

Julie R. Williamson

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Education

2012 (*Defended-
Award Expected
June 2012*)

Ph.D. in Computing Science

University of Glasgow, Glasgow, UK.

Thesis: User Experience, Performance, and Social Acceptability: Usable Multimodal Mobile Interaction

Advisor: Professor Stephen Brewster

2008

B.S. Cum Laude in Informatics

University of California, Irvine, Irvine, USA.

GPA: 3.72 on a 4 point scale

Advisor: Professor Paul Dourish

Honours, Awards, and Funding

2011

Bupa Foundation Phillip Poole-Wilson Seed Corn Fund £19956

This funding was secured for the Starfish Project, a mobile health and wellbeing application for increasing physical activity for older adults. I participated in securing this funding as a co-applicant on the proposal.

2010

HP Labs India Research Collaboration \$5000

This award was given to participate in an ongoing collaboration between the University of Glasgow and HP Labs in Bangalore. The project investigates the use of multimodal mobile interactions in different cultural settings.

- 2010** **Google Anita Borg Finalist: Europe, the Middle East and Africa**
This award is given to women in computing science for their outstanding dedication to the field, leadership, and academic performance.
- 2009** **Nokia Research Center University Donation €10000**
This proposal, which I co-wrote, was awarded to support work investigating the social acceptability of gesture and speech based mobile interfaces.
- 2008** **National Science Foundation Graduate Research Fellowship**
This prestigious fellowship is awarded to promising graduate students based on their previous research contributions, letters of recommendation, and potential to contribute to the research community in their field.
- 2008** **Phi Beta Kappa**
Membership into this honours society is by invitation only and is based on the demonstration of dedication to excellence in an undergraduate course of study.
- 2006** **Information and Computer Science Honours Program**
Acceptance to this program for undergraduate students is based on academic achievement and research potential. Program includes a minimum of one year of research activity advised by a faculty member.

Research and Teaching Experience

HP Labs Bangalore

This project in collaboration with HP Labs in Bangalore looked at social acceptability in different cultural settings. The goal of this work was to better understand the motivations that users have in accepting or rejecting multimodal interactions, their resulting behaviours, and the comparable similarities or differences between different cultures. The fieldwork completed includes surveys, interviews, focus groups, and longitudinal studies.

Course Tutor

University of Glasgow

As a tutor for the first year computing science course, my responsibilities include running tutorial and lab sessions, marking coursework, and acting as a source of help for students. Subjects in this course include introduction to the Python programming language, basics of human computer interaction, and introduction to databases.

PhD Student Researcher

University of Glasgow

Working with Professor Stephen Brewster, this research investigates the ways that multimodal interfaces might be used in mobile settings and how social factors might influence the acceptance of these interfaces. By evaluating for social acceptability, we hope to provide a framework for designers when creating these interfaces. This research looks at gesture, speech, and tactile based interfaces through a variety of methods including surveys, focus groups, user studies, and longitudinal studies.

Information and Computing Science Honours Program Participant

University of California, Irvine

Over the course of two years, I worked on two projects supervised by Professor Paul Dourish. First, the RhythIMs project included using data about temporal patterns of Instant Messenger usage in an interactive/ambient display. My responsibilities in this project included web interface implementation and work with Bluetooth devices as sensors for the interactive display. Second, the Mopix project was a mobile application that allowed users to upload photos taken on a mobile phone to public displays that created visualizations of the uploaded photos. My responsibilities included server side and mobile interface implementation as well as deployment of devices and displays for the user study.

CRA-W Distributed Mentor Project Participant

University of Minnesota, Twin Cities

The CRA-W is an organization that seeks to increase the number of women participating in computer science and technology research. The CRA-W distributed mentor program is an opportunity for undergraduate women in computing science to visit a new university and work on summer research projects with a mentor. My research project involved using a large, 3D display and a virtual space to visualize the gap between system level design and implementation level design. The project involved using a virtual scale of abstraction that displayed varying diagrams based on the user's position in the virtual space. My responsibilities included creating a project idea and plan, implementing the application, and running user studies using that application.

Transferrable Skills

Technical Skills - I have substantial experience programming for mobile devices, working with Symbian in Python and Android in Java. I have developed applications for user studies and longitudinal deployments on mobile devices.

I also have substantial experience with other programming languages, and can program in Python, Ruby on Rails, Java, HTML and Javascript. I also have substantial experience with databases and SQL and have tutored undergraduate courses in Python.

Qualitative Data Analysis - I have extensive experience completing qualitative research, with excellent interviewing skills and substantial experience designing and conducting focus groups. I also have experience working with users from a wide variety of backgrounds, including users from a wide variety of age groups, different cultural backgrounds, and different working environments.

Quantitative Data Analysis - I have substantial experience working with quantitative data, designing and administering surveys and questionnaires, and gathering quantitative data during user studies. In particular, I have experience with non-parametric data and non-parametric statistical analysis.

Written and Oral Skills - I have excellent writing and oral skills, with a good history of publications in top tier conferences and oral presentation experience in a variety of settings, including conference presentations, academic research presentations, and presentations at industrial research labs.

Service Activities

TEI 2011 Web Chair	As one of the TEI 2011 Web Chairs, I help to manage to TEI web presence.
SICSA PhD Conference Committee	As the student chair of the SICSA PhD Conference, it is my responsibility to oversee the organization of the conference and provide support and guidance to my fellow committee members.
Glasgow Interactive Systems Group Convener	This role involves the organization and running of weekly research seminars for the HCI group at Glasgow University.
Reviewer	CHI 2010 - 2012, MobileHCI 2010 -2011, DIS 2010 - 2012, TEI 2011, ICMI 2010 - 2011, and CSCW 2011.
Student Volunteer	MobileHCI 2009, Ubicomp 2010.

Publications

Williamson, J. R., Crossan, A., Brewster, S. Multimodal Mobile Interactions: Usability Studies in Real World Settings. To appear and Proceedings of ICMI 2011 (Alicante, Spain).

Williamson, J. R. *Send Me Bubbles: Multimodal Performance and Social Acceptability*. In Extended Abstracts (Student Research Competition) of ACM CHI 2011 (Vancouver, Canada). ACM Press.

Hansen, L. K., **Rico, J.**, Jacucci, G., Brewster, S., and Ashbrook, D. *Performative Interactions in Public Spaces*. To Appear in Extended Abstracts (Workshops) of ACM CHI 2011 (Vancouver, Canada).

Rico, J., Crossan, A., and Brewster, S.A. Practical Applications of Gestures in Real World Mobile Settings. To appear in England, D. (Ed.), *Whole Body Interaction*. Springer (2011).

Rico, J., and Brewster, S.A. *Gesture and Voice Prototyping for Early Evaluations of Social Acceptability in Multimodal Interfaces*. In Proceedings of ICMI 2010 (Beijing, China). ACM Press.

Rico, J., Jacucci, G., Reeves, S., Hansen, L., and Brewster, S. Designing for Performative Interactions in Public Spaces. In Proceedings (Workshops) of Ubicomp 2010. ACM Press.

Rico, J. and Brewster, S.A. *Usable Gestures for Mobile Interfaces: Evaluating Social Acceptability*. In Proceedings of ACM CHI 2010 (Atlanta, GA, USA), ACM Press Addison--Wesley, pp 887--896.

Rico, J. *Evaluating the Social Acceptability of Multimodal Mobile Interactions*. In Extended Abstracts (Doctoral Consortium) of ACM CHI 2010 (Atlanta, USA), ACM Press Addison--Wesley.

Rico, J. and Brewster, S.A. *Gestures all around us: differences in social acceptability perceptions of gesture based interfaces*. In Proceedings of MobileHCI 2009 (Bonn, DE). ACM Press.

Brewster, S.A., Murray--Smith, R., Crossan, A., Vazquez--Alvarez, Y. and **Rico, J.** *The GAIME project: Gestural and Auditory Interactions for Mobile Environments*. Whole Body Interaction Workshop, ACM CHI 2009 (Boston, USA).

Brewster, S.A., Murray--Smith, R., Crossan, A., Vazquez--Alvarez, Y. and **Rico, J.** *Multimodal interactions for expressive interfaces*. In Proceedings of EISE'09 (London, UK). British Computing Society.