the workshops and talks that I organize a direct result of that insight, but also my collaborations with students and faculty and my evolving research interests. Rosalie Yu's workshops and the more recent presentation on 'Accessibility in Gaming' by Activision (all of which I organized) was of immense value in terms of its influence on student research and classroom activities. In addition, the Game Design Showcases that I curate continue to increase the breadth of exposure our department and university has in designing for social good.