

Alexander J. Quinn ■ Curriculum Vitae

Research interests	Human-computer interaction, crowdsourcing, human computation, online labor
Education	<p>University of Maryland, College Park Ph.D., Computer Science, August 2014 M.S., Computer Science, June 2009 Topic: Crowdsourcing and human computation for decision support Advisor: Professor Ben Bederson</p> <p>University of Washington, Seattle B.S., with distinction, Computer Science, June 2002</p>
Employment	<p>2014 – present Purdue University, West Lafayette, IN Assistant Professor, School of Electrical & Computer Engineering</p> <p>2006 – present University of Maryland, College Park, MD Graduate Research Assistant / Teaching Assistant</p> <p>Summer 2007 Library of Congress, Washington, DC Software Development Intern</p> <p>2004 – 2006 High School of the University of Hyogo, Hyogo, Japan Assistant Language Teacher, Japan Exchange and Teaching (JET) Programme</p> <p>2003 – 2004 Nordstrom, Inc., Seattle, WA Programmer Analyst, Inventory Systems Division</p> <p>2002 – 2003 University of Washington School of Dentistry, Seattle, WA Research Assistant / Technical Consultant</p> <p>2000 – 2003 OlympusNet, Port Townsend, WA Software Developer (part time)</p> <p>Fall 2000 University of Washington, Computer Science & Engineering, Seattle, WA Spring 2001 Teaching Assistant Fall 2002</p>
Conference and journal papers	<p>Quinn, A. J. & Bederson, B. B. 2014. AskSheet: Efficient Human Computation for Decision Making with Spreadsheets. In <i>Proceedings of ACM Conference on Computer Supported Cooperative Work (CSCW '14)</i>. ACM, New York, NY. 11 pages. [Acceptance rate: 27%]</p> <p>Bonsignore, E., Quinn, A. J., Druin, A., Bederson, B. B. 2013. Sharing stories in “in the wild”: A mobile storytelling case study using StoryKit. <i>ACM Transactions on Computer-Human Interaction (TOCHI)</i>. 20, 3, Article 18 (July 2013), 38 pages.</p> <p>Resnik, P., Buzek, O., Kronrod, Y., Hu, C., Quinn, A. J., Bederson, B. B. 2013. Using Targeted Paraphrasing and Monolingual Crowdsourcing to Improve Translation. <i>ACM Transactions on Intelligent Systems and Technology (TIST)</i>. 4, 3, Article 38 (July 2013). ACM, New York, NY. 21 pages.</p>

Quinn, A. J., Bederson, B. B. 2011. Human computation: a survey and taxonomy of a growing field. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11)*. ACM, New York, NY, USA, 1403-1412. [Acceptance rate: 27%]

Bederson, B. B., **Quinn, A. J.**. 2011. Web workers unite! addressing challenges of online laborers. In *CHI '11 Extended Abstracts on Human Factors in Computing Systems alt.chi (CHI EA '11)*. ACM, New York, NY, USA, 97-106. [Acceptance rate: 59%]

Resnik, P., Buzek, O., Hu, C., Kronrod, Y., **Quinn, A.**, Bederson, B.B. 2010. Improving translation via targeted paraphrasing. In *Proceedings of the 2010 Conference on Empirical Methods in Natural Language Processing (EMNLP '10)*. Association for Computational Linguistics, Stroudsburg, PA, USA, 127-137. [Acceptance rate: 25%]

Druin, A., Bederson, B. B., **Quinn, A.** 2009. Designing intergenerational mobile storytelling. In *Proceedings of the 8th International Conference on Interaction Design and Children (IDC '09)*. ACM, New York, NY, USA, 325-328. [Acceptance rate: 32%]

Bederson, B. B., **Quinn, A.**, and Druin, A. 2009. Designing the reading experience for scanned multi-lingual picture books on mobile phones. In *Proceedings of the 9th ACM/IEEE-CS joint conference on Digital libraries (JCDL '09)*. ACM, New York, NY, USA, 305-308. [Acceptance rate: 29%]

Quinn, A. J., Hu, C., Arisaka, T., Rose, A., Bederson, B., B 2008. Readability of scanned books in digital libraries. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '08)*. ACM, New York, NY, USA, 705-714. [Acceptance rate: 22%]

Wang, T. D., Plaisant, C., **Quinn, A. J.**, Stanchak, R., Murphy, S., Shneiderman, B. 2008. Aligning temporal data by sentinel events: discovering patterns in electronic health records. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '08)*. ACM, New York, NY, USA, 457-466. [Acceptance rate: 22%]

Quinn, A. 2002. An Interrogative Approach to Novice Programming. In *Proceedings of the IEEE 2002 Symposia on Human Centric Computing Languages and Environments (HCC'02)*. IEEE Computer Society, Washington, DC, USA, 83-85.

Workshop papers

Bederson, B.B., **Quinn, A.J.**, & Rose, A. 2012. SearchParty: Learning to Search in a Web- based Classroom. In *Proceedings of Educational Interfaces, Software, and Technology (EIST 2012) workshop*, May 2012, ACM, New York, NY.

Dingels, E., Fraser, T., **Quinn, A.** 2007. Generating Java Unit Tests with AI Planning. In *Workshop on Empirical Assessment of Software Engineering Languages and Technologies (ASE 2007)*, Atlanta, GA.

Software deployments

Restaurant food safety inspections (web site), June 2013

Summary: web-scraped inspection reports from >60 health departments throughout the US

Process: developed architecture and fully-documented API for web scrapers

Supervisors: Professor Ginger Zhe, Professor Phillip Leslie, Professor Ben Bederson

Role: lead developer

Impact: used by economics researchers to analyze effects of public disclosure

A Breath of Spring – Smithsonian Institution Sackler Gallery, May 2011

Summary: tabletop application to view (slide) a 14th century Chinese calligraphy scroll

Process: worked with curators to develop annotations and respectful presentation

Supervisors: Professor Neil Fraistat and Dave Lester

Role: sole developer

Impact: publically deployed in the museum for over 2 years (5/2011 to 10/2013)

Haft Awrang – Smithsonian Institution, Sackler Gallery, May 2011

Summary: tabletop application to view a 15th century painted Persian manuscript

Process: (same as above)

Supervisors: (same as above)

Role: (same as above)

Impact: (same as above)

StoryKit - iOS App Store, September 2009

Summary: mobile application for allowing children to create and share electronic storybooks

Process: designed in collaboration with child and elderly (grandparent) design partners

Supervisors: Professor Allison Druin and Professor Ben Bederson

Role: sole developer

Impact: >187,000 unique users, 1000-6000 uses per day, publications in ToCHI and IDC

World Digital Library – World Digital Library, Summer 2007

Summary: digital library operated by UNESCO and the Library of Congress

Process: \$3 million effort resulting in the initial “prototype” of the site

Supervisors: Michelle Rago and Dr. John Van Oudenaren

Role: designed the temporal dynamic query interface that is used on the landing page

Impact: publically deployed (and still active); presented at FOSS4G '07 conference

CookiePanel, Firefox extension, 2001-2002

Summary: Firefox browser extension to add a sidebar that displays cookies in real-time

Process: extension of earlier work on designing for informed consent online

Supervisor: Professor Batya Friedman

Role: continued development (initially created by Dr. Dan Howe)

Impact: publically deployed on Mozilla extension site and used in the wild

Professional
service

Program committee

ACM Human Factors in Computing Systems (CHI), work-in-progress, 2013

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IEEE SocialCom, Social Media for Human Computation workshop, 2012

ACM WWW, CrowdSearch workshop, 2012

Reviewer

ACM Computer Supported Cooperative Work (CSCW), 2013-2014

ACM Human Factors in Computing Systems (CHI), 2009, 2011-2014

ACM Transactions on Intelligent Systems and Technology (TIST), 2012

Human Computation Workshop at AAI (HCOMP), 2012

IEEE Internet Computing 2012

Journal of the American Society for Information Science and Technology (JASIST), 2012

Editorial

CrowdResearch.org blog, member of editorial team, 2011-present

Student volunteer

ACM Human Factors in Computing Systems (CHI), 2009

ACM Human Factors in Computing Systems (CHI), 2010

Teaching

Advanced C Programming, instructor, Purdue University, Fall 2014

Human-Computer Interaction, teaching assistant, University of Maryland, Spring 2008

Role: grading projects and homework, office hours

Topics: design methodologies, HCI-related cognitive psychology, graphic design, ethics

Instructor: Professor Ben Bederson

Human-Computer Interaction, teaching assistant, University of Maryland, Fall 2007

Role: (same as Spring 2008)

Topics: (same as Spring 2008)

Instructor: Professor François Guimbretière

English Language, High School of the University of Hyogo, Japan, 2004-2006

Role: Co-taught in a public high school as part of Japan's national JET Programme

Topics: English communication, pronunciation, grammar

Instructors: T. Muneyasu, H. Yokomaku, K. Shimizu, T. Yokoyama, M. Katei, M. Terauchi

Operating Systems, teaching assistant, University of Washington, Fall 2002

Role: taught regular sections, office hours, managed/created projects

Topics: memory, synchronization, file systems, security, processes, threads

Instructor: Professor Gary Kimura.

Computer Programming II, teaching assistant, University of Washington, Spring 2001

Role: teaching regular sections, office hours, grading homework and exams

Topics: object oriented programming in C++, data structures, computational complexity

Instructor: Hal Perkins

Computer Programming I, teaching assistant, University of Washington, Fall 2000

Role: teaching regular sections, office hours, grading homework and exams

Topics: programming in C

Instructor: Dr. Martin Dickey

Guest lectures

Querying crowds, University of Pennsylvania, for Professor Chris Callison-Burch, graduate crowdsourcing course, Fall 2013

Human computation, Johns Hopkins University, for Professor Chris Callison-Burch, undergraduate crowdsourcing course, Spring 2013

Using Mechanical Turk, University of Maryland, for Professor Ben Bederson, graduate social computing course, Fall 2011

Computing ethics, University of Washington, for Professor Steven Tanimoto, undergraduate programming languages course, Winter 2001

Talks

Quinn, A.J., Bederson, B. 2013. Crisp Answers to Fuzzy Questions: Design lessons for crowdsourcing decision inputs. Human-Computer Interaction Lab, Annual Symposium, University of Maryland. May 22, 2013.

Quinn, A.J., Bederson, B. 2012. AskSheet: Frugal Crowdsourcing for Decision Support. Human-Computer Interaction Lab, Annual Symposium, University of Maryland. May 22, 2012.

Quinn, A.J., Yeh, T., Bederson, B. 2011. AppSheet: Crowdsourcing Decision Support Efficiently. Human-Computer Interaction Lab, Annual Symposium, University of Maryland. May 25, 2011.

Quinn, A.J., Bederson, B., Yeh, T., Lin, J. 2010. CrowdFlow: Integrating Machine Learning with Mechanical Turk for Speed-Cost-Quality Flexibility. Human-Computer Interaction Lab, Annual Symposium, University of Maryland. May 27, 2010.

Quinn, A.J., et al. 2009. Intergenerational Stories on iPhones. Human-Computer Interaction Lab, Annual Symposium, University of Maryland. May 28, 2009.

Quinn, A.J., Hu, C., Arisaka, T., Rose, A., Bederson, B. 2008. Improving the Reading Experience in the International Children's Digital Library. Human-Computer Interaction Lab, Annual Symposium, University of Maryland. May 29, 2008.

Quinn, A.J. 2007. World Digital Library: Designing a Multi-lingual Geographic Search Interface. Free and Open Source Software for Geospatial (FOSS4G '07). September 26, 2007.

Tutorial

Crowdsourcing with Amazon Mechanical Turk, University of Maryland, Human-Computer Interaction Lab Annual Symposium, with Tom Yeh, 2011.

Industry
experience

Nordstrom, Inc., programmer analyst, 2003-2004
Created and maintained business intelligence applications for the company's inventory management and merchandising decision processes.

University of Washington School of Dentistry, technical consultant, 2002
Set up experimental apparatus, developed tools, and helped with experiment design for an orthodontics study that used computer psychometrics to measure subjects' perceptions about different facial shapes (e.g. convex, concave, etc.). The project was directed by Professor H. Asuman Kiyak.

OlympusNet, developer, 2000-2003
Developed desktop and server applications for a regional internet service provider.