

# Patrick Gage Kelley

## PROFILE

me@patrickgage.com Patrick Gage Kelley is seriously enjoying academia, and is now working to  
patrickgage.com become a part of your university. He believes people should actively contribute  
716.417.3926 to their environments. He is rarely satisfied.

## RESEARCH INTERESTS

5551 Beacon Avenue Currently, information design, specifically geared towards educating users about  
Pittsburgh, PA 15217 privacy: on websites, in user preferences, on social networks, through log/audit  
data, while purchasing apps, and with regards to suggested changes to policies.

## EDUCATION

**Carnegie Mellon University** - Pittsburgh, Pennsylvania  
Ph.D. in Computation, Organizations & Society – School of Computer Science  
Masters in Computation, Organization & Society – SCS

**Rochester Institute of Technology** - Rochester, New York  
B.S. Computer Engineering & B.S. Creative Writing and Literature - 2006  
Honors Scholarship :: Presidential Scholarship :: Nathaniel Rochester Scholar

## EXPERIENCE

**Intel Labs Seattle/University of Washington CSE** Spring 2011  
In the spring of 2011 I interned at Intel Labs Seattle with Sunny Consolvo (ILS) and David Wetherall (UW) working on the UI/UX of several privacy related applications, including: a sleep sensing project, a browser privacy plugin, and a project explaining mobile application permissions to users.

**Wombat Security Technologies** 2008–Present  
My research at Carnegie Mellon contributed to the creation of the startup company Wombat Security Technologies. I have continued to work as consultant for Wombat, assisting in future development of anti-phishing tools, educational materials, and website design and maintenance.

**National Security Agency** 2004–2005 *cleared TS//SI*

*Knowledge Discovery Sciences Office*

Development work on a tool for separating a document's content from extraneous formatting, part of a larger project for automatic semantic document clustering based on content.

*Laboratory for Physical Sciences at University of Maryland*

Planned a controller update for a Scanning Tunneling Microscope; redesigned, updated, and maintained content of the group's website; and studied Quantum Computing and Quantum Information Science.

## RESEARCH AWARDS

“A Investigation into Facebook Friend Grouping.” Honorable Mention for Best Student Paper at INTERACT 2011 in Lisbon, Portugal.

“A “Nutrition Label” for Privacy” 1st Place, ACM Grand Finals Graduate Student Research Competition. 2010.

Our 2010 Standardizing Privacy Notices paper was selected for inclusion in the Privacy Papers for Policy Makers, Future of Privacy Forum publication.

“Designing A Privacy Label.” 1st Place, ACM SIGCHI Student Research Competition. 2009.

“Designing A Privacy Label.” Honorable Mention, NYU-poly Computer Security Awareness Week - Research Competition. 2009.

“Mitsubishi Electronic Research Lab Sensor Exploration.” With Danny Rashid. Honorary Award, IEEE InfoVis Contest. 2008.

## JOURNAL & CONFERENCE PAPERS

Kelley, P.G., Brewer, R., Mayer, Y., Cranor, L.F., and Sadeh, N. “An Investigation into Facebook Friend Grouping.” *INTERACT* 2011.

Komanduri, S., Shay, R., Kelley, P.G., Mazurek, M.L., Bauer, L., Christin, N., and Cranor, L.F. “Of Passwords and People: Measuring the Effect of Password-Composition Policies.” *CHI* 2011.

Kelley, P.G., Benisch, M., Cranor, L.F., and Sadeh, N. “When Are Users Comfortable Sharing Locations with Advertisers?” *CHI* 2011.

Benisch, M., Kelley, P.G., Sadeh, N., and Cranor, L.F. Capturing location-privacy preferences: quantifying accuracy and user-burden tradeoffs. *PUC* 2010.

Shay, R., Komanduri, S., Kelley, P.G., Leon, P.G., Mazurek, M.L., Bauer, L., Christin, N., Cranor, L.F., and Egelman, S. “Encountering Stronger Password Requirements: User Attitudes and Behaviors.” *SOUPS* 2010.

Toch, E., Cranshaw, J., Hankes Drielsma, P., Tsai, J.Y., Kelley, P.G., Cranor, L., Hong, J., and Sadeh, N. “Empirical Models of Privacy in Location Sharing.” *UBICOMP* 2010.  
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Science and technology multiply around us. To an increasing extent they dictate the languages in which we speak and think.  
Either we use those languages, or we remain mute.

–J.G. Ballard

*last updated december 2011*

## **JOURNAL & CONFERENCE PAPERS** *(continued...)*

Tsai, J., Kelley, P.G., Cranor, L.F., and Sadeh, N. "Location-Sharing Technologies: Privacy Risks and Controls." *I/S* 2010.

Kelley, P.G., Cesca, L.J., Bresee, J., and Cranor, L.F. "Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach." *CHI* 2010.

McDonald, A., Reeder, R., Kelley, P.G., and Cranor, L.F. "A Comparative Study of Online Privacy Policies and Formats." *PETS* 2009.

Kelley, P.G., Bresee, J., Reeder, R., and Cranor, L.F. "Design of A Privacy Label." *SOUPS* 2009.

Tsai, J., Kelley, P.G., Hankes Drielsma, P., Cranor, L.F., Hong, J., and Sadeh, N. "Who's Viewed You? The Impact of Feedback in a Mobile-location System." *Computer Human Interaction (CHI)* 2009.

Ravichandran, R., Benisch, M., Kelley, P.G., and Sadeh, N. "Capturing Social Networking Privacy Preferences: Can Default Policies Help Alleviate Tradeoffs between Expressiveness and User Burden?" *PETS* 2009.

Sadeh, N., Hong, J., Cranor, L., Fette, I., Kelley, P.G., Prabaker, M., and Rao, J. "Understanding and Capturing People's Privacy Policies in a People Finder Application", *Privacy Usability Journal*. Vol. 13, No. 6, August 2009.

DeBartolo, E., Bailey, M., Zaczek, M., Schriefer, T., Kelley, P.G., Ramaswamy, M., and Ryczko, N. "Traveling Engineering Activity Kits - Energy and the Environment." *ASEE Conference*, Honolulu, 2007.

## **WORKSHOP PAPERS**

Kelley, P.G., Consolvo, S., Cranor, L.F., Jung, J., Sadeh, N., Wetherall, D. "A Conundrum of Permissions: Installing Applications on an Android Smartphone." *USEC FC* 2012. Forthcoming

Sadeh, N., and Kelley, P.G. "User-Controllable Location Privacy" *PriMo* 2011.

Kelley, P.G., Tsai, J., Cranor, L.F., and Sadeh, N. "Location-Sharing Technologies: Privacy Risks and Controls." *PriMo* 2011.

Wang, X.S., Choffnes, D., Kelley, P.G., Greenstein, B., and Wetherall, D. "Measuring and Predicting Web Login Safety." *W-MUST* 2011

Kay, M., Choe, E.K., Shepherd, J., Greenstein, B., Consolvo, S., Kelley, P.G., and Kientz, J. "Lullaby: environmental sensing for sleep self-improvement" *Workshop on Personal Informatics, CHI* 2011.

Kelley, P.G., Cesca, L.J., Bresee, J., and Cranor, L.F. "Intentional Privacy Policy Design" *CHI Workshop on Networked Privacy* 2011.  
*(continued...)*

## **WORKSHOP PAPERS** *(continued...)*

Balebako, R., Leon, P., Almuhiemedi, H., Kelley, P.G., Mugan, J., Acquisti, A., Cranor, L.F., and Sadeh, N. "Nudging Users Towards Privacy on Mobile Devices" *CHI PINC* 2011.

Kelley, P.G. "Conducting Usable Privacy & Security Studies with Amazon's Mechanical Turk." *USER* 2010

B. Meeder, J. Tam, P.G. Kelley, and L.F. Cranor. "RT @IWantPrivacy: Widespread Violation of Privacy Settings in the Twitter Social Network" *W2SP* 2010.

Tsai, J., Kelley, P.G., and Cranor, L.F. "The Risk and Benefit Perceptions of Location-Sharing Technologies." *TPRC* 2009.

Kelley, P.G., Hankes Drielsma, P., Sadeh, N., and Cranor L. "User Controllable Learning of Security and Privacy Policies." *AISec* 2008.

Reeder R.W., Kelley, P.G., McDonald, A.M., and Cranor, L.F. "A User Study of the Expandable Grid Applied to P3P Policy Visualization." *Workshop on Privacy in the Electronic Society (WPES)*. 2008.

Prabaker, M., Rao, J., Fette, I., Kelley, P.G., Cranor, L., Hong, J., and Sadeh, N. "Understanding and Capturing People's Privacy Policies in a People Finder Application." *Ubicomp Workshop on Privacy*, Austria, 2007.

## **TEACHING EXPERIENCE**

*Spring 2012 –Carnegie Mellon University*

**Special Topics in Interactive Art and Computational Design**

Teaching Assistant for Golan Levin

*Spring 2012 –Carnegie Mellon University*

**College News: The Process to the Press**

Student-led course developed and taught with Greg Hanneman

*Spring 2010 –Carnegie Mellon University*

**Special Topics in Interactive Art and Computational Design**

Teaching Assistant for Golan Levin

*Spring 2009 –Carnegie Mellon University*

**Mobile and Pervasive Computing Services**

Teaching Assistant for Gregory Kesden and Norman Sadeh

*Fall 2008 –Carnegie Mellon University*

**Privacy Policy, Law, and Technology**

Teaching Assistant for Lorrie Faith Cranor

*Spring 2004 –Rochester Institute of Technology*

**City as Text: Rochester**

Co-taught and developed with Dr. Jessica Lieberman

## **RESEARCH POSTERS** *(selected)*

McDonald, A., Reeder, R., Kelley, P.G., and Cranor, L. "A Comparative Study of Online Privacy Policies and Formats." *Computers, Freedom & Privacy (CFP)* 2009.

Kelley, P.G., Bresee, J., Reeder, R., and Cranor, L. "Design of A Privacy Label." *Computers, Freedom & Privacy (CFP)* 2009.

Tsai, J., Kelley, P.G., Hankes Drielsma, P., Cranor, L., Hong, J., and Sadeh, N. "Who's Viewed You? The Impact of Feedback in a Mobile-location System." *Computers, Freedom & Privacy (CFP)* 2009.

Kelley, P.G., Won, S.S., and Cranor, L.F. "P3P Expandable Grids." *Privacy Mindswap, Center for Computational Thinking, Pittsburgh, PA.* Oct. 2007.

Fette, I., Kelley, P.G., Tomasic, A., and Sadeh, N. "Detecting Phishing Emails Through Machine Learning." *APWG e-Crime Researchers Summit*, Oct. 2007.

## **TECHNICAL REPORTS**

Kelley, P.G., Komanduri, S., Mazurek, M.L., Shay, R., Vidas, T., Bauer, L., Christin, N., Cranor, L.F. "Guess again (and again and again): Measuring password strength by simulating password-cracking algorithms." CMU-CyLab-11-008, October 2011.

Kelley, P.G., Benisch, M., Sadeh, N., and Cranor, L.F. "When are Users Comfortable Sharing Locations with Advertisers?" CMU Tech Report: CMU-CyLab-10-017, October 2010.

Benisch, M., Kelley, P.G., Sadeh, N., and Cranor, L.F. "Capturing Location-Privacy Preferences: Quantifying Accuracy and User-Burden Tradeoffs" CMU Tech Report: CMU-ISR-10-105, March 2010.

Kelley, P.G., Cesca, L., Bresee, J., Cranor, L.F. "Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach." CyLab Tech Report: CMU-CyLab-09-014, November 2009.

Benisch, M., Kelley, P.G., Sadeh, N., Sandholm, T., Cranor, L., Hankes Drielsma, P., and Tsai, J. "The Impact of Expressiveness on the Effectiveness of Privacy Mechanisms for Location Sharing." CMU Tech Report: CMU-ISR-08-141, December 2008.

## ACTIVITIES, ORGANIZATIONS & LEADERSHIP

**The Tartan Newspaper** –*Publisher, Chief Executive Officer, Editorial Board, Senior Staffwriter, Ombudsman, Executive Committee*

I continued my journalistic work at Carnegie Mellon, with their newspaper *The Tartan*. I was appointed to the Editorial Board in 2007. In 2011 I was elected as Publisher of the organization, continuing my work to reform the constitution, create an executive committee, launch an advisory board, update our advertising/business procedures, and work towards our online redesign.

**Natl. Assoc. of Graduate-Professional Students** –*Director of Communications*  
Elected Director of Communications in 2010, for continued work with NAGPS. Re-elected in 2011 to continue efforts in re-branding, social media, and design. NAGPS works to advocate and support graduate students nationally and locally—through best practices, lobbying, and regional and national conferences.

**Graduate Student Assembly** –*President*

Elected for two terms (2008-09) as GSA President, representing and leading the legislative arm of student government supporting CMU's five thousand graduate students. Focused on improving communication, through orientation events, increased representation, and better committee reporting.

**IMPAQT** –*Ambassador to Qatar, Director of Marketing*

Selected to travel to Carnegie Mellon's Doha, Qatar campus as a member of a ten-student group to develop programs and projects to more tightly bind CMU.

**Dossier** –*Editor-in-Chief*

*Dossier*, CMU's Art & Literary Magazine, ceased publication in 2002. With Kristen Lukiewski, re-launched in 2007, as a full-color magazine of student art.

**Dec5** –*Editor of The Guide to Living in Pittsburgh* In 2007

I started the initiative to revitalize *The Guide to Living in Pittsburgh*, a CMU Computer Science publication for over twenty-five years.

**Society for Women Engineers**

–*National Collegiate Leadership Publicity Manager and Leadership Coach*

Became the first male student to sit on a National SWE Committee. Presented at two national conferences in support of the Student Leadership Committee.

**RIT Honors Program** –*Secretary & Constitutional/Steering Committee Chair*

I chaired the Constitutional Committee, that designed the foundation of the Honors Program Student Government. Chaired three other committees and also served as an officer on the Honors Executive Council.

**RIT Leadership Institute (formerly LEAD)** –*Mentor and Advisory Board*

I served as an active member of the RLI Advisory Board, helping to further refine its certification program and served as a mentor at the quarterly retreats.

**Reporter Magazine** –*Online Editor & Staffwriter*

**Signatures Magazine** –*Literary Editor, 2004*

## INVITED PRESENTATIONS & PANELS

“Nudging and Labels: CUPS Privacy” Invited presentation at *GSMA Workshop on Privacy*. London. 2011.

“New Research Tools: Crowdsourcing and Cloud Computing.” Panel at *SOUPS*, Seattle, WA. 2010.

“Research Showcase Highlights.” Panel at *Computers, Freedom, and Privacy*. Washington D.C. 2009.

“Designing Facebook Applications with Privacy.” Invited lecture at Social Web (Hong & Kraut), Pittsburgh, PA. 2008.

“Preparing the Agile Cyberdefender.” Workshop participant and presenter at *Air Force Strategy Session*, Arlington, VA. May 2008.

With A. Ray and E. Graeff. “Veni, Vidi, Wiki?,” *Scholarship @ RIT*, 2005.

“Learning Leadership Styles” Invited presentation at *SWE National Conference*. Anaheim, CA. 2005.

“Developing a Succession Plan,” and “Managing Student Government,” Accepted presentations at *National Collegiate Honors Conference (NCHC)*, New Orleans, LA. 2004.

“Rochester, City as Text,” and “Developing a Student Constitution.” Accepted presentation at *NCHC*, Chicago, IL. 2005.

“Leadership as Exploration” Invited presentation at *SWE National Conference*, Birmingham, AL. 2003.

## EXPERIENCE CONTINUED

### **National Security Agency**

*System Engineering and Project Management*

Development work on a project tasked to monitor an incoming data system. Created a system with a CGI web-interface for Python base-code. Created documentation of security plans/presentations and website for the branch.

### **Special Projects Mentor at RIT 2003–2004**

Designed the first Honors Program Yearbook. Developed the Ambassador Program for outreach. Worked with the director on future planning.

### **Honors & LEAD Mentor at RIT 2002–2003**

Designed a yearly overnight retreat for winter quarter. Focused programming on journaling, reflection. Generated involvement in the Student Advisory Board.

### **Research Assistant, Computer Engineering at RIT 2002**

Led the development of MIST (the Meta Image Software Toolkit) in collaboration with Kodak.