Michael A. Oren
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EDUCATION

Iowa State University, Ames, IA
Ph.D., Human-Computer Interaction, anticipated May 2011
Ph.D., Sociology, anticipated May 2011
Dissertation: *Human-Computer Interaction and Sociological Insight: A theoretical examination and experiment in building affinity in small groups*
Human-Computer Interaction Student of the Year Award (2009)
Graduate and Professional Student Senate Peer Research Award (2009)
Teaching Excellence Award (2010 http://www.grad-college.iastate.edu/awards/tex.html)

Iowa State University, Ames, IA
M.S., Human-Computer Interaction, May 2008
Thesis: *Design and evaluation of auditory spatial cues for decision making within a game environment for persons with visual impairments*
Human-Computer Interaction Student of the Year Award (nominated 2007 & 2008)

DePauw University, Greencastle, IN
B.A., Computer Science, May 2006
B.A., English Creative Writing, May 2006
Graduated Cum Laude

TRAINING

Iowa State University **Ames, IA**
Completed Graduate Student Teaching Certificate (Spring 2010)
Completed Higher Education Course on College Teaching (Spring 2010)
Completed all four courses offered by the Preparing Future Faculty* program
Attended NSF Day at University of Iowa (October 10, 2009)

RESEARCH

Summary: My research stands at the nexus of the disciplines of computer science and sociology through the interdisciplinary field of human-computer interaction. I seek to explore the way social theories can be utilized in the design of computer interfaces that increase collaboration along with the ways technology effects social structure.

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* Preparing Future Faculty (PFF) is a national program designed to provide training and knowledge about a broad range of faculty responsibilities through partnerships with institutions of various sizes and compositions. For more information: http://www.celt.iastate.edu/pff/.

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

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

- Co-wrote NSF CreativeIT grant.
- Assisted in writing several NSF and industry grants.
- Managed and conducted observational studies of John Deere & Co. engineering processes.
- Mentored students in writing Institutional Review Board (IRB) submissions.
- Led the planning efforts for conducting field observations and interviews to support the efforts of research in virtual assembly at an industry site.
- 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 William F. Woodman and Daniel Krier May 2010-August 2010

- Filmed and edited videos for the online version of introduction to sociology
- Created and maintained online teaching and research resource for Dan Krier

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.
- Developed research partnerships with state organizations that serve as resources for individuals with visual impairments.
- 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 of 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.

TEACHING

Drake University **Des Moines, IA** **August 2010 – December 2010**

Course Designer and Instructor: Social Roles of Technology – Fall 2010

- This low-level sociology course of thirty-five students explores the intersections of social interactions and organizations with technology and the way society and technology interact to shape one another. My role in this course was to propose the course, create the course content, and lead the students in their learning experience.

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

Course Designer and Instructor: Honors Seminar on Anti-Social Technologies – Fall 2010

- This discussion-focused seminar with nineteen students will require students to evaluate their own use of social technologies and the ways in which it helps and hampers their lives. My role in this course was to write a proposal to the honors program, create the course content, and lead student discussions on the course topic.

Guest Lecturer: Introduction to Sociology

- Created content and led the student learning on topics of the role of technology in society and the ways it changes social structure for two large lecture sections (over 200 students). Helped lead discussion for an extra credit viewing of 1984 with over 100 students.

Guest Lecturer: Electronic Music Synthesis – Fall 2009

- Led student learning while the instructor was out of the country for two weeks. The topics covered in the classroom were amplitude modulation, frequency modulation, and ran the corresponding studio labs related to these topics.

Course Designer and Teaching Assistant: Emerging Practices in Human-Computer Interaction– Summer 2009

- Conceptualized this predominantly distance education 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/

Instructor for Iowa State NSF-funded Research Experience for Undergraduates (REU) courses on introduction to HCI and craft of research – Summer 2009

- Led the learning experience of fifteen undergraduate students on the foundational concepts of human-computer interaction and led discussions related to the "craft of research" providing input on research design, writing research papers, and information about graduate school.

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

- Led course instruction 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 provided a broad overview of the field of HCI and served as an introductory course for new graduate students in order to provide students with a broad overview of HCI theory and practice.

DePauw University **Greencastle, IN** **January 2004 – December 2005**

Academic Resource Center Tutor: Quantitative Reasoning, Computer Science

- Tutored undergraduate 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)

- Aided in curriculum development and researched possible material for this experimental course.

INDUSTRY EXPERIENCE

SIP Communicator **May 2008-August 2008**

Season of Usability Intern (Open Source Usability Project)

- Planned and conducted a competitive analysis of different instant messenger clients
- Collaborated remotely with team members in France and Germany
- Created and analyzed a survey assessing user needs for features and usability goals

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

- 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 recommended application changes to programmer and management teams.
- Tested software and hardware to evaluate ease of use and usefulness of products to the target market.

Aerospace Corporation **El Segundo, CA** **May 2005 – August 2005**
TS3Engineering 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.
- Served as webmaster for Sodexho USA's DePauw University branch, including weekly updates, creating marketing material, and training my replacement.

SCHOLARSHIP

Book Chapters

Drewski, E., Godby, K., Grover, T., Maximova, E., **Oren, M.**, Parkhurst, D., Triplett, J., William, V. (2007). *Shiny Happy Users*. Published by Lulu.com

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

Journal Articles

Oren, M. (**In Progress**) "Moving Forward Without Moving Back: The Place of Classic Sociological Theory in Modern Times." To be submitted to the *American Journal of Sociology*.

Oren, M., Gilbert, S. (**In Progress**) "ConvoCons: A Conversational Agent for Promoting Affinity Among Strangers in Co-Located and Remote Work." To be submitted to *Transactions on Computer-Human Interactions*.

Oren, M. (**In Progress**) "Society-Computer Interaction: Moving Human-Computer Interaction Beyond Individuals and Small Groups Through Social Theory." To be submitted to *Human-Computer Interaction*.

Oren, M., Harding, C.,,Bonebright, T. (December 2008). "Design and Usability Testing of an Audio Platform Game for Players with Visual Impairments." *Journal of Visual Impairment and Blindness*, 102(12), pp. 761-773.

Conference Presentations (Full Papers – Peer Reviewed)

Oren, M., Gilbert, S. (2010) "Building Better Design Teams: Enhancing Group Affinity to Aid Collaborative Design." In the proceedings of *Design Computing and Cognition (DCC)* 2010. Stuttgart, Germany. (Acceptance rate: 31%)

Oren, M., Gilbert, S. (July 2009). "ConvoCons: Encouraging Affinity on Multitouch Interfaces." Proceedings of *Human-Computer Interaction International 2009*. San Diego, CA. (Acceptance rate: 32%)

Oren, M., Seth, U., Huang, F., Kang, S.(July 2009). "Cross-cultural Design & Evaluation of the Apple iPhone." Proceedings of *Human-Computer Interaction International 2009.* San Diego, CA. (Acceptance rate: 32%)

Bennett, J., Faeth, A., **Oren, M.** (April 2009). "Wiicussion: Fasten Your Wrist Strap." Proceedings of *Emerging Technologies Conference (ETC)*. Ames, IA. (Acceptance rate: 66%)

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

Faeth, A., **Oren, M.**, Harding, C. (October 2008). "Combining 3-D geovisualization with force feedback driven user interaction." Proceedings of the *Association of Computing Machinery's Geographic Information Systems (GIS)*. (Acceptance rate: 20%)

Conference Presentations (Short Papers – Peer Reviewed))

Faeth, A., **Oren, M.**, Sheller, J., Godinez, S., Harding, C. (April 2008). "Cutting, Deforming and Painting of 3D meshes in a Two Handed Viso-haptic VR System (SKETCH)." Proceedings of *IEEE Virtual Reality Conference 2008*. (Acceptance rate: 33%)

Conference Posters (Published Abstracts – Peer Reviewed)

Oren, M., **Gilbert, S.** (**To Appear**). "Framework for Measuring Group Social Affinity for Computer Supported Cooperative Work." Proceedings of *Association of Computing Machiner's Computer-Human Interaction 2011*. Vancouver, Canada.

Oren, M., Harding C., Bonebright, T. (October, 2008). " Evaluation of Spatial Abilities Within a 2D Auditory Platform Game." Proceedings of *Association of Computing Machinery's ASSETS Conference 2008*.

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

Oren, M., Harding, C., Bonebright, T. (June 2007). "Speed Sonic Across the Span: A Platform Audio Game." Proceedings of *International Conference on Auditory Displays (ICAD) 2007*. Montreal, Canada.

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

Conference Posters

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

Conference Roundtables & Workshops (Peer Reviewed)

Oren, M., Woodman, W. F. (2010). "Rethinking Social Theory: How Technology Changes Everything." Technology and Society: Critical Perspectives roundtable. In *American Sociological Association (ASA) Annual Meeting* 2010.

Oren, M., Gilbert, S. (2010) "Interfaces for Communication Intervention: Utilizing social theory to support interdisciplinary design communication." In the proceedings of the Design Communication workshop at *Design Computing and Cognition (DCC)* 2010. Stuttgart, Germany.

GRANT WRITING EXPERIENCE

HCC: Small: Designing User Interfaces to Promote Affinity, Social Capital, and Group Creativity

- $500,000 (**In Review**). Create an interface plug-in that promotes social affinity within groups for the purposes of increased social capital and group creativity without negatively impacting efficiency. Submitted 12/17/10; National Science Foundation (IIS Core Programs, solicitation NSF 10-571), Primary Investigator: Stephen Gilbert, Co-PI's: Gregory Aist, and Brian Mennecke.

Improving Virtual Builds to Support Global Engineering Teams

- $421,201 (Not Funded). Create tools to improve the virtual build process used at John Deere to enable distributed engineering teams to analyze designs and provide a means for all individuals to annotate, store, and search feedback on engineering design decisions. Submitted 05/05/010; John Deere Corporation, Primary Investigator: Stephen Gilbert

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

- $800,000 (Not Funded). Create an interface plug-in that promotes social affinity within groups for the purposes of increased social capital and group creativity without negatively impacting efficiency. Submitted 11/13/09; 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, especially students in the Teacher Education, HCI, and World Languages and Cultures programs access to flexible and integrated technology devices to lead them to 21st century education. 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.

GRADUATE COURSES

- Psychology/HCI: Cognitive Psychology of Human-Computer Interaction
- HCI: Seminar in Human-Computer Interaction
- Music: Electronic Music Synthesis
- HCI: Scientific Methods of Human-Computer Interaction
- Computer Engineering/HCI: Computational Perception
- Music: Special Topics: Electronic Music
- Management Information Sciences/HCI: Organizational and Social Implications of Human-Computer Interaction
- Statistics: Statistical Methods of Researchers
- Art & Graphic Design/HCI: Graphic Design and Human-Computer Interaction
- Curriculum and Instruction: Technology for Teachers
- Research and Evaluation: Program Assessment and Evaluation
- Sociology: History of Social Thought
- Research and Evaluation: Qualitative Research Methods
- Sociology: Intermediate Research Methods
- Sociology: Classical Sociological Theory
- Sociology: Contemporary Sociological Theory
- Sociology: Advanced Linear and Factor Models
- Statistics: Regression Modeling
- Sociology: Structural Equation and Latent Variable Models

SERVICE & LEADERSHIP

- 2011 Reviewer for CHI 2011 full papers
- 2010 Reviewer for the American Journal of Sociology

- 2010 Reviewer for ACM SIGCHI Symposium on Interactive Computer Systems (EICS) full papers
- 2010 Student Volunteer at the Computer-Supported Cooperative Work (CSCW '10) conference
- 2010 Reviewer for CHI 2010 Works-in-Progress Posters.
- Summer 2009 Meta-Mentor for the NSF-funded SPIRE-EIT Research Experience for Undergraduates (REU)
    - Taught weekly seminar on the craft of research
    - Taught an introduction to Human-Computer Interaction course
    - 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
- 2009 Student volunteer at the Human-Computer Interaction International Conference
- 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.
- 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.
    - Developed new programs for first year students to ease their transition to college life.

PROFESSIONAL MEMBERSHIPS

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