

Matthew J. Sharritt

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www.situatedgaming.com

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)

- Dissertation Title: Students' Use of Social and Cognitive Affordances in Video Game Play within Educational Contexts: Implications for Learning
- 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 culturally-specific 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 (2009 – Present)

Situated Research, LLC's mission is to conduct usability research to improve the user experience to create innovative, easy-to-use, creative products (video games, software applications, websites / web applications)

- Offer usability research and testing for software, web, and video game companies
- Offer usability research and testing for software, web, and video game companies, as well as custom web design, collateral creation, and custom web / software applications
- Cutting-edge research completed during doctorate has inspired an innovative, multi-disciplinary approach to video game usability research, showing relationships among the user-experience (game play) and engagement (motivation to play)
- User-experience (UX) research to raise productivity, efficiency for business software apps
- Offer services that aim to improve user interaction, collaboration, and engagement within human-computer interfaces to simplify and enhance the user experience

Contractor (2002 – 2008)

Contract web development and computer assembly 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
- Used Interwoven, a content management tool, to create templates 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, ColdFusion, Perl, SQL, Flash, and HTML; Mac OS and Windows server management (IIS), networking, and troubleshooting; latest computer hardware components and gaming hardware (PC, Wii, Xbox / Xbox 360, PS2 / PS3)

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. Paper selected through peer review as one of the top papers, and publication will be in a special issue of the *International Journal of Gaming and Computer-Mediated Simulations*.

Conferences Attended:

- *Games + Learning + Society (GLS) 4.0*, Madison, WI (July 2008)
- *Meaningful Play 2008*, East Lansing, MI (October 2008)
- *Games + Learning + Society (GLS) 5.0*, Madison, WI (July 2009)

Publications:

Sharritt, M.J. (2009). Evaluating Video Game Design and Interactivity. In R. Van Eck (Ed.) *Interdisciplinary Models and Tools for Serious Games: Emerging Concepts and Future Directions*. Hershey, PA: IGI Global.

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).

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*)

Editorial Boards:

Van Eck, R. (Ed.) (2009). *Interdisciplinary Models and Tools for Serious Games: Emerging Concepts and Future Directions*. Hershey, PA: IGI Global.

Awards and Honors:

- 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 – \$30,000, four-year scholarship awarded to the six top scores on an engineering preparedness test given to over 400 incoming freshmen

Service:

- Network Administrator and 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.