

Michael A. Oren
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EDUCATION

Iowa State University, Ames, IA
Ph.D., Human-Computer Interaction and Sociology, anticipated 2011

Iowa State University, Ames, IA
M.S., Human-Computer Interaction, 2008
Thesis: *Design and evaluation of auditory spatial cues for decision making within a game environment for persons with visual impairments*

DePauw University, Greencastle, IN
B.S., Computer Science and English Writing, 2006

RESEARCH

Iowa State University **Ames, IA** **June 2006 - Present**

Research assistant under Stephen B. Gilbert, August 2008 - Present

- Wrote an \$800,000 grant proposal to the National Science Foundation to support my research into an interface technique to promote social affinity (ConvoCons)
- Planned and conducted studies to explore how dyads collaborate on a multi-touch system.
- Led the planning efforts for conducting site observations and interviews to support the efforts of research in virtual assembly.
- Brainstormed and created requirements documents for multi-touch applications and other collaborative systems.
- Defined a team research agenda for exploring affinity creation using ConvoCons (conversation starting icons).
- Assisted in the assessment of an intelligent tutoring system (xPST) for web sites.
- Proposed development of a multi-touch tangrams application to explore virtual assembly collaboration.

Research assistant under Christopher Harding, June 2006 – July 2008

- Designed and programmed an auditory interface for an open source game for persons with visual impairments.
- Collaborated with resources for students with visual impairments to conduct research on audio games.
- Designed and programmed sound and user interface components of a stereoscopic haptic 3D mesh manipulation application.
- Planned and conducted a research study to assess the usability of the auditory interface and the different mental mapping strategies with persons with visual impairments and normal vision.

DePauw University **Greencastle, IN** **May 2004 - August 2004**

Undergraduate researcher in the NSF funded research experience for undergraduates summer program

- Designed, programmed, and evaluated a gesture driven icon system (gedrics) for DyKnow VISION.
- Planned and conducted a user study to evaluate user performance and preferences for new features of DyKnow VISION.
- Presented research at national Argonne conference.
- Presented research at the 2005 ACM-SIGCSE student research competition as one of the top five undergraduate entries.

PUBLICATIONS AND PRESENTATIONS

Book Chapters

Drewski, Eric; Godby, Kevin; Grover, Trent; Maximova, Elena; **Oren, Michael**; Parkhurst, Derrick; Triplett, Janea; William, Valerie (2007). Shiny Happy Users. Published by Lulu.com

Brown, Harry; **Oren, Michael** (2005). "Living Art: Commercial Modding and Code-Illiterate Gamers". Digital Gameplay. Ed. Nathan Garrelts. McFarland Press.

Journals

Oren, Michael; Harding, Christopher; Bonebright, Terri (December 2008). "Audio Platform Game (APG) Design for Players with Visual Impairments". *Journal of Visual Impairment and Blindness*.

Conference Presentations (Full Papers – Peer Reviewed)

Oren, Michael; Gilbert Stephen (**In Review**) "ConvoCons: A Technique for Promoting Social Affinity". Submitted to CHI '10.

Oren, Michael; Gilbert, Stephen (July 2009). "ConvoCons: Encouraging Affinity on Multitouch Interfaces". In the proceedings of Human-Computer Interaction International 2009. San Diego, CA. (Acceptance rate: 32%)

Oren, Michael; Seth, Utkarsh; Huang, Fei; Kang, Sunghyun (July 2009). "Cross-cultural Design & Evaluation of the Apple iPhone". In the proceedings of Human-Computer Interaction International 2009. San Diego, CA. (Acceptance rate: 32%)

Bennett, Jeremy; Faeth, Adam; **Oren, Michael**. (April 2009). "Wiicussion: Fasten Your Wrist Strap". In Proceedings of Iowa State University's Emerging Technologies Conference. Ames, IA.

Russell, Daniel; **Oren, Michael** (January 2009). "Retrospective Cued Recall: A method for accurately recalling previous user behaviors". In the proceedings of the Association of Computing Machinery's Hawaii International Conference on System Science 2009. (Acceptance rate: 50%)

Faeth, Adam; **Oren, Michael**; Harding, Chris (October 2008). "Combining 3-D geovisualization with force feedback driven user interaction" In the proceeds of the Association of Computing Machinery's Geographic Information Systems (GIS). (Acceptance rate: 20%)

Conference Presentations (Short Papers – Peer Reviewed)

Faeth, Adam; **Oren, Michael**; Sheller, Johnathon; Godinez, Sean; Harding, Chris (April 2008). "Cutting, Deforming and Painting of 3D meshes in a Two Handed Viso-haptic VR System (SKETCH)". Proceedings of the IEEE Virtual Reality Conference 2008. (Acceptance rate: 33%)

Conference Presentations (Published Abstracts – Peer Reviewed)

Oren, Michael; Harding Christopher; Bonebright, Terri (October, 2008). "Mapping Metroid: Evaluation of 2D Spatial Navigation Abilities in Persons with Visual Impairments with the Aid of an Auditory Platform Game". In the proceedings of the Association of Computing Machinery's ASSETS Conference 2008.

Oren, Michael (May, 2007). "Speed Sonic Across the Span: Building a Platform Audio Game". In the Proceedings of the Association of Computing Machinery's Computer-Human Interaction 2007. San Jose, CA.

Oren, Michael; Harding, Chris; Bonebright, Terri (June 2007). "Speed Sonic Across the Span: A Platform Audio Game". Proceedings of the International Conference on Auditory Displays 2007. Montreal, Canada.

Master's Thesis

Oren, Michael (2008). *Super Sonic: Design and evaluation of auditory spatial cues for decision making within a game environment for persons with visual impairments*

Undergraduate Conference Presentations (Posters)

Oren, Michael; Schafer, Laura; Berque, Dave (February, 2005). "Enhancing a Pen-based Groupware System through Image Caching and Gesture Recognition". Proceedings of the Association for Computing Machinery's Special Interest Group for Computer Science Education Conference 2005. St. Louis, MO. (Peer reviewed research competition, placed in top 5)

Schafer, Laura; **Oren, Michael**; Berque, Dave (November, 2004). "Enhancing a Pen-based Groupware System through Image Caching and Gesture Recognition". Argonne National Laboratory Undergraduate Research Symposium 2004. DuPage County, IL.

TEACHING

Iowa State University **Ames, IA** **August 2008 - Present**

Teaching assistant: Human-Computer Interaction 521 (Cognitive Psychology of Human-Computer Interaction) – Fall 2008

- Led lectures and discussions when the professor was absent, graded all student work and maintained online grade sheets for student access, revised assignments as needed, served as the primary contact for all students outside of the classroom, and assisted off-campus students in their course experience. Course content was a broad overview of the field of HCI serving as an introductory course for new graduate students that included theory and practice.

Course Designer and Teaching Assistant: Human-Computer Interaction 596X (Emerging Practices in HCI) – Summer 2009

- Conceptualized this graduate course for practitioners performing usability design and analysis in industry, wrote syllabus and experimental course approval form, planned lectures and assignments. Created lecture content, created assignments, conducted lectures, and graded assignments in partnership with a full-time instructor. Topics included interface design, implementation, and evaluation; social theories of work practice as it applies to HCI design and evaluation; and service design. Course web site: <http://sites.google.com/site/hci596s09/>

Guest Lecturer: Music 446 (Electronic Music Synthesis) – Fall 2009

- Served as lecturer while the instructor was out of the country for two weeks. Lectured on amplitude modulation, frequency modulation, and ran the corresponding studio labs related to these topics.

Preparing Future Faculty

- Accepted into the PFF program at Iowa State University in Fall 2009. Mentored by Daniel Krier, Sociology.

DePauw University**Greencastle, IN****January 2004 – December 2005***Academic Resource Center Tutor: Quantitative Reasoning, Computer Science*

- Tutored students in introductory computer science courses on basic quantitative reasoning to help them understand the core concepts behind programming and assisted their understanding of the Java programming language.

Co-Creator: English 155G (Narrative, Hypertext, and Gaming)

- Researched gaming narrative and suggested game titles that would be beneficial to students in the experimental course.

GRANTS*Major: Designing User Interfaces to Promote Affinity, Social Capital, and Group Creativity*

- \$800,000 (**In Review**). Create an interface plug-in that promotes social affinity within groups for the purposes of increased social capital and groups creativity without negatively impacting efficiency. Submitted 2/15/08; National Science Foundation (CreativeIT, solicitation NSF 09-572), Primary Investigator: Stephen Gilbert, Co-PI's: Brian Mennecke, Debra Satterfield, Doug Jacobson, and Eliot Winer.

Alternative Technology Exploratorium & Usability Lab

- \$36,006 (Fully Funded). Expose Iowa State students to a variety of non-traditional technologies and provide the tools essential for hands-on usability testing activities. Submitted 2/15/08; Iowa State University Computer Advisory Committee, Project Leaders: Ana Paula Correia, Clyciane K. Michelini, Stephen Gilbert, Sheley Johnson; Other Faculty Participants: Cheryl Achterberg, Carl Smith, Niki Davis, Brian Mennecke, Anthony Townsend, Lori Brunner, Sunghyun Kang; Graduate Student Participants: Jeremiah Still, **Michael Oren**, Jacob Larsen, Evrim Baran; Undergraduate Student Participants: Melanie Ritcher, Ginny Rogers, Kate Schmidt, Matthew Wisniewski, Kurt Jones.

Right-Here-Right-Now (Rhino) mobile classroom

- \$ 37,671 (Not Funded). Provide university students, in particular students in the Teacher Education, HCI, and World Languages and Cultures programs across campus access to flexible and integrated technology devices to lead them to 21st century education. Time and space will be limited by their own needs and creativity and exploration and discovery will happen. Submitted 3/3/09; Iowa State University Computer Advisory Committee, Project Leaders: Clyciane K. Michelini, Sheley Johnson, Joe Ehrecke; Other Faculty Participants: Pamela White, Carl Smith, Ann Thompson, Julio Rodriguez, Ana Paula Correia, Hina Patel; Graduate Student Participants: **Michael Oren**; Undergraduate Student Participants: Erin Baker, Maria Kohlhaas, Chris Siguenza.

AWARDS & HONORS**Iowa State's Human-Computer Interaction Student of the Year Award**

Nominated 2007, 2008, and 2009

Awarded 2009

INTERNSHIPS**Google, Inc.****Mountain View, CA****May 2007 – August 2007***User Experience Researcher*

- Proposed a research plan to the product manager and conducted usability evaluation of the product.
- Performed quantitative and qualitative data collection and analysis to improve the usability of products.
- Reported findings to team and stakeholders through written reports and presentations.
- Modified traditional longitudinal study techniques to obtain more relevant data resulting in a conference paper.

- Participated in cognitive walkthroughs, a card sort, and a pilot of a new diary study technique to help co-workers and broaden my knowledge of research techniques

LexisNexis Interface Software**Oak Brook, IL****January 2006 – June 2006***Development Intern*

- Investigated and resolved computer software and hardware problems of users.
- Designed and produced Microsoft Reporting Services 2000 report templates.
- Wrote, designed and produced test cases for the Windows and web versions of an application.
- Trained designers, developers, and technical writers in the use of Microsoft Reporting Services 2000 and its integration with the application.
- Communicated software errors and recommend application changes to programmer and management teams.
- Tested software and hardware to evaluate ease of use and whether product would aid user in performing work.

Aerospace Corporation**El Segundo, CA****May 2005 – August 2005***TS3 Engineering Intern*

- Wrote, designed and programmed a prototype interface for the BeoNET satellite simulation program.
- Installed and documented the debian package manager for Solaris 8.
- Created archival file of experimental flight system data.
- Granted secret clearance by the US Department of Defense (expired).

DePauw Univeristy**Greencastle, IN****August 2002 – December 2005***Web developer: e-business team*

- Wrote, designed and produced an Access database and front end to host judicial records for student services.
- Investigated and resolved computer software and hardware problems of users.
- Served as webmaster for Sodexo USA's DePauw University branch, including weekly updates, creating marketing material, and training my replacement.

SERVICE & LEADERSHIP

- Summer 2009 Meta-Mentor for the NSF-funded SPIRE-EIT Research Experience for Undergraduates (REU)
 - Taught weekly seminar on the craft of research
 - Organized social events
 - Helped lead weekly discussions on journal articles
- 2009 Reviewer for Journal of Management Information Systems (JMIS) special issue on best-paper nominees of the 2009 Hawaii International Conference on System Sciences
- 2009 Reviewer for Journal of Database Management (JDM) special issue on virtual worlds and 3-D web
- 2008 – 2009 President of the Human-Computer Interaction Student Group (Iowa State University)
 - Mentored new students in the Human-Computer Interaction program.
 - Participated in the Human-Computer Interaction program supervisory committee as a voting member.
 - Reviewed and voted on faculty candidates as part of the Human-Computer Interaction faculty search committee.

Major Accomplishments:

- Doubled student attendance at meetings from the previous year and increased awareness of the student group.
- Provided online access to student group meetings for off-campus students and initiated a system of rotating the meeting location to the three areas of campus with concentrations of Human-Computer

Interaction students.

- Reduced number of student complaints about feeling disconnected and increased sense of community.
- Invited monthly guest speakers from industry and other academic institutions to give remote talks.
- Summer 2008 Participant in the Summer of Usability and conducted a usability assessment of the open source SIP Communicator application.
- 2008 – 2009 Reviewer for the Usability Professional Association Conference
- 2007 – 2008 Treasurer of the Human-Computer Interaction Student Group (Iowa State University)
- 2007 – 2008 Human-Computer Interaction senator to the graduate and professional student senate (Iowa State University)
- 2004 – 2005 Vice President of Academic Affairs of the Government of the Student Body (DePauw University)
 - Voting member of the Committee on Academic Policy and Planning.
 - Participated in discussions on revising the general education requirements, attended the faculty senate meetings, reviewed departmental proposals for additional faculty members, and reviewed department assessment results.
- 2004-2005 Director of Community Affairs of the Resident Student Association (DePauw University)
- 2003 – 2004 President of the Resident Student Association (DePauw University)
 - Represented the interests of students in resident halls at board of trustee meetings.
 - Served on the cabinet of the government of the student body as one of eleven organizations.
 - Wrote and presented white papers to ban smoking within twenty feet of resident halls, add air conditioning to residence halls that lacked them, and for the creation of a student activity space.
 - Recruited students to serve as leaders within their residence halls and served as a mentor to the hall presidents.
 - Instituted a free DVD rental program available to all students on campus and programmed a database system to keep track of the inventory.
 - Developed new programs for first year students to ease their transition to college life.
- 2002 – 2004 Mentor in College Mentor for Kids (DePauw University)
- 2002 – 2003 President of Anderson Hall (DePauw University)
- January 2003 Winter Term Co-Chair of Union Board (DePauw University)

PROFESSIONAL ORGANIZATIONS

- *American Sociological Association*; member of the CITASA and theory special interest groups
- *Association of Computing Machinery*, member of the special interest group for Computer-Human Interaction
- *Usability Professional's Association*