

## Serge Egelman

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### Education

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- **PhD in Computation, Organizations, and Society**, May 2009  
School of Computer Science, Carnegie Mellon University
- **BS in Computer Engineering**, May 2004  
School of Engineering and Applied Science, University of Virginia

### Refereed Journal Publications

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- [The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study](#). Information Systems Research (ISR), 22(2), June 2011, pp. 254-268 (with J. Tsai, L. Cranor, and A. Acquisti).
- [P3P Deployment on Websites](#). Electronic Commerce Research and Applications (ECRA), Autumn 2008 (with L. Cranor, S. Sheng, A. McDonald, and A. Chowdhury).
- [The Real ID Act: Fixing Identity Documents with Duct Tape](#). I/S: A Journal of Law and Policy for the Information Society, 2(1), Winter 2006, pp. 149-183 (with L. Cranor).

### Refereed Conference Papers

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- [Oops, I Did It Again: Mitigating Repeated Access Control Errors on Facebook](#). CHI '11: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. 2011 (with A. Oates and S. Krishnamurthi).
- [Of Passwords and People: Measuring the Effect of Password-Composition Policies](#). CHI '11: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (Best Paper Nominee). 2011 (with S. Komanduri, R. Shay, P. G. Kelley, M. Mazurek, L. Bauer, N. Christin, and L. F. Cranor).
- [It's All About The Benjamins: An empirical study on incentivizing users to ignore security advice](#). Financial Cryptography and Data Security. 2011 (with N. Christin, T. Vidas, and J. Grossklags).
- [Crying Wolf: An Empirical Study of SSL Warning Effectiveness](#). The 18th USENIX Security Symposium. 2009 (with J. Sunshine, H. Almuhammedi, N. Atri, and L. Cranor).
- [It's No Secret: Measuring the reliability of authentication via 'secret' questions](#). The 2009 IEEE Symposium on Security and Privacy (with S. Schechter and A.J. Brush).
- [It's Not What You Know, But Who You Know: A social approach to last-resort authentication](#). CHI '09: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. 2009 (with S. Schechter and R. Reeder).
- [Timing Is Everything? The Effects of Timing and Placement of Online Privacy Indicators](#). CHI '09: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. 2009 (with J. Tsai, L. Cranor, and A. Acquisti).
- [Family Accounts: A new paradigm for user accounts within the home environment](#). CSCW '08: Proceedings of the 2008 Conference on Computer Supported Cooperative Work. 2008 (with A.J. Brush and K. Inkpen).
- [You've Been Warned: An Empirical Study on the Effectiveness of Web Browser Phishing Warnings](#). CHI '08: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (Best Paper Nominee). 2008 (with L. Cranor and J. Hong).
- [Phinding Phish: An Evaluation of Anti-Phishing Toolbars](#). NDSS: Proceedings of the ISOC Symposium on Network and Distributed System Security. February 2007 (with Y. Zhang, L. Cranor, and J. Hong).
- [An Analysis of P3P-Enabled Web Sites among Top-20 Search Results](#). Proceedings of the Eighth International Conference on Electronic Commerce. August 2006 (with L. Cranor and A. Chowdhury).
- [Power Strips, Prophylactics, and Privacy, Oh My!](#). Proceedings of the 2006 Symposium On Usable Privacy and Security (SOUPS). July 2006 (with J. Gideon, L. Cranor, and A. Acquisti).

### Refereed Workshop Papers

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- [Toward Privacy Standards Based on Empirical Studies](#). W3C Workshop on Web Tracking and User Privacy. April 2011 (with E. McCallister).
- [Please Continue to Hold: An empirical study on user tolerance of security delays](#). Workshop on the Economics of Information Security (WEIS). June 2010 (with D. Molnar, N. Christin, A. Acquisti, C. Herley, and S. Krishnamurthi).
- [Tell Me Lies: A Methodology for Scientifically Rigorous Security User Studies](#). Workshop on Studying Online Behaviour at CHI'10. April 2010 (with J. Tsai and L. F. Cranor).
- [The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study](#). Workshop on the Economics of Information Security (WEIS). June 2007 (with J. Tsai, L. Cranor, and A. Acquisti).
- [Security User Studies: Methodologies and Best Practices](#). CHI '07 Extended Abstracts on Human Factors in Computing Systems. April 2007 (with J. King, R. Miller, N. Ragouzis, and E. Shehan).
- [Studying The Impact of Privacy Information on Online Purchase Decisions](#). Workshop on Privacy and HCI: Methodologies for Studying Privacy Issues at CHI'06. April 2006 (with J. Tsai, L. Cranor, and A. Acquisti).

### Book Chapters and Magazine Articles

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- [Conference Report: SOUPS 2006](#). *IEEE Security & Privacy*. November/December 2006 (with J. Tsai).
- [Conference Report: 14th USENIX Security Symposium](#). ;login:. December 2005 (with K. Butler, M. Chow, J. Duerig, B. Hicks, F. Hsu, S. Kelm, and M. Rajagopalan).
- [Conference Report: 13th USENIX Security Symposium](#). ;login:. December 2004 (with A. AuYoung, E. Cronin, M. Dougherty, R. Greenstadt, S. Kelm, Z. Liang, C. Mano, N. Smith, A. Raniwala, T. Whalen, and W. Xu).
- [Suing Spammers for Fun and Profit](#). ;login:. April 2004.
- Installation. [Peter Norton's Complete Guide to Linux](#). Macmillan Computer Publishing. 1999.
- User Administration. [Peter Norton's Complete Guide to Linux](#). Macmillan Computer Publishing. 1999.

## Research Experience

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### Postdoctoral Research Associate

*University of California, Berkeley*

September 2011-present

I am currently working with David Wagner's research group to examine privacy and security issues on mobile devices (e.g., smartphones). Specifically, we are examining how users make decisions to install particular applications and how to better alert them to potential malware. We are in the process of creating a new architecture for prompting users when an application requests certain hardware or software abilities.

### Scientist

*NIST*

August 2010-July 2011

I helped design and conduct studies to examine how users interact with authentication systems, specifically password and token-based systems. I co-organized a workshop on the NIST campus to discuss ways in which usable security research and techniques could be formally integrated into the development process, as well as reviewed grant proposals for NIST funding.

### Postdoctoral Research Associate

*Brown University*

August 2009-August 2010

I worked with Shriram Krishnamurthi on creating better interfaces for policy authors to specify access control policies. We conducted studies to determine common policy errors, the causes of these errors, and the types of interfaces that policy authors currently use. We developed a new policy authoring interface that allows users of social networking websites to interactively specify policies in order to more easily detect and clarify ambiguities. We designed and conducted a usability study to validate our tool.

### Research Assistant

*Carnegie Mellon University*

June 2004-May 2009

While pursuing a PhD under the direction of Dr. Lorrie Cranor in the Computation, Organizations, and Society program at CMU, I focused primarily on the usability of privacy and security systems. Areas that I worked in included creating more effective web browser trust indicators, creating usable privacy tools, Internet anonymity, and detection and prevention of phishing attacks. My dissertation is entitled "Trust Me: Designing Trustworthy Trust Indicators." My committee consisted of Lorrie Cranor (chair), Jim Herbsleb, Jason Hong, and Steve Bellovin (Columbia University).

### Research Intern

*Microsoft Research*

July 2008-October 2008

During my second internship at MSR, I conducted two user studies with Stuart Schechter. We first looked at using social networks as a means for authenticating webmail users who had forgotten their passwords. We tested the usability of our system as well as how susceptible it would be to various attacks. Additionally, I assisted the Internet Explorer team with new designs for their security warnings based on my research. We tested the new warnings in the laboratory using an eye tracker.

### Research Intern

*Microsoft Research*

January 2008-April 2008

I was an intern at MSR working with A.J. Brush and Kori Inkpen on user account models for shared family computers. We examined why the current user account model does not work on computers shared by trusted individuals (i.e. communal home computers) and developed a more appropriate model. I implemented our prototype in C# and ran a usability study. This work was published at the 2008 Computer Supported Cooperative Work (CSCW) conference.

### Research Intern

*Xerox PARC*

June 2006-September 2006

During the summer of 2006, I worked with Jim Thornton in the Computer Science Lab (CSL) at PARC. My main focus was on malware detection using virtualization. The project involved creating a Windows kernel driver that would intercept system calls (like a rootkit) on the guest operating system, and then reporting back the state of the guest to the host. Additional work focused on writing security mechanisms to protect code running under a virtual machine.

## Professional Experience

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### Developer

*Tovaris: The Digital Identity Company*

2000-2001

I worked part time doing development in C++ for the Mithril Secure Server (an encrypted email solution). I mostly wrote

CGI code for administering the servers from a front-end, although I did do some work on the back-end. This involved getting very familiar with the OpenSSL libraries. Most of the development was done under OpenBSD, using C++, though I also did some work in Perl.

#### **Technical Support / Developer / System Administrator**

*Broadband Network Services, Inc.*  
1999-2000

I handled all of the technical support questions via telephone and e-mail. I maintained and administrated all of our databases using MySQL. This included setting up new database customers, adding and removing databases, and maintaining MySQL. I used PHP, Perl, and bash to write scripts to aid in system administration and to automate other common tasks. I handled most of the website development that we were hired to do; this included writing scripts, HTML, and database management. My administrative responsibilities included maintaining our primary and secondary DNS, Sendmail, Apache, and PHP. I also aided in creating and removing accounts, setting up new virtual hosts, setting up and maintaining network monitoring, and maintaining hardware; this included building and configuring computers.

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### **Teaching Experience**

#### **Information Security & Privacy (46-861)**

*Carnegie Mellon University*  
Fall 2007

Teaching assistant duties included developing course materials (topics for lectures, assignments, and exams), grading assignments and exams, holding office hours, and mentoring students about semester-long projects.

#### **Computers and Society (15-290)**

*Carnegie Mellon University*  
Spring 2006

Teaching assistant duties included giving guest lectures, creating assignments and exams, grading assignments and exams, holding office hours, and mentoring students about semester-long projects.

#### **Information Security (CS 451)**

*University of Virginia*  
Fall 2004

Teaching assistant duties included giving guest lectures, creating assignments and exams, grading assignments and exams, and holding office hours.

#### **Advanced Software Development Methods (CS 340)**

*University of Virginia*  
Spring 2003, Spring 2004

Teaching assistant duties included grading assignments and exams, and holding office hours.

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### **Research Grants**

- Google Faculty Research Award, *Designing Usable Certificate Dialogs in Chrome*. Principal Investigator, 2010. Budget: \$60,000.

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### **Professional Activities**

- **Program Committees**  
2012: Symposium On Usable Privacy and Security (SOUPS); New Security Paradigms Workshop (NSPW)  
2011: Symposium On Usable Privacy and Security (SOUPS); New Security Paradigms Workshop (NSPW); Computers, Freedom, and Privacy (CFP) Conference (poster session co-chair); Software and Usable Security Aligned for Good Engineering (SAUSAGE) Workshop (co-chair)  
2010: Symposium On Usable Privacy and Security (SOUPS)  
2008: Conference on Information and Knowledge Management (CIKM)  
2007: CHI 2007 Workshop - Security User Studies: Methodologies and Best Practices; Anti-Phishing Working Group eCrime Researchers Summit (poster session co-chair)  
2006: Computers, Freedom, and Privacy (CFP) Conference
- **Standards Committees**  
2007-2008: W3C Web Security Context (WSC) Working Group  
2004-2006: W3C Platform for Privacy Preferences (P3P) 1.1 Working Group
- **Leadership Roles**  
*Legislative Concerns Chair, Board of Directors*  
National Association of Graduate and Professional Students (NAGPS), 2006-2008  
*Vice President for External Affairs*  
Carnegie Mellon Graduate Student Assembly, 2006-2008

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### **Awards and Nominations**

- **CHI Best Paper Nominee, 2011**  
*Of Passwords and People: Measuring the Effect of Password-Composition Policies*, received an honorable mention at CHI 2011 (with S. Komanduri, R. Shay, P. G. Kelley, M. Mazurek, L. Bauer, N. Christin, and L. F. Cranor).
- **CHI Best Paper Nominee, 2008**  
*You've Been Warned: An Empirical Study on the Effectiveness of Web Browser Phishing Warnings*, received an honorable mention at CHI 2008 (with L. Cranor and J. Hong).
- **Tor Graphical User Interface Design Competition, 2006**

Phase 1 Overall Winner (with L. Cranor, J. Hong, P. Kumaraguru, C. Kuo, S. Romanosky, J. Tsai, and K. Vaniea).

- **University of Virginia Dean's List of Scholars**

I was included on the Spring 2003 and 2004 Dean's List of Scholars.

- **Publisher's Clearing House Finalist**

I *may* already be a winner.

Last modified January 2012.