

Bryan C. Semaan

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EDUCATION

Ph.D., Information and Computer Science

University of California, Irvine

Donald Bren School of Information and Computer Sciences

Department of Informatics

* Completed: November 2011

* Concentration: Interactive and Collaborative Technologies (ICT)

* **Committee:** Gloria Mark (Chair); Judy Olson; Gary Olson; Leysia Palen

Master of Science, Information and Computer Science

University of California, Irvine

Donald Bren School of Information and Computer Sciences

Department of Informatics

* Completed: June 2007

Bachelor of Science, Information and Computer Science

University of California, Irvine

Donald Bren School of Information and Computer Sciences

* Completed: September 2001 – June 2005

RESEARCH INTERESTS

* Computer Supported Cooperative Work (CSCW)

* Human-Computer Interaction (HCI)

* Crisis Informatics

* Intercultural Collaboration

* Collaborative Technologies

* Organizational and Management Sciences

* Sociology

* Psychology

AWARDS AND FELLOWSHIPS

* Human Computer Interaction Consortium (HCIC), Student Invitee 2011

* ACM SIG Travel Grant 2011

* ACM GROUP Conference, Doctoral Colloquium Participant 2010

* ACM CHI Conference, Honorable Mention for Best Paper 2010

* Roberta Ellen Lamb Endowed Memorial Fellowship (Awarded \$10,000) 2009-2010

* Coalition Advocating Human Security Fellowship (Awarded \$10,000) 2007-2008

* Outstanding Teaching Assistant Award 2005-2006

RESEARCH

Graduate Student Researcher, Gloria Mark, UC Irvine

September 2006 to Present

Project: *Factors that Affect Collaboration Resilience* (<http://www.ics.uci.edu/~pr-react/>)

* Conducted an empirical study investigating how information technology can be used to support recovery and resilience among people living in disrupted environments

* Studied the extent to which technology enabled people in Israel to continue their collaborative work during the Israel-Lebanon war of 2006

- * Examined the ways in which Iraqi civilians who experienced the 2nd Gulf War, beginning in March 2003, used technology in order to engage in recovery activities, as well as to maintain practices for: (1) social life, (2) work, (3) education, (4) travel, (5) and obtaining information and services
- * Performed and transcribed over 100 interviews in both English and Arabic
- * Developed and deployed an online survey in order to reach a broader demographic
- * Collected archival data in the form of blogs, Social Network communications, email distribution lists, and online forum messages in order to further triangulate with interview data
- * Analyzed qualitative data using an approach from grounded theory
- * Mentored undergraduate students in developing qualitative and quantitative research techniques
- * Wrote an NSF proposal for a grant that was later funded in conjunction with my advisor Dr. Gloria Mark, our research colleague Dr. Martha Feldman, and members of the IBM Haifa research group

Graduate Student Researcher, Gloria Mark, UC Irvine September 2005 to August 2006

Project: *Challenges of Inter-Organizational Collaboration in Humanitarian Relief*

- * Created a proposal to study communication and coordination patterns employed by Doctors without Borders
- * Wrote a Literature Review in order to identify research trends and perspectives, as well as to identify future research areas

Undergraduate Researcher, Ian Harris, UC Irvine January 2004 to June 2005

- * Investigated the role of the Operating System Scheduler (OSS) and its effect on the debugging of concurrent Java programs
- * Developed a tool that inserted errors into Java programs running more than one process at any given time, and found that even with these errors, the code still produced correct output
- * Compiled a list of errors that are usually made while programming concurrently

TEACHING

Teaching Assistant, UCI Department of Informatics September 2007 to December 2007

- * Informatics 125/CS 113, *Computer Game Development* (Taught by Dan Frost)
- * Managed lab sections to provide support to student project groups
- * Graded student projects with the course instructor

Teaching Assistant, UCI Department of Informatics August 2007 to September 2007

- * Informatics 111/ICS 121, *Software Engineering Tools and Methods* (Taught by Lihua Xu)
- * Instructed discussion sections and led lectures to stimulate thought and ways to apply material
- * Administered lab sections to help students practice using various Software Tools and Methods
- * Graded homework and exams

Teaching Assistant, UCI Department of Informatics March 2006 to June 2006

- * Informatics 161/ICS 131, *Social Analysis of Computerization* (Taught by Bill Tomlinson)
- * Participated in course design, e.g. developing the course schedule, selecting course materials, and creating both the Midterm and Final exams
- * Instructed discussion sections to stimulate thought and ways to apply material
- * Developed course website
- * Graded homework, papers, and exams

Teaching Assistant, UCI Department of Informatics January 2006 to March 2006

- * Informatics 131/ICS 104, *Human-Computer Interaction* (Taught by David Redmiles)
- * Collaborated with instructor to design course, e.g. developing lesson plans and grading rubrics
- * Instructed discussion sections to stimulate thought and ways to apply material
- * Graded homework, papers, and exams

Teaching Assistant, UCI Department of Informatics September 2005 to December 2005

- * Informatics 111/ICS 121, *Software Engineering Tools and Methods* (Taught by Dan Frost)
- * Worked with course readers and the course instructor to plan classes containing over 100 students
- * Oversaw many elements of preparation
- * Graded homework, papers, and exams

INERNSHIPS AND OTHER EXPERIENCE

Usability Intern, Southern California Edison June 2009 to September 2009

- * Initiated a usability study of SAP, an ERP system that had been recently deployed at Edison
- * Gathered data from the various business units across Edison International in order to develop a usability strategy
- * Developed a usability roadmap that is currently being leveraged to assess and address usability issues that incorporates various HCI techniques, e.g. in-situ observations, surveys and lab studies, taking into account various user groups across multiple business units

Qualitative Research Methods Course January 2006 to March 2006

- * Performed a qualitative study of Street Performers in Santa Monica
- * Developed an interview protocol and interviewed several informants
- * Observed licensed performers at work
- * Evaluated the data using an approach from grounded theory

Organizational Information Systems Course January 2005 to March 2005

- * Performed a qualitative study of the UCI Library Information System
- * Developed an interview protocol and interviewed five informants
- * Observed the ways in which informants used the library system
- * Evaluated the data using an approach from grounded theory, and developed new system requirements to make the system more usable

SAT Instructor, The Princeton Review October 2004 to September 2005

- * Instructed students on test taking methods to improve their SAT verbal and math scores

Software Engineering Project Course September 2004 to December 2004

- * Worked in a group consisting of 8 people; 4 working on the GUI aspect of the project, and the other 4 working on the database and data retrieval elements
- * Acting team leader, responsible for coordinating between the GUI team and the database team, as well as coordinating with our customer
- * Created a Mitochondrial Genome Browser that is now being used by researchers at the university to compare different sequences of mtDNA in an effort to pinpoint and analyze mutated sequences of DNA
- * Designed, developed, and tested the system on a tight schedule over a 10 week period

Software Engineering Internship, Technijian Inc. June 2003 to July 2003

- * Initiated the development of an inventory database that serves as an interface between customers and employees
- * Developed a process to streamline their archaic paper based inventory management system

PUBLICATIONS

Journal Papers, Peer-Reviewed

Semaan, B., Mark, G. (2011). Technology-Mediated Social Arrangements to Resolve Breakdowns in Infrastructure During Ongoing Disruption. In Proceedings of ACM Transactions on Human-Computer Interaction (TOCHI), 18 (4). New York: ACM.

Conference Proceedings, Peer-Reviewed

Semaan, B., Mark, G. (2012). 'Facebooking' Towards Crisis Recovery and Beyond: Disruption as an Opportunity. To Appear in Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW 2012). Seattle, WA, USA.

Semaan, B., Mark, G. (2011). Creating a Context of Trust with ICTs: Restoring a Sense of Normalcy in the Environment. In Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW 2011). Hangzhou, China. New York: ACM.

Al-Ani, B., Mark, G., Semaan, B. (2010). Blogging through Conflict: Sojourners in the Age of Social Media. In Proceedings of the ACM International Conference on Intercultural Collaboration (ICIC 2010). Copenhagen, Denmark. New York: ACM

Semaan, B., Mark, G., Al-Ani, B. (2010). Developing Information Technologies for Citizens Experiencing Disruption: The Role of Trust and Context. In Proceedings of the Information Systems for Crisis Response and Management Conference (ISCRAM 2010). Seattle, WA, USA.

Al-Ani, B., Mark, G., Semaan, B. (2010). Blogging in a Region of Violent Conflict: Supporting the Transition to Recovery. In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2010). Atlanta, GA, USA. New York: ACM. **Honorable Mention for Best Paper.**

Mark, G., Al-Ani, B., Semaan, B. (2009). Repairing Human Infrastructure in War Zones. In Proceedings of the Conference on Information Systems for Crisis Response and Management (ISCRAM 2009). Gothenburg, Sweden.

Mark, G., Al-Ani, B., Semaan, B. (2009). Resilience Through Technology Adoption: Merging the Old and the New in Iraq. In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2009). Boston, MA, USA. New York: ACM.

Mark, G., Semaan, B. (2009). Expanding a Country's Borders During War: The Internet War Diary. In Proceedings of the ACM International Workshop on Intercultural Collaboration (IWIC 2009). Palo Alto, CA, USA. New York: ACM.

Mark, G., Semaan, B. (2008). Resilience in Collaboration: Technology as a Resource for New Patterns of Action. In Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW 2008). San Diego, CA, USA. New York: ACM.

Book Chapters

Semaan, B., Mark, G., Al-Ani, B. (2011). The Effects of Continual Disruption: Technological Resources Supporting Resilience in Regions of Conflict. In Hagar, C. (2011). Crisis Information Management: Communication and Technologies. Chandos Publishing, Oxford, UK.

Position Papers

Mark, G., Semaan, B. (2011). Building Resilience in Disrupted Environments with ICTs. Workshop on Social Media for Development, held in conjunction with the ACM Conference on Computer Supported Cooperative Work (CSCW'11). Hangzhou, China. New York: ACM.

Semaan, B. (2010). Technology as a Resource for Reconstituting the Social World: Life in a War Zone. Doctoral Colloquium, held in conjunction with the ACM Conference on Organizational Computing and Groupware Technologies (GROUP'10). Sanibel Island, FL, USA. New York: ACM.

Literature Reviews

Semaan, B. (2009). A “Typical” Life in an Atypical Environment: Technology Use in a War Zone. Literature Review for Advancement to Candidacy. University of California, Irvine.

Dissertation

Semaan, B. (2011). Recovery, Resilience and Beyond: ICT Use During Ongoing Disruption. Doctoral Dissertation, University of California, Irvine.

INVITED TALKS AND PANELS

Invited Talks

* April 2010, Borah Symposium on Global Action through Social Media, Presentation titled, “Expanding a Country’s Borders During War: The Internet War Diary”

Invited Panels

* April 2010, Borah Symposium on Global Action through Social Media, Panel Discussion, “Theory, History, Policy, and Technology of Social Media”

POSTER PRESENTATIONS

* November 2010, ACM Conference on Organizational Computing and Groupware Technologies (GROUP’10), Poster Presentation, “Technology as a Resource for Reconstituting the Social World: Life in a War Zone”

* November 2009, U.S. Department of Homeland Security Workshop on Emergency Management, Poster Presentation, “Resilience in Collaboration: Technology as a Resource for New Patterns of Action”

* June 2008, ISR Graduate Student Research Symposium, Poster Presentation, “Collaboration Resilience: Technology as a Resource for New Patterns of Action”

PROFESSIONAL ASSOCIATIONS

* Student member of the ACM (Association of Computing Machinery)

ACADEMIC INVOLVEMENT/SERVICE

* CHI Conference, Paper Reviewer	2011
* CSCW Conference, Student Volunteer	2011
* Participated in ACM GROUP Conference, Doctoral Colloquium	2010
* CSCW Conference, Paper Reviewer	2010
* CHI Conference, Paper Reviewer	2010
* ISCRAM Conference, Paper Reviewer	2010
* ECSCW Conference, Paper Reviewer	2009
* ISCRAM Conference, Paper Reviewer	2009
* Faculty Hiring Committee (Gary Olson, Gloria Mark, Bonnie Nardi), Student Member	2009
* CSCW Conference, Paper Reviewer	2008
* CSCW Conference, Student Volunteer	2008
* ISR Graduate Student Research Symposium 2008, Organizing Committee	2007-2008
* ISR Graduate Student Research Symposium 2007, Program Committee	2007

SKILLS

* Experienced with qualitative techniques (ethnography, Grounded Theory, field work, interviews), quantitative techniques (survey design), and usability techniques (lab studies, cognitive walkthroughs, participatory design)

* Proficient in Java Programming, and use of the Eclipse IDE

* Familiar programming with C++, SQL, PHP, HTML, and CSS

- * Understanding of commonly used Software Architectural Styles, Design Tools and Notations, and Object-Oriented Design Patterns
- * Practiced creating UML Diagrams with Rational Rose (Use Case Diagrams, State Diagrams, Class Diagrams)
- * Fluent in English and (oral) Arabic

ACTIVITIES

- * July 2007 – Present, Chaldean and Middle Eastern Social Services, Member and Web Designer (<http://www.c-mss.org/>)
- * January 2006 – September 2007, Club Advisor, Assyrian Chaldean Student Alliance
- * Sports, including: Baseball, Basketball, Soccer, Football, and BMX Freestyle Biking