Alexandra **To**

PhD Student · Human-Computer Interaction

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Education

Carnegie Mellon University
Pittsburgh, PA

PhD in Human-Computer Interaction — *Aug. 2015 - PRESENT*

- Human Computer Interaction Institute | School of Computer Science
- **Advisors:** Dr. Jessica Hammer and Dr. Geoff Kaufman

Stanford University
Stanford, CA

M.S. in Symbolic Systems — *Jun. 2014 - Jun. 2015*

- Symbolic Systems Program | School of Humanities and Sciences
- **Advisor:** Dr. Michael Bernstein

Stanford University
Stanford, CA

B.S. in Symbolic Systems — *Sept. 2010 - Jun. 2014*

- Symbolic Systems Program | School of Humanities and Sciences
- Minor: Asian American Studies
- **Advisor:** Dr. Michael Bernstein

Honors & Awards

2017 **Best Paper Award**, ACM CHI 2017 (top 1%)
University/Post-Secondary Student Honorable Mention, Carnegie Science Awards

2016 **Best Student Non-Digital Game, "Outbreak"**, Meaningful Play 2016
People's Choice Game, "Outbreak", Meaningful Play 2016
Graduate Student Assembly/Provost Conference Funds, Carnegie Mellon University

2014 **Best Paper Award**, ACM UIST 2014
B.S. Conferred with Honors, Stanford University

Peer-Reviewed Publications

8. **To, A.**, Holmes, J., Fath, E., Zhang, E., Kaufman, G., Hammer, J. (2017). Modeling and Designing for Key Elements of Curiosity: Risking Failure, Valuing Questions. TO APPEAR In Proc. DiGRA 2017.

7. Valentine, M., Retelny, D., **To, A.**, Rahmati, N., Doshi, T., Kim, M., Fonua, M., Bernstein, M. (2017). Flash Organizations: Crowdsourcing Complex Work by Structuring Crowds as Organizations. In Proc. CHI 2017. **Best Paper Award**

6. **To, A.**, Fath, E., Zhang, E., Ali, S., Kildunne, C., Fan, A., Hammer, J., Kaufman, G. (2016). Tandem Transformational Game Design: A Game Design Process Case Study. In Proc. Meaningful Play 2016.

5. **To, A.**, Fan, A., Kildunne, C., Zhang, E., Kaufman, G., Hammer, J. (2016). Treehouse Dreams: A Game-Based Method for Eliciting Interview Data from Children. In Proc. CHI Play 2016.

4. **To, A.**, Ali, S., Kaufman, G., Hammer, J. (2016). Integrating Curiosity and Uncertainty in Game Design. In Proc. DiGRA/FDG 2016.

3. Nebeling, M., **To, A.**, Guo, A., de Freitas, A., Teevan, J., Dow, S., Bigham, J. (2016). WearWrite: Crowd-Assisted Writing from Smartwatches. In Proc. CHI '16.

2. Retelny, D., Robaszkiewicz, S., **To, A.**, Lasecki, W., Patel, J., Doshi, T., Valentine, M., Bernstein, M. (2014). Expert Crowdsourcing with Flash Teams. In Proc. UIST '14. **Best Paper Award** 🏆

1. Retelny, D., Robaszkiewicz, S., **To, A.**, Bernstein, M. (2013). Enabling Expert Crowdsourcing with Flash Teams. In Proc. CrowdConf 2013.

Other Publications

4. Nebeling, M., **To, A.**, Guo, A., de Freitas, A., Teevan, J., Dow, S., Bigham, J. 2016. WearWrite: Crowd-Assisted Writing from Smartwatches. In Proc. CHI '16 Productivity Decomposed Workshop.

3. Nebeling, M., Guo, A., **To, A.**, Dow, S., Teevan, J., Bigham, J. 2015. WearWrite: Orchestrating the Crowd to Complete Complex Tasks from Wearables. In Proc. UIST '15 Demos.

2. **To, A.**. 2015. Experts On Demand: Enabling Flash Organizations with Rapid Onboarding. Masters Thesis, Symbolic Systems Program. Readers: Michael Bernstein, Melissa Valentine

1. **To, A.**. 2014. Foundry: Managing Teams of Experts Online. Senior Honors Thesis, Symbolic Systems Program. Readers: Michael Bernstein, Daniela Retelny

Research Experience

Sensing Curiosity in Play and Responding (SCIPR)
Pittsburgh, PA

Carnegie Mellon University HCII — *Aug. 2015 - PRESENT*

- **Advisors:** Jessica Hammer and Geoff Kaufman
- Designing, and researching game-based interventions for marginalized science identity middle school students

WearWrite
Pittsburgh, PA

Carnegie Mellon University HCII — *July. 2015 - Sept. 2015*

- With: Steven Dow, Jeff Bigham, Michael Nebeling
- Exploring shepherding the crowd through a smart watch. Contributed development to front end interface, designed lab protocol, running the study, and writing paper publication.

Flash Organizations
Stanford, CA

Stanford University HCI Group — *Jun. 2014 - Jun. 2015*

- With: Michael Bernstein, Daniela Retelny, Negar Rahmati, Tulsee Doshi
- Scaling up the team capabilities of the expert crowd. Combining HCI and organizational behavior research to examine how the online expert crowd can come together like an org. More work developing our online platform, Foundry, as well as developing and testing of theoretical framework.

Chinese Railroad Workers in North America Project
Stanford, CA

Stanford University Asian American Studies — *Sept. 2013 - Dec. 2013*

- With: Gordon Chang
- Mining America's Historical archive newspapers for information searching specficially for anything that references Chinese railroad workers to compile and attempt to learn more about these individuals.

Flash Teams
Stanford, CA

Stanford University HCI Group — *Jun. 2013 - Sept. 2013*

- With: Michael Bernstein, Daniela Retelny, Sébastien Robaszkiewicz
- Creating lightweight modular team structures to guide teams of expert crowd workers. Developed an online platform, Foundry, for the authorship and run-time coordination of these teams.

MLK Jr. Digital History

Stanford, CA

Stanford University Symbolic Systems Program *Jun. 2012 - Sept. 2012*

- With: Todd Davies, Clay Carson
- Work jointly with the Symbolic Systems Program and the Martin Luther King Jr. Institute. Designing a collaborative history online platform to engage a wide audience with digital history as well as designing research studies.

Teaching Experience

Teaching Assistant, Navigating Race and Identity in America (85-357)

Psychology Department at Carnegie Mellon University *2017*

Responsibilities: Contributed to syllabus design; Write and grade weekly reading quizzes; Grade weekly reading responses; Teaching two lectures and guiding discussions on identity and adolescence;

Teaching Assistant, Minds and Machines (SymSys 100)

Symbolic Systems Program at Stanford University *2014*

Responsibilities: Lead discussion section of the class covering topics including: cognitive science, philosophy of mind, computation, and decision making; Designed several sections' curriculum; Wrote homework and exam essay questions; Held office hours and graded assignments;

Course Assistant, Human-Computer Interaction Seminar (CS 547)

Computer Science Department at Stanford University *2014*

Responsibilities: Organize seminar; Manage schedule for speaker to visit with faculty and students; Manage a script that records attendance; Curate videos of seminar;

Work Experience

Residential Computer Consultant

Residential Computing at Stanford University *2013-2015*

Aided residents on campus with technology issues including common hardware and software failures and Internet connection. Managed residential computing cluster machines. Hosted technology-based events aimed at increasing comfort with technology and for social bonding in residence.

Head Student Advisor

Bing Overseas Study Program at Stanford University *2013-2015*

Managed a team of 25 student advisors for 12 study abroad programs. Organized outreach events in all freshman dorms as well as engineering and athlete programs, coordinated student advisors, put together promotional materials. This role was created specifically for me after my first year as a student advisor.

Student Advisor - Beijing

Bing Overseas Study Program at Stanford University *2012-2013*

Consulted with and advised undergraduates interested in studying abroad in Beijing, China. Organized outreach events to recruit potential study abroad students and hosted office hours for frequently asked questions about the program and applications to the program.

Leadership & Training

I have managed and mentored research interns and assistants performing original research work, software development, and game design. In particular, I have managed and collaborated with researchers doing the following specific tasks:

Literature Review
Scheduling & Conducting Lab Studies
Data Coding & Transcription
Quantitative & Qualitative Data Analysis
Paper Writing
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Physical Sensing Technology
Unity Programming
User Interface (UI) Design
Web Development
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Non-Digital Game Design
Playtesting

Presentations

2. In Media Res, Theme Week: Transformative Games
"Tandem Transformational Game Design"

1. Innovation with Impact 2017, Carnegie Mellon University
"Treehouse Dreams: A Game-Based Method for Eliciting Interview Data from Children"

Service

Student Volunteer CHI Play 2016
Paper Reviewer DiGRA/FDG 2016, Creativity & Cognition 2017
Student Game Reviewer CHI 2016

Skills

Programming Javascript, HTML5, CSS, jQuery, Twitter Bootstrap, C/C++
Research Methods Interviewing, Grounded Theory, Controlled Lab Experiments, Think Aloud Study Protocols, Studies with Children, Ethnomethodology, Surveys
User-Centered Design Paper Prototyping, Rapid Iterative Prototyping, UI Wireframing, Heuristic Evaluation, Storyboards, Playtesting, Cognitive Task Analysis, Transformational Game Design, Playtesting

Media

11/2016 **HCII News & Events**, HCII & ETC Student Game Brings Home Best Student Game and People's Choice Award
08/2014 **Stanford News**, Stanford's Symbolic Systems program bridges the gap b/t humanity and technology
08/2014 **Stanford News**, Stanford team looks to take crowdsourcing to a whole new level