Matthew J. Sharritt

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Education:

University Of Hawai'i at Mānoa (2008)

Ph.D., Communication and Information Sciences (interdisciplinary doctoral program consisting of Communication, Computer Science, Information Technology Management, and Information Science curricula)

- <u>Dissertation Title: Students' Use of Social and Cognitive Affordances in Video Game</u> <u>Play within Educational Contexts: Implications for Learning</u>
- Doctoral research findings include inductive generalizations that describe patterns of use of the interface (affordances) and collaboration by high school students that lead to instances of learning while playing commercial video games
- Perspective incorporates theory and literature from gaming, the Serious Games
 Initiative, human-computer interaction (HCI), computer-supported collaborative
 learning (CSCL), communication, learning and cognition, psychology, and sociology
- Qualitative method inspired by ethnomethodology, grounded theory, & activity theory

University Of Hawai'i at Mānoa (2003)

M.S., Information and Computer Sciences

- Master's Project: Individually developed a video game on the Sony PlayStation platform
- Foci: Human-computer interaction (HCI), game design / development, information architecture, information science, medical informatics, and educational technology

Marquette University (2001)

B.S., Computer Engineering (Minors: Computer Science & Math)

• Senior Design Project: Cross-Functional Data Lab, controlling robotics over the Internet

Research Interests:

Maximizing flow and the self-efficacy of the user experience through the design of cutting-edge video games that are capable of engaging current and future generations on a level of which they are capable.

Current research describes how students collaboratively make use of video games for learning by taking an open-ended look at what is accomplished while playing games. Focus is on key game design features that manifest in collaborative human interaction and engaging game play. I would like to further uncover how learning occurs during video game play, and aim to start research projects that can help uncover and test many of the research topics that follow.

Other research interests include:

- Intersection of technology and learning, such as curriculum and classroom integration issues associated with new technology and teaching methods
- Collaborative, cooperative, and competitive forms of interaction and communication, and their associated pedagogy and learning outcomes
- Computer-supported intercultural communication and related interface and usability issues
- Maximizing support for human communication channels in games to communicate and collaborate more efficiently, and utilizing affective measures to model human emotion in computer avatars (virtual identities) to evoke emotional responses on behalf of game players
- User-centered design of computer software applications to maximize human communication and efficiency through the use of representations that afford culturallyspecific meaning and use, to raise participatory interaction and learning within communities of practice
- Design of video games to promote problem-based exploration, engagement, collaboration, flow, emotional attachment and motivation to play; with related aspects such as well designed game user interfaces, gripping narratives, and the support of motivated activity by way of available, logical action

Research Skills:

- Extensive multidisciplinary knowledge of both qualitative and quantitative research methods
- Current research makes use of Ethnomethodology, grounded theory, and Activity
 Theory for an open-ended approach to game player advancement and learning during
 video game play

Teaching Experience:

Teaching Assistant (2001–2007)

Department of Information & Computer Sciences, University of Hawai'i at Mānoa

- Taught Introduction to Computer Science I (Object-Oriented Programming),
 Introduction to Computer Science II (Algorithms and Data Structures)
- Conducted teaching lab sessions and assisted students with Java programming (applications and applets), UNIX / SSH, and web pages (HTML)
- Personally addressed the low retention and early dropout rate of beginner Computer Science students by actively discussing pedagogy with professors to create the ideal learning experience
- Created projects of appropriate topic and difficulty to create a scaffolding assignment structure, which encouraged students to more frequently use and develop their programming skills, thereby avoiding panic before major project due dates and exams
- Created physical and online course content (WebCT / course websites); wrote, proctored, and graded exams, quizzes, and tests; acted as substitute lecturer during professors' absences
- Managed up to 90 students per semester; corrected approximately 120 assignments per week
- Communicated timely, detailed, and constructive feedback on submitted work via email with additional explanation and feedback given face-to-face
- Installed professional digital video mixing equipment to create online video lectures

Business Experience:

President (2008–Present)

Situated Research (www.situatedresearch.com) provides usability / user-experience research services to video game and software companies, Naperville, IL

- Offer usability research and testing for software, products, websites, and video games
- Cutting-edge research completed during doctorate has inspired an innovative, multidisciplinary approach to video game usability research, showing relationships among the user-experience (game play) and engagement (motivation to play)
- User-experience (UX) research raises productivity and efficiency for business software
- Offer services that improve user interaction, collaboration, and engagement within human-computer interfaces to simplify and enhance the user experience

President (2013–Present)

CueCamp (www.cuecamp.com) provides creative web design and social media marketing services, Naperville, IL

- Offer custom web design, collateral creation, and custom web / software applications
- Social media marketing / social networking services
- Developed a proprietary social media marketing management platform to maximize social media marketing ROI and client engagement
- Design and develop creative marketing materials that focus on high usability and customer conversion rates; and search engine optimization (SEO)
- Purchase domain names, set up web servers, and design websites using a variety of web
 technologies, including Adobe Photoshop, Illustrator, and Dreamweaver; CMS
 platforms (e.g., WordPress, Joomla, Drupal); utilizing the most appropriate web
 frameworks (including PHP, SQL, JavaScript, AJAX, HTML, CSS)

Contractor (2002-2008)

Contract web development and computer / networking projects for small-businesses, Honolulu, HI & Naperville, IL

• Create and remotely update websites for small businesses and organizations

Purchase domain names, set up web servers, and design websites in Adobe Photoshop,
 Acrobat, Illustrator, Dreamweaver, and Flash (examples at www.situatedgaming.com)

Webmaster (2000-2001)

Corporate Communications Group, Time Warner Telecom, Inc. (www.twtelecom.com), Brookfield, WI

- Functioned as full time corporate Webmaster while carrying a full-time class load
- Worked directly with senior level public relations executives and vice-presidents to add time-critical news and financial releases
- Created a Flash-based mini CD of critical PR / Marketing material (formerly hard copies; reduced cost from \$15.00 to \$1.50 per copy) and presented to corporate executives
- Installed new Cobalt web servers and modified IP backbone diagrams
- Developed in Interwoven, a content management system, to design and manage website

Call Processing Engineer (1999)

Cellular Infrastructure Group (part of GSM, a SEI Level 5 organization), Motorola, Inc., Arlington Heights, IL

- Converted outdated call processing state chart diagrams into TAU, a UNIX state chart tool
- New diagrams were programmed into current GSM customer releases (Perl and C / C++)

Computer Skills and Qualifications:

Broad knowledge of advanced methodologies: computer hardware design; programming languages; human-computer interaction (HCI) and human interface design; information and communication technologies (ICTs); education and pedagogy

- Designed and created several browser-based games as Java applets (examples online at www.situatedgaming.com) and several console games on the Sony PlayStation
- Experience managing teams of programmers; familiar with giving deadlines and constructive feedback; frequently performed code reviews and walkthroughs

- Managed teams and drove projects from concept to completion; kept under budget
- Expertise in user interface and user experience design; interaction design; information architecture; intercultural communication; communication theory
- Expertise in storyboarding; scenario writing; essential use cases; participatory design
- Expertise in game design and evaluation and implications for learning and instruction;
 curriculum integration and pedagogy; collaboration, competition, and motivation
- Proficient in Java, C/C++, PHP, SQL, Perl, JavaScript, HTML and CSS; Mac OS and Windows server management (IIS), networking, and troubleshooting
- Advanced knowledge of latest computer hardware components and gaming platforms (Mobile, PC, Wii, Xbox, PlayStation)

Presentations:

- Sharritt, M. J. (2008). Video game representations as cues for collaboration and learning. Paper presented at the *Meaningful Play 2008 Conference* at Michigan State University, East Lansing, October 9–11, 2008. (Received Top Paper Award; later published in a special issue of the *International Journal of Gaming and Computer-Mediated Simulations.*)
- Sharritt, M.A., & Sharritt, M.J. (2010). A mixed method approach to studying collaborative video game play. Presented at the *Games + Learning + Society Conference (GLS 6.0)*, June 9–11, 2010, Madison.
- Sharritt, M.A., & Sharritt, M.J. (2010). User-experience game research? Presented at the *Games + Learning + Society Conference (GLS 6.0)*, June 9–11, 2010, Madison.
- Sharritt, M.J., Sharritt, M.A., & Suthers, D.D. (2010). Analyzing Collaborative Learning in Game-Based Scenarios. Presented at the *Annual Meeting of the Society for Text & Discourse (ST&D 2010)*, August 16–18, 2010, Chicago.

Conferences Attended:

- Games + Learning + Society (GLS), Madison, WI
- Meaningful Play, East Lansing, MI

• Electronic Entertainment Expo, Los Angeles, CA

Publications:

- Sharritt, M. J. (2008). Forms of learning in collaborative video game play. *Research and Practice in Technology Enhanced Learning*, 3(2), pp. 97–138.
- Sharritt, M. J. (2008). Students' Use of Social and Cognitive Affordances in Video Game Play within Educational Contexts: Implications for Learning. (*Doctoral Dissertation*, 1055 pages)
- Sharritt, M. J. (2008). Video game representations as cues for collaboration and learning. Proceedings of the *Meaningful Play 2008 Conference*, October 9–11, 2008, East Lansing, MI. (Top Paper Award later published in a special issue of the *International Journal of Gaming and Computer-Mediated Simulations*.)
- Sharritt, M. J. & Suthers, D.D. (2009). Video game representations as cues for collaboration and learning. *International Journal of Gaming and Computer-Mediated Simulations*, 1(3), pp. 28–52.
- Sharritt, M.A., & Sharritt, M.J. (2010). A mixed method approach to studying collaborative video game play. Proceedings of the *Games + Learning + Society Conference (GLS 6.0)*, June 9–11, 2010, Madison.
- Sharritt, M.A., & Sharritt, M.J. (2010). User-experience game research? Proceedings of the *Games* + *Learning* + *Society Conference* (*GLS 6.0*), June 9–11, 2010, Madison.
- Sharritt, M. J. (2010). An Open-Ended, Emergent Approach for Studying Serious Games. In L. Annetta & S. Bronack (Eds.) *Serious Educational Game Assessment* (pp. 243–261). Rotterdam: Sense Publishers.
- Sharritt, M. J. (2010). Designing game affordances to promote learning and engagement. *Cognitive Technology Journal*, 14(2)–15(1), pp. 43–57. (Special Issue on Games for Good: Video Games as Cognitive Technologies).

- Sharritt, M. J. (2010). Evaluating Video Game Design and Interactivity. In R. Van Eck (Ed.) *Interdisciplinary Models and Tools for Serious Games: Emerging Concepts and Future Directions* (pp. 177–205). Hershey, PA: IGI Global.
- Sharritt, M.J., Sharritt, M.A., & Suthers, D.D. (2010). Analyzing Collaborative Learning in Game-Based Scenarios. Proceedings of the *Annual Meeting of the Society for Text & Discourse (ST&D 2010)*, August 16–18, 2010, Chicago.
- Sharritt, M. J. (2011). Designing game representations: How game interfaces constrain and promote collaborative play. *Journal of Gaming and Virtual Worlds*, 3(2), pp. 145–157.
- Sharritt, M. J., Aune, R. K., & Suthers, D.D. (2011). Gamer Talk: Becoming Impenetrably Efficient. In M. Cruz-Cunha, V. Carvalho & P. Tavares (Eds.) *Business, Technological and Social Dimensions of Computer Games: Multidisciplinary Developments* (pp. 252–270). Hershey, PA: IGI Global.
- Sharritt, M. J. & Suthers, D.D. (2011). Game-Based Representations as Cues for Collaboration and Learning. In R.E. Ferdig (Ed.) *Discoveries in Gaming and Computer-Mediated Simulations: New Interdisciplinary Applications* (pp. 163–188). Hershey, PA: IGI Global.
- Sharritt, M. J. & Suthers, D.D. (2011). Levels of failure and learning in games. *International Journal of Gaming and Computer-Mediated Simulations*, 3(4), pp. 55–71.
- Sharritt, M. J., Aune, R. K., & Suthers, D. D. (2013). Speaking Gamer with Impenetrable Efficiency. *International Journal of Creative Interfaces and Computer Graphics*, 4(2).
- Sharritt, M. J., Aune, R. K., & Suthers, D. D. (2014). l33tsp33k: How Gamers Speak with Impenetrable Efficiency. *International Journal of Digital Literacy and Digital Competence*, 5(1), pp. 45–65.

Editorial Boards:

Van Eck, R. (Ed.) (2010). *Gaming and Cognition: Theories and Practice from the Learning Sciences*. Hershey, PA: IGI Global.

Van Eck, R. (Ed.) (2010). *Interdisciplinary Models and Tools for Serious Games: Emerging Concepts and Future Directions*. Hershey, PA: IGI Global.

Cruz-Cunha, M. et al. (Eds.) (2011). *Handbook of Research on Serious Games as Educational, Business and Research Tools: Development and Design*. Hershey, PA: IGI Global.

Awards and Honors:

- Top Paper Award, Meaningful Play Conference (Michigan State University, 2008)
- Nominated for the Frances David Award for Excellence in Undergraduate Teaching at the University of Hawai'i at Mānoa (2006–2007)
- Awarded Marquette University's St. Ignatius Engineering Scholarship: a four-year,
 \$30,000 scholarship awarded to the six top scores on an engineering preparedness test given to over 400 incoming freshmen

Service:

- Network Administrator & Webmaster for the Marquette Chapter of Triangle Fraternity
- Former President of the Marquette University IEEE student branch (2000–2001)

Memberships:

Association for Computing Machinery, American Educational Research Association, Edutopia, Institute of Electrical and Electronics Engineers, International Society of the Learning Sciences, National Society of Professional Engineers, the Serious Games Initiative, and Triangle Fraternity (a fraternity of engineers, architects & scientists)

References:

Excellent references available upon request.