

LORRIE FAITH CRANOR

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EDUCATION

Doctor of Science in Engineering and Policy, Washington University, 1996
Master of Science in Computer Science, Washington University, 1996
Master of Science in Technology and Human Affairs, Washington University, 1993
Bachelor of Science in Engineering and Public Policy, Washington University, 1992

EMPLOYMENT

Professor, Carnegie Mellon University, Pittsburgh, PA, July 2014 to present
Institute for Software Research, School of Computer Science
Engineering & Public Policy Department, College of Engineering

- Co-Director, MSIT-Privacy Engineering masters program
- Director, CyLab Usable Privacy and Security Laboratory
- Consulting faculty, MSIT in eBusiness Technology masters program
- Affiliate faculty member in Heinz College, Human-Computer Interaction Institute, and Electrical and Computer Engineering Department

Fellow, Frank-Ratchye STUDIO for Creative Inquiry at Carnegie Mellon University. Pittsburgh, PA, June 2012 to August 2013

Associate Professor, Carnegie Mellon University School of Computer Science and Engineering & Public Policy Department, Pittsburgh, PA, July 2008 to July 2014 (tenured July 2011)

Co-founder and Chief Scientist, Wombat Security Technologies, Pittsburgh, PA, 2008-2011

Associate Research Professor, Carnegie Mellon University School of Computer Science and Engineering & Public Policy Department, Pittsburgh, PA, December 2003 to June 2008

Adjunct Assistant Professor of Information Systems, New York University Stern School of Business, New York, NY, 2003

Principal Technical Staff Member, AT&T Labs-Research, Florham Park, NJ, 2001-2003

Senior Technical Staff Member, AT&T Labs-Research, Florham Park, NJ 1996-2001

Lecturer and Manager of the Student Staff, Washington University Computer Science Department, St. Louis, MO, 1993-1996

Research Assistant, Washington University Medical Library, Advanced Technology Group, St. Louis MO, 1992-1993

PERSONAL

Allegheny County, PA election judge, 2004 to present
Dynamoms Women's Soccer founding commissioner, 2013 to present
Dynamo Youth Soccer age-level commissioner, 2009-2014
Pittsburgh Colfax K-8 Parent Teacher Organization webmaster, 2008 to present
Pittsburgh Science and Technology Academy Parent Teacher Organization president, 2013-2015

Hobbies: quilting, photography, yoga

PUBLICATIONS

BOOKS

1. Lorrie Faith Cranor and Simson Garfinkel, eds. **Security and Usability: Designing Secure Systems That People Can Use**. O'Reilly & Associates, Inc. (2005). [714 pages, heavily edited volume]
2. Lorrie Faith Cranor and Steven S. Wildman, eds. **Rethinking Rights and Regulations: Institutional Responses to new Communications Technologies**. MIT Press (2003).
3. Lorrie Faith Cranor. **Web Privacy with P3P**. O'Reilly & Associates, Inc. (2002).
4. Lorrie Faith Cranor and Shane Mitchell Greenstein, eds. **Communications Policy and Information Technology: Promises, Problems, Prospects**. MIT Press (2002).

CHAPTERS IN BOOKS

5. Lorrie Faith Cranor, Rebecca Balebako, Darya Kurilova, and Manya Sleeper. Privacy Illustrated. In **Deep Lab**, Deep Lab (2014).
6. Lorrie Faith Cranor, Manya Sleeper, and Blase Ur. Tracking and Surveillance. In **Introduction to IT Privacy: A Handbook for Technologists**, IAPP (2014).
7. Lorrie Faith Cranor, Jason Hong, Ponnurangam Kumaraguru, and Alessandro Acquisti. Empirical Evaluations of Embedded Training for Anti-Phishing User Education. In Rebecca Herold, **Managing an Information Security and Privacy Awareness and Training Program, Second Edition**, CRC Press (2010).
8. Lorrie Faith Cranor. Platform for Privacy Preferences Project (P3P). In Hossein Bidgoli, ed., **Handbook of Information Security**. John Wiley and Sons (2005).
9. Lorrie Faith Cranor. 'I Didn't Buy it for Myself': Privacy and Ecommerce Personalization. In Clare-Marie Karat, Jan O. Blom, and John Karat, eds. **Designing Personalized User Experiences in eCommerce**. Kluwer Academic Publishers (2004), 57-74. [Extended version of a paper originally presented at the 2003 ACM Workshop on Privacy in the Electronic Society. [15/50]]
10. Lorrie Faith Cranor. The Role of Privacy Enhancing Technologies. In **Considering Consumer Privacy: A Resource for Policymakers and Practitioners**. Center for Democracy and Technology, edited by Paula J. Bruening, March 2003.
11. Lorrie Faith Cranor. In search of the perfect voting technology: no easy answers. In Dimitris Gritzalis, ed. **Secure Electronic Voting**. Kluwer Academic Publishers (2002), 17-30.
12. Lorrie Faith Cranor. P3P: The Platform for Privacy Preferences Project. In Simson Garfinkel with Gene Spafford, **Web Security, Privacy & Commerce, 2nd Edition**. O'Reilly (2001), 699-707.
13. Marc Waldman, Lorrie Faith Cranor, and Avi Rubin. Publius. In Andy Oram, ed. **Peer-to-Peer: Harnessing the Power of Disruptive Technologies**. O'Reilly (2001), 145-158.
14. Marc Waldman, Lorrie Faith Cranor, and Avi Rubin. Trust. In Andy Oram, ed. **Peer-to-Peer: Harnessing the Power of Disruptive Technologies**. O'Reilly (2001), 242-270.
15. Lorrie Faith Cranor, Joseph Reagle, and Mark S. Ackerman. Beyond Concern: Understanding Net Users' Attitudes About Online Privacy. In Ingo Vogelsang and Benjamin M. Compaine, eds. **The Internet Upheaval: Raising Questions, Seeking Answers in Communications Policy**. MIT Press (2000), 47-70.
16. Lorrie Faith Cranor. Privacy Tools. In Helmut Baumler, ed. **E-Privacy: Datenschutz im Internet**. Vieweg & Sohn Verlagsgesellschaft (2000), 107-119.
17. Lorrie Faith Cranor and Joseph Reagle. Designing a Social Protocol: Lessons Learned from the Platform for Privacy Preferences. In Jeffrey K. MacKie-Mason and David Waterman, eds. **Telephony, the Internet, and the Media**. Lawrence Erlbaum Associates (1998), 215-232.
18. Lorrie Faith Cranor. The Role of Technology in Self-Regulatory Privacy Regimes. In **Privacy and Self Regulation in the Information Age**. U.S. Department of Commerce, National Telecommunications and Infrastructure Administration. June 1997. p. 185-191.

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19. Lorrie Faith Cranor. Necessary But Not Sufficient: Standardized Mechanisms for Privacy Notice and Choice. *Journal on Telecommunications and High Technology Law* 10(2), 2012, 273-307.
20. Saranga Komanduri, Richard Shay, Greg Norcie, Blase Ur, Lorrie Faith Cranor. AdChoices? Compliance with Online Behavioral Advertising Notice and Choice Requirements. *I/S: A Journal of Law and Policy for the Information Society* 7(3), Spring 2012, 603-638.
21. Aleecia McDonald and Lorrie Faith Cranor. A Survey of the Use of Adobe Flash Local Shared Objects to Respawn HTTP Cookies. *I/S: A Journal of Law and Policy for the Information Society* 7(3), Spring 2012, 638-687.
22. Eran Toch, Yang Wang, and Lorrie Faith Cranor. 2012. Personalization and privacy: a survey of privacy risks and remedies in personalization-based systems. *User Modeling and User-Adapted Interaction* 22, 1-2 (April 2012), 203-220.
23. Cristian Bravo-Lillo, Lorrie Faith Cranor, Julie Downs, and Saranga Komanduri, Bridging the Gap in Computer Security Warnings: A Mental Model Approach. *IEEE Security & Privacy*, March/April 2011, 18-26.
24. Michael Benisch, Patrick Gage Kelley, Norman Sadeh, and Lorrie Faith Cranor. Capturing Location-Privacy Preferences: Quantifying Accuracy and User-Burden Tradeoffs. *Journal of Personal and Ubiquitous Computing*, published online December 2010.
25. Janice Y. Tsai, Patrick Gage Kelley, Lorrie Faith Cranor, and Norman Sadeh. Location-Sharing Technologies: Privacy Risks and Controls. *I/S: A Journal of Law and Policy for the Information Society* 6(2), Summer 2010, 119-151.
26. Janice Y. Tsai, Serge Egelman, Lorrie Faith Cranor, and Alessandro Acquisti. The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study. *Information Systems Research*. 22(2): 254-268 (2011). [Originally presented at the 2007 Workshop on the Economics of Information Security, Pittsburgh, PA, June 7-8, 2007.]
27. Ponnurangam Kumaraguru, Steve Sheng, Alessandro Acquisti, Lorrie Faith Cranor, and Jason Hong. Teaching Johnny Not to Fall for Phish. *ACM Transactions on Internet Technology*. May 2010.
28. Norman Sadeh, Jason Hong, Lorrie Cranor, Ian Fette, Patrick Kelley, Madhu Prabaker, Jinghai Rao. 2009. Understanding and capturing people's privacy policies in a mobile social networking application. *Personal Ubiquitous Comput.* 13, 6 (Aug. 2009), 401-412.
29. Sarah Spiekermann and Lorrie Faith Cranor. Engineering Privacy. *IEEE Transactions on Software Engineering*, Vo. 35, No. 1, January/February, 2009, pp. 67-82.
30. Aleecia M. McDonald and Lorrie Faith Cranor. The Cost of Reading Privacy Policies. *I/S: A Journal of Law and Policy for the Information Society*, Winter 2008-09 4(3): 543-568. [Originally presented at The 36th Research Conference on Communication, Information and Internet Policy (TPRC 2008) 26-28 September 2008 Arlington, Virginia.]
31. Lorrie Faith Cranor, Serge Egelman, Steve Sheng, Aleecia M. McDonald, and Abdur Chowdhury. P3P Deployment on Websites. *Electronic Commerce Research and Applications*, Volume 7, Issue 3, Autumn 2008, Pages 274-293.
32. Aleecia McDonald and Lorrie Faith Cranor. How Technology Drives Vehicular Privacy. *I/S: A Journal of Law and Policy for the Information Society*, 2(3), Fall 2006, 981-1015.
33. Xinguang Sheng and Lorrie Faith Cranor. An Evaluation of the Effectiveness of US Financial Privacy Legislation Through the Analysis of Privacy Policies. *I/S: A Journal of Law and Policy for the Information Society*, 2(3), Fall 2006, 943-979.
34. Lorrie Faith Cranor, Praveen Guduru and Manjula Arjula. User Interfaces for Privacy Agents. *ACM Transactions on Computer Human Interaction (ToCHI)*, 13(2), June 2006, 135-178.
35. Serge Egelman and Lorrie Faith Cranor. 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, 149-183.
36. Simon Byers, Lorrie Faith Cranor, Eric Cronin, Dave Kormann, and Patrick McDaniel. An analysis of security vulnerabilities in the movie production and distribution process. *Telecommunications Policy*, 28 (7-8), August/September 2004, 619-644.
37. Marc Waldman, Aviel D. Rubin, and Lorrie Faith Cranor. The architecture of robust publishing systems. *ACM Transactions on Internet Technology (TOIT)*, 1(2), November 2001, 199-230.

38. Lorrie Faith Cranor and Paul Resnick. Protocols for Automated Negotiations with Buyer Anonymity and Seller Reputations. *Netnomics*, 2(1), 2000, 1-23.

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39. Cristian Bravo-Lillo, Lorrie Faith Cranor, Julie Downs, and Saranga Komanduri, Bridging the Gap in Computer Security Warnings: A Mental Model Approach. *IEEE Security & Privacy*, March/April 2011, 18-26.
40. Simson L. Garfinkel and Lorrie Faith Cranor. Institutional Review Boards and Your Research. *Communications of the ACM*, June 2010, 38-40.
41. Matthew Geiger and Lorrie Faith Cranor. Scrubbing Stubborn Data: An evaluation of counter-forensic privacy tools. *IEEE Security & Privacy*, September/October 2006, 16-25.
42. Lorrie Faith Cranor. What Do They "Indicate"?: Evaluating security and privacy indicators *ACM Interactions*, May/June 2006, 45-47.
43. Lorrie Faith Cranor. P3P: Making Privacy Policies More Useful. *IEEE Security and Privacy*, November/December 2003, 50-55.
44. Joseph Reagle and Lorrie Faith Cranor. The Platform for Privacy Preferences. *Communications of the ACM*, 42(2), February 1999, 48-55.
45. Lorrie Faith Cranor and Brian LaMacchia. Spam! *Communications of the ACM*, 41(8), August 1998, 74-83.

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46. Manya Sleeper, Alessandro Acquisti, Lorrie Faith Cranor, Patrick Gage Kelley, Sean A. Munson, Norman M. Sadeh: I Would Like To..., I Shouldn't..., I Wish I...: Exploring Behavior-Change Goals for Social Networking Sites. **CSCW 2015**: 1058-1069, Vancouver, BC, CA, March 14-18, 2015.
47. Chandrasekhar Bhagavatula, Blase Ur, Kevin Iacovino, Su Mon Kywey, Lorrie Faith Cranor, Marios Savvides. Biometric Authentication on iPhone and Android: Usability, Perceptions, and Influences on Adoption. **USEC 2015**, February 8, 2015.
48. Saranga Komanduri, Richard Shay, Lorrie Faith Cranor, Cormac Herley, and Stuart Schechter. Telepathwords: Preventing Weak Passwords by Reading Users' Minds. **USENIX Security 2014**. August 20-22, 2014, San Diego, CA, pp. 591-606.
49. Cristian Bravo-Lillo, Lorrie Cranor, Saranga Komanduri, Stuart Schechter, and Manya Sleeper. Harder to Ignore? Revisiting Pop-up Fatigue and Approaches to Prevent It. **SOUPS 2014**. Menlo Park, CA, July 9-11, 2014.
50. Lorrie Faith Cranor, Adam L. Durity, Abigail Marsh, and Blase Ur. Parents' and Teens' Perspectives on Privacy in a Technology-Filled World. **SOUPS 2014**. Menlo Park, CA, July 9-11, 2014.
51. Yang Wang, Pedro G. Leon, Alessandro Acquisti, Lorrie F. Cranor, Alain Forget, and Norman Sadeh. A field trial of privacy nudges for Facebook. **CHI 2014: Conference on Human Factors in Computing Systems**. Toronto, CA, April 2014.
52. Richard Shay, Saranga Komanduri, Adam L. Durity, Philip (Seyoung) Huh, Michelle L. Mazurek, Sean M. Segreti, Blase Ur, Lujo Bauer, Nicolas Christin, Lorrie F. Cranor. Can long passwords be secure and usable? **CHI 2014: Conference on Human Factors in Computing Systems**. Toronto, CA, April 2014.
53. Rebecca Balebako, Abigail Marsh, Jialiu Lin, Jason Hong, Lorrie Faith Cranor. The Privacy and Security Behaviors of Smartphone App Developers. **Workshop on Usable Security (USEC 2014)**. San Diego, CA, February 23, 2014.
54. Rebecca Balebako, Rich Shay, and Lorrie Faith Cranor. Is Your Inseam a Biometric? A Case Study on the Role of Usability Studies in Developing Public Policy. **Workshop on Usable Security (USEC 2014)**. San Diego, CA, February 23, 2014.
55. Michelle L. Mazurek, Saranga Komanduri, Timothy Vidas, Lujo Bauer, Nicolas Christin, Lorrie Faith Cranor, Patrick Gage Kelley, Richard Shay, and Blase Ur. 2013. Measuring password guessability for an entire university. **2013 ACM SIGSAC conference on Computer & communications security (CCS '13)**, 173-186.

56. Lujo Bauer, Lorrie Faith Cranor, Saranga Komanduri, Michelle L. Mazurek, Michael K. Reiter, Manya Sleeper, and Blase Ur. 2013. The post anachronism: the temporal dimension of Facebook privacy. **12th ACM workshop on privacy in the electronic society (WPES '13)**, 1-12.
57. Rebecca Balebako, Eyal Pe'er, Laura Brandimarte, Lorrie Cranor, and Alessandro Acquisti. Is it the typeset or the type of statistics? Disfluent font and self-disclosure. **2013 Workshop on Learning from Authoritative Security Experiment Results (LASER '13)**.
58. Shomir Wilson, Justin Cranshaw, Norman Sadeh, Alessandro Acquisti, Lorrie Faith Cranor, Jay Springfield, Sae Youngeong, and Arun Balasubramanian. Privacy Manipulation and Acclimation in a Location Sharing Application. **UbiComp 2013**, September 2013.
59. Pedro G. Leon, Blase Ur, Yang Wang, Manya Sleeper, Rebecca Balebako, Richard Shay, Lujo Bauer, Mihai Christodorescu, and Lorrie Faith Cranor. What Matters to Users? Factors that Affect Users' Willingness to Share Information with Online Advertisers. **SOUPS 2013**, July 2013.
60. Cristian Bravo-Lillo, Lorrie Faith Cranor, Julie Downs, Saranga Komanduri, Robert W. Reeder, Stuart Schechter, and Manya Sleeper. Your Attention Please: Designing security-decision UIs to make genuine risks harder to ignore. **SOUPS 2013**, July 2013.
61. Rebecca Balebako, Jaeyeon Jung, Wei Lu, Lorrie Faith Cranor, and Carolyn Nguyen. "Little Brothers Watching You:" Raising Awareness of Data Leaks on Smartphones. **SOUPS 2013**, July 2013.
62. Lorrie Faith Cranor, Kelly Idouchi, Pedro Giovanni Leon, Manya Sleeper, Blase Ur. Are They Actually Any Different? Comparing Thousands of Financial Institutions' Privacy Practices. **Workshop on the Economics of Information Security (WEIS)**. June 2013.
63. Yang Wang, Pedro Giovanni Leon, Kevin Scott, Xiaoxuan Chen, Alessandro Acquisti, Lorrie Faith Cranor. Privacy nudges for social media: An exploratory Facebook study. **Second International Workshop on Privacy and Security in Online Social Media**, May 14, 2013.
64. Patrick Gage Kelley, Lorrie Faith Cranor, and Norman Sadeh. Privacy as Part of the App Decision-Making Process. In **CHI 2013: Conference on Human Factors in Computing Systems**, May 2013 [393/1963].
65. Manya Sleeper, Justin Cranshaw, Patrick Gage Kelley, Blase Ur, Alessandro Acquisti, Lorrie Faith Cranor, and Norman Sadeh. "I read by Twitter the next morning and was astonished": A Conversational Perspective on Twitter Regrets. In **CHI 2013: Conference on Human Factors in Computing Systems**, May 2013 [393/1963].
66. T. Vidas, E. Owusu, S. Wang, C. Zeng, and L. Cranor. QRishing: The Susceptibility of Smartphone Users to QR Code Phishing Attacks. **USEC 2013**. [10/16].
67. P.G. Kelley, S. Komanduri, M.L. Mazurek, R. Shay, T. Vidas, L. Bauer, N. Christin and L.F. Cranor. The impact of length and mathematical operators on the usability and security of system-assigned one-time PINs. **USEC 2013**, [10/16]
68. Manya Sleeper, Rebecca Balebako, Sauvik Das, Amber Lynn McConahy, Jason Wiese, and Lorrie Faith Cranor. The Post that Wasn't: Exploring Self-Censorship on Facebook. **CSCW 2013**, February 2013.
69. C. Bravo-Lillo, L. Cranor, J. Downs, S. Komanduri, S. Schechter, and M. Sleeper, Operating system framed in case of mistaken identity: Measuring the success of web-based spoofing attacks on OS password-entry dialogs, **19th ACM Conference on Computer and Communications Security**, 18 October 2012.
70. P.G. Leon, J. Cranshaw, L.F. Cranor, J. Graves, M. Hastak, B. Ur. What Do Online Behavioral Advertising Disclosures Communicate to Users?, **WPES 2012**.
71. B. Ur, P.G. Kelley, S. Komanduri, J. Lee, M. Maass, M. Mazurek, T. Passaro, R. Shay, T. Vidas, L. Bauer, N. Christin, and L.F. Cranor. How does your password measure up? The effect of strength meters on password creation. **USENIX Security 2012**.
72. K. Vaniea, L. Bauer, L.F. Cranor, and M.K. Reiter. Studying access control usability in the lab: Lessons learned from four studies. **LASER 2012—Learning from Authoritative Security Experiment Results**, July 2012.
73. K. Vaniea, L. Bauer, L.F. Cranor, and M.K. Reiter. Out of sight, out of mind: Effects of displaying access-control information near the item it controls. **Tenth Annual Conference on Privacy, Security and Trust**, July 2012.

74. B. Ur, P.G. Leon, L.F. Cranor, R. Shay, and Y. Wang. Smart, Useful, Scary, Creepy: Perceptions of Online Behavioral Advertising, **SOUPS 2012** [14/67].
75. R. Shay, P.G. Kelley, S. Komanduri, M. Mazurek, B. Ur, T. Vidas, L. Bauer, N. Christin, L.F. Cranor. Correct horse battery staple: Exploring the usability of system-assigned passphrases. **SOUPS 2012** [14/67].
76. B. Ur, M. Sleeper, L.F. Cranor. {Privacy, Privacidad, Приватност} Policies in Social Media: Providing Translated Privacy Notice. **PSOSM 2012**.
77. R. Balebako, P.G. Leon, R. Shay, B. Ur, L.F. Cranor. Measuring the Effectiveness of Privacy Tools for Limiting Behavioral Advertising. **W2SP 2012**.
78. Patrick Gage Kelley, Saranga Komanduri, Michelle L. Mazurek, Rich Shay, Tim Vidas, Lujo Bauer, Nicolas Christin, Lorrie Faith Cranor, Julio Lopez. Guess again (and again and again): Measuring password strength by simulating password-cracking algorithms. **2012 IEEE Symposium on Security and Privacy**.
79. Pedro G. Leon, Blase Ur, Rebecca Balebako, Lorrie Faith Cranor, Richard Shay, and Yang Wang. Why Johnny Can't Opt Out: A Usability Evaluation of Tools to Limit Online Behavioral Advertising. In **CHI 2012: Conference on Human Factors in Computing Systems**, May 2012 [370/1577].
80. Peter F. Klemperer, Yuan Liang, Michelle L. Mazurek, Manya Sleeper, Blase Ur, Lujo Bauer, Lorrie Faith Cranor, Nitin Gupta, and Michael K. Reiter. Tag, you can see it! Using tags for access control in photo sharing. In **CHI 2012: Conference on Human Factors in Computing Systems**, May 2012 [370/1577].
81. P.G. Kelley, S. Consolvo, L.F. Cranor, J. Jung, N. Sadeh, D. Wetherall. A Conundrum of Permissions: Installing Applications on an Android Smartphone. **Workshop on Usable Security**. Bonaire, March 2, 2012.
82. Manya Sleeper, Divya Sharma, and Lorrie Faith Cranor. I know where you live: analyzing privacy protection in public databases. **Workshop on Privacy in the Electronic Society (WPES 2011)**. Chicago, IL, October 17, 2011, 165-170 [21/73].
83. Jason Wiese, Patrick Gage Kelley, Lorrie Faith Cranor, Laura Dabbish, Jason I. Hong, and John Zimmerman. Are you close with me? Are you nearby?: Investigating social groups, closeness, and willingness to share. **13th international Conference on Ubiquitous Computing (UbiComp '11)**. Beijing, China, September 17-21, 2011, 197-206 [50/302].
84. Cristian Bravo-Lillo, Lorrie Faith Cranor, Julie Downs, Saranga Komanduri, and Manya Sleeper. Improving computer security dialogs. **13th IFIP TC 13 international Conference on Human-Computer interaction (INTERACT)**. Lisbon, Portugal, September 5-9, 2011, 18-35.
85. Patrick Gage Kelley, Robin Brewer, Yael Mayer, Lorrie Faith Cranor, and Norman Sadeh. An investigation into Facebook friend grouping. **13th IFIP TC 13 international Conference on Human-Computer interaction (INTERACT)**. Lisbon, Portugal, September 5-9, 2011, 216-233.
86. Yang Wang, Gregory Norcie, Saranga Komanduri, Pedro Giovanni Leon, Lorrie Faith Cranor, and Alessandro Acquisti. "I regretted the minute I pressed share": A Qualitative Study of Regrets on Facebook. **SOUPS 2011**. Pittsburgh, PA, July 20-22, 2011 [15/45].
87. Yang Wang, Gregory Norcie, and Lorrie Faith Cranor. Who is concerned about what? A study of American, Chinese and Indian users' privacy concerns on social network sites. **4th international Conference on Trust and Trustworthy Computing**, Pittsburgh, PA, June 22-24, 2011, 146-153.
88. Fatih Kursat Ozenc, Lorrie Faith Cranor, Jim Morris. Adapt A Ride: Understanding the Dynamics of Commuting Preferences through An Experience Design Framework, **DPPI 2011**, Milano Italy, June 22-25, 2011.
89. Timothy Vidas, Nicolas Christin, Lorrie Cranor. Curbing Android Permission Creep. **Web 2.0 Security & Privacy 2011**. Oakland, CA, May 26, 2011.
90. Patrick Gage Kelley, Michael Benisch, Lorrie Faith Cranor, and Norman Sadeh. When are users comfortable sharing locations with advertisers? **CHI 2011**. Vancouver, BC, Canada, May 7-12, 2011, 2449-2452 [410/1532].
91. Robert W. Reeder, Lujo Bauer, Lorrie Faith Cranor, Michael K. Reiter, and Kami Vaniea. More than skin deep: measuring effects of the underlying model on access-control system usability. **CHI 2011**. Vancouver, BC, Canada, May 7-12, 2011, 2065-2074 [410/1532].

92. Michelle L. Mazurek, Peter F. Klemperer, Richard Shay, Hasan Takabi, Lujo Bauer, and Lorrie Faith Cranor. Exploring reactive access control. **CHI 2011**. Vancouver, BC, Canada, May 7-12, 2011, 2085-2094 [410/1532].
93. Saranga Komanduri, Richard Shay, Patrick Gage Kelley, Michelle L. Mazurek, Lujo Bauer, Nicolas Christin, Lorrie Faith Cranor, and Serge Egelman. Of passwords and people: measuring the effect of password-composition policies. **CHI 2011**. Vancouver, BC, Canada, May 7-12, 2011, 2595-2604 [410/1532].
94. Hanan Hibshi, Tim Vidas, and Lorrie Faith Cranor. Usability of Forensics Tools: A User Study. **IT Security Incident Management and IT Forensics (IMF)**, 10-12, May 2011.
95. P. Leon, L. Cranor, A. McDonald, and M. McGuire. Token Attempt: The Misrepresentation of Website Privacy Policies through the Misuse of P3P Compact Policy Tokens. **Workshop on Privacy in the Electronic Society (WPES 2010)**. Chicago, IL, October 4, 2010. [10/48]
96. A. McDonald, and L. Cranor. Americans' Attitudes about Internet Behavioral Advertising Practices. **Workshop on Privacy in the Electronic Society (WPES 2010)**. Chicago, IL, October 4, 2010. [10/48]
97. B. Meeder, J. Tam, P.G. Kelley, and L.F. Cranor. RT @IWantPrivacy: Widespread Violation of Privacy Settings in the Twitter Social Network. **Web 2.0 Security and Privacy 2010 (W2SP 2010)**. May 20, 2010. [32/13]
98. Eran Toch, Justin Cranshaw, Paul Hanks Drielsma, Janice Y. Tsai, Patrick Gage Kelley, Lorrie Faith Cranor, Jason Hong, and Norman Sadeh. Empirical Models of Privacy in Location Sharing. **Ubicomp 2010**. Copenhagen, Denmark, Sept 26-29, 2010. [39/202]
99. Richard Shay, Saranga Komanduri, Patrick Gage Kelley, Pedro Giovanni Leon, Michelle L. Mazurek, Lujo Bauer, Nicolas Christin and Lorrie Faith Cranor. Encountering Stronger Password Requirements: User Attitudes and Behaviors. **SOUPS 2010**. Redmond, WA, July 14-16, 2010 [16/64].
100. P.G. Kelley, L.J. Cesca, J. Bresee, and L.F. Cranor. Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach. **CHI 2010**. Atlanta, GA, April 10-15, 2010. [296/1346].
101. M. Mazurek, J.P. Arsenault, J. Bresee, N. Gupta, I. Ion, C. Johns, D. Lee, Y. Liang, J. Olsen, B. Salmon, R. Shay, K. Vaniea, L. Bauer, L.F. Cranor, G.R. Ganger, and M.K. Reiter. Access Control for Home Data Sharing: Attitudes, Needs and Practices. **CHI 2010**. Atlanta, GA, April 10-15, 2010. [296/1346].
102. J. Downs, M. Holbrook, S. Sheng, and L. Cranor. Are Your Participants Gaming the System? Screening Mechanical Turk Workers. **CHI 2010**. Atlanta, GA, April 10-15, 2010. [296/1346].
103. S. Sheng, M. Holbrook, P. Kumaraguru, L. Cranor, and J. Downs. Who Falls for Phish? A Demographic Analysis of Phishing Susceptibility and Effectiveness of Interventions. **CHI 2010**. Atlanta, GA, April 10-15, 2010. [296/1346].
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105. J. Sunshine, S. Egelman, H. Almuhiemedi, N. Atri, and L. Cranor. Crying Wolf: An Empirical Study of SSL Warning Effectiveness. **USENIX Security 2009**. Montreal Canada, August 10-14, 2009. [26/172].
106. A.M. McDonald, R.W. Reeder, P.G. Kelley, and L.F. Cranor. A comparative study of online privacy policies and formats. **Privacy Enhancing Technologies Symposium 2009**, August 5-7, 2009, Seattle, WA. [14/44]
107. S. Sheng, B. Wardman, G. Warner, L. Cranor, J. Hong, and C. Zhang. An Empirical Analysis of Phishing Blacklists. **Conference on Email and Anti-Spam (CEAS 2009)**, July 16-17, 2009, Mountain View, CA. [57%]
108. P. Kumaraguru, L. Cranor, and L. Mather. Anti-Phishing Landing Page: Turning a 404 into a Teachable Moment for End Users. **Conference on Email and Anti-Spam (CEAS 2009)**, July 16-17, 2009, Mountain View, CA. [57%]
109. P. Kumaraguru, J. Cranshaw, A. Acquisti, L. Cranor, J. Hong, M.A. Blair, and T. Pham. School of Phish: A Real-Word Evaluation of Anti-Phishing Training. **SOUPS 2009**, July 15-17, 2009, Mountain View, CA. [15/49]

110. P. Kelley, J. Bresee, L. Cranor, and R. Reeder. A “Nutrition Label” for Privacy. **SOUPS 2009**, July 15-17, 2009, Mountain View, CA. [15/49]
111. S. Egelman, J.Y. Tsai, L.F. Cranor, and A. Acquisti. Timing is Everything? Effects of Timing and Placement of Online Privacy Indicators. In **CHI 2009: Conference on Human Factors in Computing Systems**. Boston, MA, April 4-9, 2009. [277/1130].
112. L. Bauer, L.F. Cranor, R.W. Reeder, M.K. Reiter, and K. Vaniea. Real Life Challenges in Access-control Management. In **CHI 2009: Conference on Human Factors in Computing Systems**. Boston, MA, April 4-9, 2009. [277/1130].
113. J.Y. Tsai, P.G. Kelley, P. Drielsma, L.F. Cranor, J.I. Hong, and N. Sadeh. Who’s Viewed You? The Impact of Feedback in a Mobile Location-Sharing Application. In **CHI 2009: Conference on Human Factors in Computing Systems**. Boston, MA, April 4-9, 2009. [277/1130].
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116. Ahren Studer, Christina Johns, Jaanus Kase, Kyle O'Meara, Lorrie Cranor. A Survey to Guide Group Key Protocol Development. **Annual Computer Security Applications Conference (ACSAC) 2008**, December 8-12, 2008, Anaheim, CA. [42/173]
117. R.W. Reeder, P.G. Kelley, A.M. McDonald, and L.F. Cranor. A User Study of the Expandable Grid Applied to P3P Policy Visualization. **Workshop on Privacy in the Electronic Society (WPES 2008)**. Oct. 2008. [9/42]
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119. Lorrie Faith Cranor. A Framework for Reasoning About the Human in the Loop. **Usability, Psychology, and Security 2008**. [13/37]
120. Lujo Bauer, Lorrie Faith Cranor, Robert W. Reeder, Michael K. Reiter, and Kami Vaniea. A User Study of Policy Creation in a Flexible Access-Control System. In **CHI 2008: Conference on Human Factors in Computing Systems**. Florence, Italy, April 5-10, 2008, p. 543-552. [157/714]
121. Robert W. Reeder, Lujo Bauer, Lorrie Faith Cranor, Michael K. Reiter, Kelli Bacon, Keisha How, and Heaher Strong. Expandable Grids for Visualizing and Authoring Computer Security Policies. In **CHI 2008: Conference on Human Factors in Computing Systems**. Florence, Italy, April 5-10, 2008, p. 1473-1482. [157/714]
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123. Julie S. Downs, Mandy B. Holbrook and Lorrie Faith Cranor. Behavioral Response to Phishing Risk. In **Proceedings of the 2007 APWG eCrime Researchers Summit**, Pittsburgh PA, October 4-5, 2007, p. 37-44. [7/18]
124. Ponnurangam Kumaraguru, Yong Rhee, Steve Sheng, Sharique Hasan, Alessandro Acquisti, Lorrie Cranor and Jason Hong. Getting Users to Pay Attention to Anti-Phishing Education: Evaluation of Retention and Transfer. In **Proceedings of the 2007 APWG eCrime Researchers Summit**, Pittsburgh PA, October 4-5, 2007, p. 70-81. [7/18]
125. Lujo Bauer, Lorrie Faith Cranor, Michael K. Reiter, and Kami Vaniea. Lessons Learned From the Deployment of a Smartphone-Based Access-Control System. In **Proceedings of the 2007 Symposium On Usable Privacy and Security**, Pittsburgh, PA, July 18-20, 2007. [13/41] [Originally published as Technical Report CMU-CyLab-06-016]
126. Steve Sheng, Bryant Magnien, Ponnurangam Kumaraguru, Alessandro Acquisti, Lorrie Faith Cranor, Jason Hong, and Elizabeth Nunge. Anti-Phishing Phil: The Design and Evaluation of a Game That Teaches People Not to Fall for Phish. In **Proceedings of the 2007 Symposium On Usable Privacy and Security**, Pittsburgh, PA, July 18-20, 2007. [13/41]

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128. Ponnurangam Kumaraguru, Yong Woo Rhee, Alessandro Acquisti, Lorrie Faith Cranor, Jason Hong, and Elizabeth Nunge. Protecting People from Phishing: The Design and Evaluation of an Embedded Training Email System. In **CHI 2007: Conference on Human Factors in Computing Systems**, San Jose, California, 28 April – May 3, 2007, 905-914. [142/571]
129. Yue Zhang, Serge Egelman, Lorrie Faith Cranor, and Jason Hong. Phishing Phish: Evaluating Anti-Phishing Tools. In **Proceedings of the 14th Annual Network & Distributed System Security Symposium (NDSS 2007)**, San Diego, CA, 28th February - 2nd March, 2007. [18/118]
130. Jason Cornwell, Ian Fette, Gary Hsieh, Madhu Prabaker, Jinghai Rao, Karen Tang, Kami Vaniea, Lujo Bauer, Lorrie Cranor, Jason Hong, Bruce McLaren, Mike Reiter, and Norman Sadeh. User Controllable Security and Privacy for Pervasive Computing. In **Proceedings of HotMobile 2007: The 8th IEEE Workshop on Mobile Computing Systems and Applications**, Tucson, Arizona, February 26-27, 2007. [18/54]
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132. Sasha Romanosky, Alessandro Acquisti, Jason Hong, Lorrie Faith Cranor, and Batya Friedman. Privacy Patterns for Online Interactions. **Pattern Languages of Programming Conference (PLoP 2006)**, October 21-23, 2006, Portland, Oregon.
133. Serge Egelman, Lorrie Cranor, and Abdur Chowdhury. An Analysis of P3P-Enabled Web Sites among Top-20 Search Results. In **Proceedings of the Eighth International Conference on Electronic Commerce**, August 14-16, 2006, Fredericton, New Brunswick, Canada. [53/112]
134. Janice Y. Tsai, Lorrie Faith Cranor, and Scott Craver. Vicarious infringement creates a privacy ceiling. In **Proceedings of the ACM Workshop on Digital Rights Management**, Alexandria, Virginia, October 30, 2006. [11/33]
135. Julie Downs, Mandy Holbrook, and Lorrie Cranor. Decision Strategies and Susceptibility to Phishing. In **Proceedings of the 2006 Symposium On Usable Privacy and Security**, 12-14 July 2006, Pittsburgh, PA. [14/39]
136. Cynthia Kuo, Sasha Romanosky, and Lorrie Cranor. Human Selection of Mnemonic Phrase-Based Passwords. In **Proceedings of the 2006 Symposium On Usable Privacy and Security**, 12-14 July 2006, Pittsburgh, PA. [14/39]
137. Julia Gideon, Serge Egelman, Lorrie Cranor, and Alessandro Acquisti. Power Strips, Prophylactics, and Privacy, Oh My! In **Proceedings of the 2006 Symposium On Usable Privacy and Security**, 12-14 July 2006, Pittsburgh, PA. [14/39]
138. Braden Kowitz and Lorrie Cranor. Peripheral Privacy Notifications for Wireless Networks. In **Proceedings of the 2005 ACM Workshop on Privacy in the Electronic Society (WPES2005)**, 7 November 2005, Alexandria, VA [9/40].
139. Ponnurangam Kumaraguru and Lorrie Cranor. Privacy in India: Attitudes and Awareness. In **Proceedings of the 2005 Workshop on Privacy Enhancing Technologies (PET2005)**, 30 May - 1 June 2005, Dubrovnik, Croatia.
140. Simon Byers, Lorrie Cranor, Dave Kormann, and Patrick McDaniel. Searching for Privacy: Design and Implementation of a P3P-Enabled Search Engine. In **Proceedings of the 2004 Workshop on Privacy Enhancing Technologies (PET2004)**, 26-28 May, 2004, Toronto, Canada.
141. Simon Byers, Lorrie Faith Cranor, and David Kormann. Automated Analysis of P3P-Enabled Web Sites. In **Proceedings of the Fifth International Conference on Electronic Commerce (ICEC2003)**. Pittsburgh, PA, October 1-3, 2003.
142. Lorrie Faith Cranor, Manjula Arjula, and Praveen Guduru. Use of a P3P User Agent by Early Adopters. In **Proceedings of the ACM Workshop on Privacy in the Electronic Society (WPES2002)**, November 21, 2002. [12/44]
143. Marc Waldman, Aviel D. Rubin and Lorrie Faith Cranor. Publius: A robust, tamper-evident, censorship-resistant web publishing system. In **Proceedings of the 9th USENIX Security Symposium**. August 2000, 59-72.

144. Mark S. Ackerman, Lorrie Faith Cranor and Joseph Reagle. Privacy in e-commerce: examining user scenarios and privacy preferences. In **Proceedings of the 1st ACM conference on Electronic Commerce**, Denver Colorado, 1999.
145. Mark S. Ackerman and Lorrie Cranor. Privacy Critics: UI Components to Safeguard Users' Privacy. **Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'99)**, short papers (v.2.), p. 258-259.
146. Lorrie Faith Cranor and Ron K. Cytron. Sensus: A Security-Conscious Electronic Polling System for the Internet. **Proceedings of the Hawai'i International Conference on System Sciences**, January 7-10, 1997, Wailea, Hawai'i, USA.

UNREFEREED CONFERENCE AND WORKSHOP PAPERS

147. Serge Egelman, Janice Tsai, and Lorrie Cranor. Tell Me Lies: A Methodology for Scientifically Rigorous Security User Studies. **CHI 2010 Workshop on Studying Online Behavior**, April 2010, Atlanta Georgia.
148. Janice Tsai and Lorrie Cranor. Interfacing with Public Policy. **CHI 2006 Workshop on Public Policy** 23 April 2006, Montreal, Quebec, Canada.
149. Serge Egelman, Janice Tsai, Lorrie Cranor, and Alessandro Acquisti. Studying the Impact of Privacy Information on Online Purchase Decisions. **CHI 2006 Workshop on Methodologies for Studying Privacy Issues** 22 April 2006, Montreal, Quebec, Canada.
150. Ian Fette, Norman Sadeh, and Lorrie Cranor. Web Security Requirements: A Phishing Perspective. **W3C Workshop on Usability and Transparency of Web Authentication** 15-16 March 2006, New York, NY.
151. Ponnurangam Kumaraguru, Lorrie Faith Cranor and Elaine Newton. Privacy Perceptions in India and the United States: An Interview Study. **The 33rd Research Conference on Communication, Information and Internet Policy** September (TPRC2005) 23-25 September 2005 Arlington, Virginia. [Abstracts are refereed]
152. Simon Byers, Lorrie Cranor, Eric Cronin, David Kormann, and Patrick McDaniel. Exposing digital content piracy: approaches, issues and experiences. **Conference Record of the Thirty-Eighth Asilomar Conference on Signals, Systems and Computers**, 2004, pp. 377- 381, 7-10 Nov. 2004. [invited paper]
153. Lorrie Faith Cranor and Joel Reidenberg. Can user agents accurately represent privacy notices? **The 30th Research Conference on Communication, Information and Internet Policy (TPRC2002)** 28-30 September, 2002 Alexandria, Virginia. [Abstracts are refereed]
154. Lorrie Faith Cranor. The role of privacy advocates and data protection authorities in the design and deployment of the platform for privacy preferences. **Proceedings of the 12th Conference on Computers, Freedom and Privacy**, April 16-19, 2002, San Francisco, CA.
155. Lorrie Faith Cranor. Ten years of computers, freedom, and privacy: a personal retrospective. **Proceedings of the Tenth Conference on Computers, Freedom and Privacy: Challenging the Assumptions**, April 4-7, 2000, Toronto, ON Canada, p. 11-15.
156. Lorrie Faith Cranor. Agents of Choice: Tools that Facilitate Notice and Choice about Web Site Data Practices. **Proceedings of the 21st International Conference on Privacy and Personal Data Protection**, 13-15 September 1999, Hong Kong SAR, China, p. 19-25. [Invited paper]
157. Lorrie Faith Cranor and Rebecca N. Wright. Influencing Software Usage. **Proceedings of the Telecommunications Policy Research Conference**. Alexandria, VA, October 3-5, 1998. [Abstracts are refereed]
158. Lorrie Faith Cranor and Ron K. Cytron. Towards an Information-Neutral Voting Scheme That Does Not Leave Too Much to Chance. Paper presented at the **Midwest Political Science Association Annual Meeting**, April 18-20, 1996.

TECHNICAL REPORTS

159. L. Bauer, C. Bravo-Lillo, L. Cranor, and E. Fragkaki. Warning Design Guidelines. CMU-CyLab-13-002. February 5, 2013.
160. Aleecia M. McDonald and Lorrie Faith Cranor. An Empirical Study of How People Perceive Online Behavioral Advertising. CyLab Technical Report. cmu-cylab-09-015.

161. Lorrie Faith Cranor, Aleecia M. McDonald, Serge Egelman, and Steve Sheng. 2006 Privacy Policy Trends Report. CyLab Privacy Interest Group. January 31, 2007.
162. L. Cranor, B. Dobbs, S. Egelman, G. Hogben, J. Humphrey, M. Langheinrich, M. Marchiori, M. Presler-Marshall, J. Reagle, M. Schunter, D. Stampley, and R. Wenning. The Platform for Privacy Preferences 1.1 (P3P1.1) Specification. W3C Working Group Note, 13 November 2006.
163. P. Kumaraguru and L. Cranor. Privacy Indexes: A Survey of Westin's Studies. ISRI Technical Report. CMU-ISRI-05-138, 2005. <http://reports-archive.adm.cs.cmu.edu/anon/isri2005/abstracts/05-138.html>
164. Lorrie Cranor, Marc Langheinrich, Massimo Marchiori, Martin Presler-Marshall, and Joseph Reagle. The Platform for Privacy Preferences 1.0 (P3P1.0) Specification. W3C Recommendation 16 April 2002. <http://www.w3.org/TR/P3P/>
165. Lorrie Cranor, Marc Langheinrich, and Massimo Marchiori. A P3P Preference Exchange Language 1.0 (APPEL1.0). W3C Working Draft 15 April 2002.
166. Lorrie Faith Cranor, Paul Resnick, and Danielle Gallo. Technology Inventory: A Catalog of Tools that Support Parents' Ability to Choose Online Content Appropriate for their Children. Prepared for the Internet Online Summit: Focus on Children, December 1997. Revised for America Links Up, September 1998.

OTHER PUBLICATIONS

167. Lorrie Faith Cranor and Norbou Buchler. Better Together: Usability and Security Go Hand in Hand. *IEEE Security & Privacy*, 12(6) : 89-93, November/December 2014.
168. Rebecca Balebako and Lorrie Cranor. Improving App Privacy: Nudging App Developers to Protect User Privacy. *IEEE Security & Privacy*, 12(4) : 55-58, July/August 2014.
169. Lorrie Faith Cranor. Self Defense: It is difficult to protect your privacy even if you know how. *MIT Technology Review*, May/June 2014, p. 12.
170. Lorrie Faith Cranor. Security Blanket. *Science*, February 7, 2014. [photograph of my quilt, which won an honorable mention in the NSF Science and Engineering Visualization Challenge]
171. Lorrie Faith Cranor and Norman Sadeh. Privacy engineering emerges as a hot new career. *IEEE Potentials*, November/December 2013.
172. Lorrie Faith Cranor and Norman Sadeh. A Shortage of Privacy Engineers. *IEEE Security & Privacy*, March/April 2013.
173. Lorrie Faith Cranor. Can Users Control Online Behavioral Advertising Effectively? *IEEE Security & Privacy*, March/April 2012.
174. Lorrie Faith Cranor. Security for Humans. *The Innovator*, Volume 4, Issue 1, February 2011.
175. Lorrie Faith Cranor. Can Phishing Be Foiled? *Scientific American*, December 2008, p. 104-110.
176. Lorrie Cranor, Jason Hong, and Michael Reiter. Teaching Usable Privacy and Security: A Guide for Instructors. 2007. <http://cups.cs.cmu.edu/course-guide/>
177. Lorrie Faith Cranor. Giving Notice: Why Privacy Policies and Security Breach Notifications Aren't Enough. *IEEE Communications Magazine*. August 2005. p. 18-19.
178. Lorrie Faith Cranor and Simson Garfinkel. Guest Editors' Introduction: Secure or Usable? *IEEE Security and Privacy*. September/October 2004. p. 16-18.
179. Lorrie Faith Cranor. A Webmaster's Guide to Troubleshooting P3P. O'Reilly Network. November 2002.
180. Lorrie Faith Cranor. Help! IE6 is blocking my cookies! O'Reilly Network. October 2002.
181. Lorrie Faith Cranor and Rigo Wenning. Why P3P is a Good Privacy Tool for Consumers and Companies. GigaLaw.com. (April 2002).
182. Lorrie Faith Cranor. The P3P Protocol Standardizes Online Privacy Statements. *e-commerce Law & Strategy*. January 2002, p.1, 8-9.
183. Lance J. Hoffman and Lorrie Cranor. Internet voting for public officials: introduction. *Communications of the ACM*. Vol. 44, No. 1 (Jan. 2001), p. 69-71.
184. Lorrie Faith Cranor. Introduction to CACM special section: Internet Privacy. *Communications of the ACM*. Vol. 42, No. 2 (Feb. 1999), p. 28-31.
185. Lorrie Faith Cranor. Bias and Responsibility in 'Neutral' Social Protocols, *Computers & Society*, September 1998, p. 17-19.

186. Lorrie Faith Cranor. Internet Privacy: A Public Concern. *netWorker: The Craft of Network Computing* Vol. 2, No. 3 (June/July 1998), p. 13-18.
187. Lorrie Faith Cranor. Declared-Strategy Voting: An Instrument for Group Decision-Making. Washington University Dissertation. December 1996.
188. Lorrie Ackerman. Is ENOF Enough? Design and Evaluation of an Electronic Newspaper of the Future. Washington University Masters Thesis. May 1993.
189. Lorrie Ackerman. After Accolade: time for new laws? *IEEE Software*. November 1992. p100-101.

PATENTS AND INVENTION DISCLOSURES

190. Norman Sadeh-Konieczpol, Paul Hanks Drielsma, Lorrie Faith Cranor, and Patrick Kelley. US Patent 8,423,483 User-controllable learning of policies. Issued April 16, 2013.
191. Cranor, L., Sadeh, N., Kelley, P., Drielsma, P. H., Hong, J., Toch, E., Tsai, J., "Locaccino": A friend finder application with privacy authoring and auditing functionality, Invention Disclosure Submitted, November 2008.
192. Cranor, L., Hong, J., Kumaraguru, P., Rhae, Y., Acquisti, A., PhishGuru: An embedded Training System that Protects People from Phishing, Invention Disclosure Submitted, August 2, 2007.
193. Cranor, L., Sheng, S., Magnien, B., Acquisti, A., Hong, J., Kumaraguru, P., "An online game that teaches people how to protecting themselves from phishing attacks," Invention Disclosure Submitted, March 13, 2007.
194. Cranor, L., Hong, J., Zhang, Y., CANTINA: A Content-based Approach for Detecting Phishing Sites, Invention Disclosure Submitted, December 2006.

EVIDENCE OF EXTERNAL REPUTATION

CITATIONS AND AWARDS

- ACM Fellow, 2014
- ELATE Fellow, Executive Leadership in Academic Technology and Engineering, 2014-2015
- Symposium On Usable Privacy and Security Impact Award Nominee, 2014 (one of 10 SOUPS papers published in 2005-2009 recognized as having a significant impact on usable security and privacy research and practice) [135]
- Symposium On Usable Privacy and Security 2014 Distinguished Poster Award
- Montgomery Blair High School Magnet Foundation Distinguished Alumni Award, 2014
- NSF Science and Engineering Visualization Challenge Honorable Mention, 2014
- Symposium On Usable Privacy and Security 2013 Distinguished Paper Award [60]
- Information Systems Society and Information Systems Research 2012 Best Published Paper Award [26]
- Recognized as a Privacy by Design Ambassador by the Information and Privacy Commissioner, Ontario, Canada, 2012
- Paper selected for Privacy Papers for Policy Makers, 2012 [74]
- CHI 2012 Best Paper Award Honorable Mention [79]
- CHI 2011 Best Paper Award Honorable Mention [93]
- Finalist, Executive Women's Forum (information security, risk management, and privacy) Women of Influence Awards, 2010
- Paper selected for Privacy Papers for Policy Makers, 2010 [74]
- Award for Outstanding Research in Privacy Enhancing Technologies, Runner up, 2010 [79]
- ACSAC 2009 Distinguished Practitioner Award
- CHI 2008 Best Paper Award Honorable Mention [122]
- Tor Graphical User Interface Design Competition, Phase 1 Overall Winner (2006)
- 2004 IBM Best Academic Privacy Faculty Award
- 2004 IBM Faculty Award
- Technology Review Top 100 Innovator 35 or Younger (2003)
- Best Paper Award, The Fifth International Conference on Electronic Commerce (ICEC 2003) [141]
- 2002 AT&T Standards Recognition Award
- Index on Censorship Freedom of Expression Award for Best Circumvention of Censorship (for Publius project), 2001
- Best Paper Award, 9th USENIX Security Symposium, 2000 [143]
- ACM Computer Science Conference Student Poster Forum Award, 1996
- Washington University Association of Graduate Engineering Students Research Fair First Place Award, 1996
- Washington University Omicron Delta Kappa Campus Government Honors Medal, 1995
- Washington University Engineering & Policy Departmental Fellowship, 1992-96
- Senior Award for Service to the Engineering & Policy Department and Professional Excellence, 1992
- Missouri College Newspaper Association Award for Second Place in Features Writing, 1992
- Washington University Woodward Engineering Fellowship, 1989-92
- National Merit Scholarship Finalist, 1989
- Columbia University's national Gold Circle Award for Features Profiles Writing, second place, 1988

ADVISORY COMMITTEES AND BOARDS

- Member, CMU Nanotechnology-Environmental Effects and Policy (NEEP) IGERT Advisory Board, 2012 to present
- Member, NYU Center for Interdisciplinary Studies in Security and Privacy (CRISSP) IGERT Advisory Board, 2011 to present

- Member, DARPA Privacy Panel, 2010-2013
- Member, Future of Privacy Forum Advisory Board, 2009 to present
- Member, Wombat Security Technologies Board of Directors, 2008-2014
- Member, Electronic Frontier Foundation Board of Directors, 2007 to present
- Member, Washington University in St. Louis Department of Computers Science and Engineering External Advisory Board, 2007-2010
- Member, Microsoft Trusted Computing Academic Advisory Board, 2004-2010
- Member, IBM Privacy Institute External Advisory Board, 2001-2008
- Member, Federal Trade Commission Advisory Committee on Online Access and Security, 2000
- Member, The Democracy Online Project National Task Force, 1999-2001
- Member, Voting Integrity Project National Advisory Board, 1998-2001
- Graduate Student Representative, Washington University Board of Trustees, 1995-96

STANDARDS ACTIVITIES

- Chair, W3C Platform for Privacy Preferences Project Specification Working Group, 1999-2006
- Advisory Committee Representative, World Wide Web Consortium, 1997-2002
- Chair, W3C Platform for Privacy Preferences Project Vocabulary Working Group, 1997

CONFERENCE AND WORKSHOP COMMITTEES

- Symposium On Usable Privacy and Security — general chair (2005-2015)
- CHI Conference on Human Factors in Computing Systems — Associate chair (2014), paper reviewer (2003, 2004, 2006-2013, 2015), student research competition judge (2008-2010)
- Privacy Enhancing Technologies Symposium — program committee member (2008, 2009, 2015)
- Workshop on the Future of Privacy Notice and Choice — general chair (2014)
- International Workshop on Privacy Engineering — program committee member (2015)
- NDSS Workshop on Usable Security (USEC) — program committee member (2014)
- W3C Workshop on Web Tracking and User Privacy — Program committee co-chair (2011)
- International Conference on Trust and Trustworthy Computing — program committee member (2009, 2010)
- ACM CCS Workshop on Assurable & Usable Security Configuration (SafeConfig) — program committee member (2009, 2010)
- National Academy of Sciences Workshop on Usability, Security, and Privacy of Information Systems, Program Committee, 2009
- ACM Conference on Computer and Communications Security (CCS) — program committee member (2007, 2008, 2009)
- Computers, Freedom And Privacy Conference — program committee member (1999, 2004), conference chair (2000), advisory board member (2001), treasurer (2000-2002), steering committee chair (2002-2006), research showcase co-chair (2009), steering committee member (2000-2013)
- CMU/Microsoft Mindswap on Privacy — co-chair (2007)
- Anti-Phishing Working Group eCrime Researchers Summit — general chair (2007)
- ACM CCS Workshop on Digital Identity Management — program committee member (2007)
- IEEE Workshop on Policies for Distributed Systems and Networks — program committee member (2007)
- ACM Conference on Electronic Commerce — program committee member (2001, 2007)
- W3C Workshop on Transparency and Usability of Web Authentication (2006)
- Semantic Web And Policy Workshop — program committee member (2005)
- UM 2005 Workshop On Privacy-Enhanced Personalization — co-chair (2005)
- Third Annual Conference On Privacy, Security And Trust — program committee member (2005)
- Workshop On Privacy Enhancing Technologies — program committee member (2003, 2004, 2005)
- International World Wide Web Conference — E-commerce and security vice chair (2001), program committee member (2000, 2002, 2004, 2009)
- ACM Workshop on Digital Rights Management — program committee member (2004)
- ACM Workshop On Privacy In The Electronic Society — program committee member (2002, 2004)
- DIMACS Workshop On Usable Privacy And Security Software — chair (2004)

- International Conference On Electronic Commerce – eCommerce Law & Policy Co-Chair (2003)
- Workshop On The Future Of P3P — program committee co-chair and workshop co-chair (2003)
- Financial Cryptography – program committee member (2003)
- Telecommunications Policy Research Conference (TPRC) — program committee chair (2001), program committee member (1999, 2000)
- National Workshop on Internet Voting — Executive committee member (2000-2001)
- AT&T Student Research Day — committee chair (1998, 1999)

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

- International Association of Privacy Professionals (IAPP), Certified Information Privacy Technologist (CIPT)
- ACM Fellow (2009-2010 elected member of ACM Public Policy Council (USACM), 1997-2003 member ACM Publications Board, 2000-2003 vice chair ACM Publications Board, 1997-1999 student activities chair on ACM Membership Activities Board, 1995-1996 member ACM Membership and Promotion Board)
- IEEE Senior Member

EDITORIAL BOARD MEMBERSHIPS

- Editorial Board Member, IEEE Transactions on Dependable and Secure Computing, 2015 to present
- Editorial Board Member, I/S: A Journal of Law and Policy for the Information Society, 2004 to present
- Associate Editor, The Information Society, 2000 to present
- Editorial Board Member, User Modeling and User-Adapted Interaction: The Journal of Personalization Research, 2006-2013
- Associate Editor, ACM Transactions on Internet Technology, 2000-2011
- Area Editor, Electronic Commerce Research and Applications, 2006-2008
- Editorial Board Member, Journal of Privacy Technology, 2004-2006
- Associate Editor, SIGecom Exchanges, 2000-2002
- Editor-in-Chief, Crossroads: The ACM Student Magazine, 1994-1996

INVITED TALKS

- Distinguished Speaker: *Security, Privacy, and Human Behavior*. Women in Cybersecurity, Atlanta, GA, March 27, 2015.
- Game Changer talk: *Don't Change Your Pa\$\$w0rd!* IAPP Global Privacy Summit. Washington, DC, March 6, 2015.
- Keynote: *New Findings in Notice and Consent*, IAPP Practical Privacy Series, Washington, DC, December 2, 2014.
- *The continuing quest for secure and usable passwords*, Grace Hopper Celebration of Women in Computing, Phoenix, AZ, October 10, 2014.
- *iloveyou password 123456*. TEDxCMU, Pittsburgh, PA, March 2, 2014.
- *Privacy Nudges and Self-Censorship*, Facebook Faculty Summit, Menlo Park, CA, August 6, 2013.
- Keynote: *Privacy Notice and Choice in Practice*, Privacy Enhancing Technologies Symposium, Bloomington, Indiana, July 10, 2013.
- *Privacy: The User Perspective*, Telefonica Privacy and Data Monetization Event, Barcelona, Spain, February 8, 2012.
- Necessary but not sufficient, standards mechanisms for privacy notice and choice, Silicon Flatirons Economics of Privacy Conference, Boulder, CO, December 2, 2011.
- Keynote: *Usable Privacy and Security Research and Education*, Workshop on Integrating Usability and Accessibility in Information Assurance Education, Bowie Maryland, August 3, 2010.
- Keynote: *Building a Better Privacy Policy*, IEEE International Symposium on Policies for Distributed Systems and Networks, Fairfax, VA, July 21-23, 2010.
- Keynote: *Users do the darndest things: True stories from the CyLab Usable Privacy and Security Laboratory*, Financial Cryptography and Data Security 2010, Tenerife, Canary Islands, Spain, January 25-28, 2010.

- Keynote: *Users do the darndest things: True stories from the CyLab Usable Privacy and Security Laboratory*, 2009 Annual Computer Security Applications Conference, Honolulu, Hawaii, December 7-11, 2009.
- Keynote: *Teaching Johnny Not to Fall for Phish*. 6th Conference on Email and Anti-Spam. Mountain View, CA, July 18, 2009.
- Usable Privacy. National Academy of Sciences Usability, Security, and Privacy of Information Systems Workshop, July 21-22, 2009, Washington, DC.
- *You've Been Warned*. Security and Human Behavior, Boston, MA, June 11-12, 2009.
- *The Human in the Loop*. RSA 2009, San Francisco, CA, April 22, 2009.
- *The Human in the Loop*. Information Security Best Practices 2009, Philadelphia, PA, January 29-30, 2009.
- *How to Foil Phishing Scams*, Project Olympus Show and Tell, Carnegie Mellon University, January 21, 2009.
- Keynote: *You've Been Warned: Why Nobody Pays Any Attention to Computer Security Warnings (And How We Might Change That)*. Computer Science 2008: student research conference, Cambridge, UK, December 15, 2008.
- Leveraging the "Teachable Moment": APWG CMU Phishing Education Landing Page Program. APWG eCrime Researchers Summit. Atlanta, GA, October 15, 2008.
- *Visualization and Semantics to Support Fast and Accurate Policy Authoring*, NSF Workshop on Assurable and Usable Security Configuration, Fairfax, VA, 11-12 August 2008.
- *Online Shoppers Will Pay More for Privacy: Results from Empirical Research*. International Association of Privacy Professionals (IAPP) Privacy Summit, Washington, DC, March 28, 2008.
- *Information Security Education: A Carnegie Mellon Perspective*, 7th Semi-Annual Fidelity Information Security Briefing, Boston, MA, 30 January 2008.
- *Usable Security*, CA, Pittsburgh, 29 November 2007.
- *Making Privacy Disclosures to Consumers More Usable*, Federal Trade Commission Behavioral Advertising Town Hall, 2 November 2007.
- *Supporting Trust Decisions Research at Carnegie Mellon*, 2007 Anti-Phishing Working Group General Members Meeting, Pittsburgh, PA, 2-3 October 2007.
- *Usable Storage Security*, 2007 Storage Networking Industry Association Summer Security Summit, Pittsburgh, PA, 30 May - 1 June 2007.
- *Phishing Phish: How accurate are today's toolbars? What hope for training users?* 2006 Anti-Phishing Working Group General Meeting, Orlando, Florida, 14-15 November 2006.
- Keynote: *Inexplicable Indicators and Puzzling Pop-ups: Security Software From an End User Perspective*, Eighth International Conference on Information and Communications Security (ICICS '06), Raleigh, North Carolina, 4-7 December 2006.
- *Towards Usable Web Privacy and Security*, 6th Annual Privacy and Security Workshop, Toronto, Canada, 3-4 November, 2005.
- *Hey, That's Personal!*, 10th International Conference on User Modeling (UM'05), Edinburgh, Scotland, UK, 24-29 July 2005.
- *Scrubbing Stubborn Data*, 2nd Storage Networking Industry Association Security Summit, Pittsburgh, PA, 1-2 June 2005.
- Keynote: *Towards Usable Web Privacy and Security*, The 14th International World Wide Web Conference (WWW2005), Chiba, Japan, 10-14 May 2005.
- *Technical Trends in Privacy*, MITRE Privacy Technical Exchange, McLean, VA, 19 April 2005.
- Keynote: *Usable Privacy and Security*, Intel Corporation Forum: Usable Privacy When Privacy is Ubiquitous, Hillsboro, OR, 2 March 2005.
- Keynote: *How Your Dog Can Publish Your Secrets Anonymously and Why There's Probably Nothing You Can Do About It*. Fifth International Workshop on the Web and Databases (WebDB 2002), Madison, Wisconsin, June 6, 2002.
- *P3P and Privacy Bird*. Workshop on the Relationship between Privacy and Security, Pittsburgh, PA, May 29-30, 2002.
- *Online Privacy: Promise or Peril?* 2001 USENIX Annual Technical Conference, Boston, MA, 25-30 June 2001.
- Keynote: *Online Data Privacy Trends*. Association of Corporate Travel Executives (ACTE) Executive Forum, New York, NY, January 16, 2001.

- *Overview of Online Privacy-Enhancing Technologies*. NTIA Online Technologies Workshop and Technology Fair, Washington, DC, September 19, 2000.
- *Privacy Implications of Online Data Collection*, DIMACS Workshop: Data Processing on the Web: A Look into the Future, Piscataway, NJ, 6-7 March 2000.
- *Tracks on the web and a grammar for personal privacy*, Individual Privacy and Information Policy: A Policy and Research Issues Conference, Rutgers University, New Brunswick, NJ, 14 April 1999.
- The Platform for Privacy Preferences Project: Facilitating Individual Control Over Personal Information Flow Online, Human Computer Interaction Consortium Workshop, Winter Park, Colorado, 6 March 1998.
- *The Technology Tool Kit*, Internet Online Summit: Focus on Children, Washington, DC, 2 December 1997.
- *Making the Internet Safe, Fun, and Profitable*, International Symposium of Computing Technology (EI@TEC97), Torreon, Coahuil, Mexico, 17 October 1997.
- *User Empowerment Techniques to Address Online Privacy Concerns*, DIMACS Workshop on Massive Data Sets in Telecommunications, Piscataway, NJ, 14 October 1997.
- *The Future of Privacy*, DIMACS Research and Education Institute, Piscataway, NJ, 3 August 1997.
- *Making it Safe, Fun, and Profitable to do Business on the Internet*, Sonya Kovalevsky Day 97, Montgomery College Mathematics Department, Rockville, MD, 18 April 1997.

SEMINARS & COLLOQUIA

- *The Art of Privacy*, Carnegie Mellon CyLab Seminar Series, February 9, 2015.
- *The continuing quest for secure and usable passwords*, Google-UMD Cybersecurity Seminar, University of Maryland, College Park, MD, February 27, 2014.
- *Privacy Nudges and Self-Censorship on Social Media*, GVU Brown Bag Seminar, Georgia Tech, Atlanta, GA, November 21, 2013.
- *Privacy Nudges and Self-Censorship on Social Media*, Carnegie Mellon CyLab Seminar Series, October 7, 2013.
- *Privacy Nudges for Social Media*, PARC Privacy Lunch, Palo Alto, CA, June 26, 2013.
- *Privacy Nudges for Social Media*, Facebook, Menlo Park, CA, June 26, 2013.
- Necessary But Not Sufficient: Standardized Mechanisms for Privacy Notice and Choice, Harvard Center for Research on Computation and Society, May 6, 2013.
- *Security, Privacy, and Usability: Better Together*, Williams College, Class of 1960 Scholars Lecture in Computer Science, Williamstown, MA, October 25, 2012.
- Spoofing Operating System Security Interfaces to Study User Security Behaviors, Carnegie Mellon CyLab Seminar Series, October 22, 2012.
- *Are Privacy Policies and Online Privacy Tools Really Protecting our Privacy?* Pugwash Ethics and Technology Lecture, Carnegie Mellon University, September 20, 2012.
- *Security, Privacy, and Usability: Better Together*, National Science Foundation WATCH Series, Arlington, VA, April 19, 2012.
- *Why Johnny Can't Opt-Out*, Microsoft, Redmond, WA, February 27, 2012.
- *Designing Secure Systems that People Can Use*, Carnegie Mellon ECE Grad Seminar Series, January 26, 2012.
- *15 Years of Privacy Notice and Choice*, Carnegie Mellon CyLab Seminar Series, October 2, 2011.
- "I regretted the minute I pressed share": A study of Facebook Regrets, Google, Mountain View, CA, June 29, 2011.
- *Standardizing Privacy Notices: Privacy Taxonomy, Privacy Nutrition Labels, and Computer-Readable Policies*. University of California Berkeley Center for Law and Technology, 4th Annual Privacy Lecture, Berkeley, California, February 17, 2011.
- *Building a Better Privacy Policy*. Carnegie Mellon, University Lecture Series, February 7, 2011.
- *Building a Better Privacy Policy*. Carnegie Mellon University Human Computer Interaction Institute Seminar Series, October 6, 2010.
- *Usable Privacy and Security*. University of Toronto Identity, Privacy and Security Institute Lecture Series, Toronto Canada, November 23, 2009.
- *Teaching Johnny Not to Fall for Phish*. Carnegie Mellon CyLab Seminar Series, March 2, 2009.

- You've Been Warned: Why Nobody Pays Any Attention to Computer Security Warnings (And How We Might Change That). Carnegie Mellon University Human Computer Interaction Institute Seminar Series, February 11, 2009.
- Teaching Johnny Not to Fall for Phish. University College London Centre for Security and Crime Science, London, UK, December 16, 2008.
- A Framework for Reasoning About the Human in the Loop, Google, Mountain View, CA, September 15, 2008.
- *Inexplicable Indicators and Puzzling Pop-ups: Security Software From an End User Perspective*, Pennsylvania State Information Sciences and Technology Research Seminar Series, 30 March 2007.
- *Searching for Privacy*, Microsoft Research, Redmond, WA, 21 July 2006.
- *Searching for Privacy*, America OnLine, Dulles, VA, 13 January 2006.
- *Towards Usable Web Privacy and Security*, University of Pittsburgh Computer Science Colloquium Series, 19 October 2005.
- *Towards Usable Web Privacy and Security*, Carnegie Mellon University Human-Computer Interaction Institute Seminar, 7 September 2005.
- *Towards Usable Web Privacy and Security*, University of Pittsburgh Laboratory of Education and Research in Security Assured Information Systems Seminar Series, 2 September 2005.
- Making Privacy Visible: The Privacy Bird P3P User Agent and Beyond, Intel Research Seattle, 13 April 2005.
- *User Interfaces for Privacy: Design and Evaluation of the AT&T Privacy Bird P3P User Agent*, University of Michigan Socio-Technical Infrastructure for Electronic Transactions (STIET) Research Seminar, 10 March 2005.
- *Usable Privacy and Security Research at CMU*. IBM Watson Research, Hawthorne, New York, February 9, 2005.
- User Interfaces for Privacy: Design and Evaluation of the AT&T Privacy Bird P3P User Agent. IBM Watson Research, Hawthorne, New York, March 28, 2003.
- *Developing Online Privacy Standards: A View From the Trenches*. New York University Stern School of Business Information Systems Research Seminar, New York, October 11, 2001.
- *Online Privacy: What are People So Concerned About and What is Being done About It?* University of Virginia Department of Computer Science "Top Gun" Distinguished Lecture Series, Charlottesville, Virginia, January 24, 2001.
- Online Privacy: What are People So Concerned About and What is Being Done About It? Princeton ACM/IEEE Computer Society meeting, Princeton, NJ, December 14, 2000.
- Online Privacy: What are People So Concerned About and What is Being Done About it?, North Carolina State University, March 24, 2000.
- Many Lessons Later: The Platform for Privacy Preferences and What We've Learned About Designing Social Protocols, Rensselaer Polytechnic Institute, Troy, NY, 11 November 1999.
- *Privacy and Commerce*, Raymond Walters College Community Conversations series on Privacy in America, Cincinnati, OH, 9 February 1999.
- *The Platform for Privacy Preferences Project*, Internet Developer/Technology Group, San Jose, CA, 15 October 1998.
- *Electronic voting: theory and practice*, Royal Melbourne Institute of Technology, Melbourne, Australia, 20 April 1998.
- The Platform for Privacy Preferences Project and Unsolicited Commercial Email, IBM Watson Research, Hawthorne, New York, 16 December 1997.
- *Electronic Voting: Representative Democracy in the Information Age*, Webster University Department of Philosophy, St. Louis, MO, 17 September 1996.

TUTORIALS

- *Certified Information Privacy Professional/IT Training Course*, International Association of Privacy Professionals Privacy Academy, Boston, MA, September 16, 2009.
- *Machine Readable Privacy Policies and P3P*. International Association of Privacy Professionals Fourth Annual Privacy and Data Security Summit, Washington, DC, February 18, 2004.
- *P3P Introduction and Practical Solutions*. International Association of Privacy Professionals Third Annual Privacy and Data Security Summit, Washington, DC, February 26-28, 2003.

- *Internet Privacy and P3P*, Ninth International World Wide Web Conference (WWW9), Amsterdam, May 15, 2000.

PANELS

- *Improving Authentication: Moving Beyond the Password*, White House Summit on Cybersecurity and Consumer Protection, Palo Alto, CA, February 13, 2015.
- Capitol Hill briefing on privacy and security in a connected age (hosted by NSF and IEEE-USA), Washington, DC, October 30, 2014.
- Capitol Hill briefing on mobile device privacy and cyber security (hosted by Congresswoman Sheila Jackson Lee and CMU CyLab), Washington, DC, October 30, 2014.
- *Electronic Privacy and Surveillance*. CHI 2014, Toronto, CA, April 28, 2014.
- *Who Sets the Privacy Bar?* Symposium on Usable Privacy and Security 2013, Newcastle, UK, July 26, 2013.
- Leaders in Science & Technology Policy: a cross-discipline forum with campus experts, Carnegie Mellon University, April 2, 2013.
- David vs. Goliath: The Global Fight for Digital Privacy, Social Media Week, New York, NY, February 19, 2013.
- *Consumer Attitudes About and Choice with Respect to Comprehensive Data Collection*, The Big Picture: Comprehensive Data Collection, Federal Trade Commission Workshop, Washington, DC, December 6, 2012.
- *Behavioral Economics and Privacy Nudging*, For Your Eyes Only: Privacy, Empowerment and Technology in the Context of Social Networks, Brussels, Belgium, November 30, 2012.
- *The Private Sector and Emerging Technology*, Ohio State Law Journal Symposium: The Second Wave of Global Privacy Protection, Columbus, OH, November 16, 2012.
- *Mobile Privacy Disclosures*, In Short: Advertising and Privacy Disclosures in a Digital World. Federal Trade Commission Workshop, Washington, DC, May 30, 2012.
- *Sex, Lies and Cookies: Web Privacy EXPOSED!* South by Southwest, Austin, TX, March 12, 2012.
- *Personal Privacy*, National Academy of Sciences Workshop on Alerts and Warnings Using Social Media: Current Knowledge and Research Needs, Irvine, CA, February 28-29, 2012.
- Privacy and User Awareness: Self-regulation, privacy education and granular controls, US China Internet Industry Forum, Washington, DC, December 7, 2011.
- *The Battle Over the Behavioral Advertising Choice Mechanisms*, Symposium On Usable Privacy and Security, Pittsburgh, PA, July 22, 2011.
- *Company-Based Approaches to Protect Privacy*, Federal Communications Commission Forum: Helping Consumers Harness the Potential of Location-Based Services, Washington, DC, June 28, 2011.
- *Information Networking: Privacy, Security & Mobility*, Congressional Briefing on Cyber Security, Washington, DC, June 21, 2011.
- *Controversies Surrounding Online Behavioral Advertising*, AMA marketing and public policy conference, Washington, DC, June 3, 2011.
- *Evolving Values Regarding Locational Privacy*, Fifth Annual Law & Information Society Symposium: Mobile Devices, Location Technologies & Shifting Values, New York, NY, March 25, 2011.
- *What's New in Consumer Privacy Research?* IAPP Privacy Summit, Washington, DC, March 11, 2011.
- *Privacy nudges: Online privacy tools and add-ons*, 32nd International Conference of Data Protection and Privacy Commissioners, Jerusalem, Israel, October 27, 2010.
- *Information Security, Privacy & Risk Management: From Research to Practice*, 8th Annual Executive Women's Forum Conference, Scottsdale, Arizona, October 22, 2010.
- *Referee's Dilemma: How to Assess Usable Security Research*, Usable Security Experiment Research Reports Workshop, Redmond, WA, July 14, 2010.
- *Solving the Access-Control Puzzle: Finding the Pieces and Putting Them Together*, ACM Symposium on Access Control Models and Technology, Pittsburgh, PA, June 9-11, 2010.
- *Nuts & Bolts of Online Privacy, Advertising, Notice & Choice*, The Progress & Freedom Foundation Capitol Hill Briefing, Washington, DC, May 24, 2010.

- *Locating Your Privacy*, State of the Mobile Net Conference, Washington, DC, April 21, 2010.
- *Security and Privacy?* INI 20th Anniversary Panel, Pittsburgh, PA, April 17, 2010.
- *Architecture Is Policy: The Legal and Social Impact of Technical Design Decisions*, Electronic Frontier Foundation Panel, Pittsburgh, PA, March 8, 2010.
- *Towards a code of ethics for computer security research*, Workshop on Ethics in Computer Security Research, Tenerife, Canary Islands, January 28, 2010.
- *Consumer Expectations and Disclosures*, Federal Trade Commission Exploring Privacy Roundtable, Washington, DC, December 7, 2009.
- *Software Engineering for Dependable Systems*, Carnegie Mellon Portugal Conference, June 22, 2009, Porto, Portugal.
- Panelist: *Security and Privacy in the Cloud*, CERT Technical Symposium, Pittsburgh, PA, 11-12 March 2009.
- Panelist: *Methodology*, Workshop on Security and Human Behaviour (SHB 2008), Boston, MA, June 30-July 1, 2008.
- Panelist: *Does User Education Work?* APWG eCrmine Researchers Summit, Pittsburgh, PA, 4-5 October 2007.
- *Strategies for Infusing Code with Values*, The 15th Annual Conference on Computers, Freedom and Privacy, 14 April 2005, Seattle, WA.
- *Cyberspace Law and E-Commerce Law*, Where IP Meets IT: Technology and the Law Symposium, University of Pittsburgh School of Law, 18 March 2005.
- *Electronic Voting*. NSF/Harvard Symposium on Voting and Vote Counting. Boston, April 13, 2004.
- *Privacy at Your Desktop*. Privacy in Cyberspace: New Challenges for Higher Education, Rutgers University, New Brunswick, NJ, March 18, 2002.
- *Privacy and Security Standards*. Privacy 2001 Conference, Cleveland, Ohio, October 3, 2001.
- *Online Voting: Systems and Issues*. Conference on Democracy and the Internet in an Enlarging Europe, New York, NY, March 30, 2001.
- *Introduction to Privacy & Security Issues*. The Mobile Wireless Web, Data Services and Beyond: Emerging Technologies and Consumer Issues, Washington, DC, December 12, 2000.
- *Implications for Fair Information Practice Principles*. NTIA Online Technologies Workshop and Technology Fair, Washington, DC, September 19, 2000.
- *Getting Involved in Technical Standards Organizations*. Grace Hopper Celebration of Women in Computing, Cape Cod, Massachusetts, September 14, 2000.
- *Building Trust: Opt in or Opt out?* The Global Privacy Summit, Washington, DC, September 13, 2000.
- *Online Voting: Will the Laptop Replace the Voting Booth?*, Congressional Internet Caucus Panel Discussion, Washington, DC, September 13, 2000.
- *Are We Ready for Internet Voting?* Voting Integrity 2000, Washington, DC, April 1, 2000.
- *Anonymity and Identity in Cyberspace*, Computers, Freedom and Privacy 1999, Washington, DC, 7 April 1999.
- ACM Computer and IT Policy Briefing for the 106th Congress, Washington, DC, 5 March 1999.
- *Privacy and Data Mining*, The Fourth International Conference on Knowledge Discovery and Data Mining, New York City, 29 August 1998.
- *Technologies* panel, Public Meeting on Internet Privacy, U.S. Department of Commerce, Washington, DC, 24 June 1998.
- *Laws, self-regulation, and P3P: Will W3C's privacy platform help make the Web safe for privacy?* International World Wide Web Conference, Brisbane, Queensland, Australia, 14-18 April 1998.
- *Internet Privacy*, A Briefing by the Advisory Committee of the Congressional Internet Caucus, Washington, DC, 18 April 1997.
- Computer Ethics Institute 5th National Computer Ethics Conference -- *Cybercivics 101: the Relevance of Representative Democracy in the Information Age*, Brookings Institution, Washington, DC, 10 October 1996.
- *Policy Implications of Privacy Technology*, Sixth Conference on Computers, Freedom and Privacy, Cambridge, Massachusetts, 27-30 March 1996.

GUEST EDITORSHIPS

- Guest editor, *Communications of the ACM* special section on Internet privacy, February 1999
- Special section editor, *The Information Society* special section on CFP2000, May-June 2002
- Special section editor, *IEEE Security & Privacy* special section on usability & security, September/October 2004

EXPERT TESTIMONY AND REPORTS

- Testimony before the United States House of Representatives, Energy and Commerce Committee Subcommittee on Communications, Technology and the Internet, and Subcommittee on Commerce, Trade, and Consumer Protection, Hearing on The Collection and Use of Location Information for Commercial Purposes, February 24, 2010.
- Testimony before the Commission on Online Child Protection (COPA), Richmond, VA, June 20, 2000.
- Expert witness in challenges to Internet “harmful to minors” laws: *Cyberspace v. Engler* (Michigan), 1999; *PSINet v. Chapman* (Virginia), 2000; *American Booksellers Fdn. v. Dean* (Vermont), 2002; *Bookfriends, Inc. v. Taft* (Ohio), 2002; *Southeast Booksellers Assoc. v. McMaster* (South Carolina), 2004; *ACLU v. Gonzales*, 2006

CONTRACT AND GRANT SUPPORT

MACRO: Models for Enabling Continuous Reconfigurability of Secure Missions

PI: Lorrie Cranor (Co-PIs: Lujo Bauer, Nicolas Christin, Coty Gonzalez)

Army Research Lab, 09/01/2013 – 08/31/2018, \$3,246,573

Towards Effective Web Privacy Notice And Choice: A Multi-Disciplinary Perspective

PI: Norman Sadeh (Co-PIs: Lorrie Cranor, Alessandro Acquisti, Travis Breaux, Noah Smith, Joel Reidenberg, Aleecia McDonald)

National Science Foundation, 09/01/2013 – 08/31/2017, \$2,299,762

USE: User Security Behavior

PI: Lorrie Cranor, Rahul Telang, Alessandro Acquisti and Nicolas Christin

National Security Agency, 2.5 years beginning September 2012, \$780,000

Flash Cookie Settlement

PI: Lorrie Cranor

Clearspring et al, unrestricted gift, October 2011, \$322,795.61

An Empirical Study of Text-Based Passwords and Their Users

PI: Lujo Bauer (Co-PIs: Lorrie Cranor and Nicolas Christin)

National Science Foundation, 09/01/2011 – 08/31/2014, \$493,531

Effective Computer Security Warning Dialogs

PI: Lorrie Cranor

National Science Foundation, 09/01/2011 – 08/31/2014, \$500,000

An Empirical Investigation of the Usability and Effectiveness of Opt-Out Tools for Behavioral Advertising and Online Tracking

Co-PIs: Lorrie Cranor, Yang Wang

The Privacy Projects, unrestricted gift, February 2011, \$68,000

Google Buzz Privacy Settlement

PI: Lorrie Cranor

Google, unrestricted gift, 2011, \$178,920

User Perceptions of Advertising Landing Page Quality

PI: Lorrie Cranor

Google, unrestricted gift, December 2010, \$70,000

Nudging Users Towards Privacy

PI: Alessandro Acquisti (Co-PIs: Lorrie Cranor, Norman Sadeh)

National Science Foundation, 60 months beginning July 2010, \$2,678,128

Study of password complexity rules and their contribution to password entropy

PI: Lorrie Cranor

Microsoft Research, unrestricted gift, July 2010, \$300,000

Usability Analysis of Forensic Tools and Instrumentation Case Study

PI: Lorrie Cranor (Co-PIs: Nicolas Christin, Alessandro Acquisti, Rahul Telang)

Naval Post-Graduate School, 15 months beginning June 2010, \$150,000

End-User Privacy Management for Cross-System Personalization

PI: Lorrie Cranor

Alcatel-Lucent, unrestricted gift, May 2010, \$125,000

Privacy Nudges

PI: Lorrie Cranor (Co-PIs: Alessandro Acquisti and Norman Sadeh)
Google, unrestricted gift, January 2010, \$400,000

User-Controllable Policy Learning

PI: Norman Sadeh (Co-PI: Steve Bellovin, Senior Personnel: Lorrie Cranor)
National Science Foundation, 10/01/2009 – 09/30/2013, \$723,789

IGERT Usable Privacy and Security

PI: Lorrie Cranor (Co-PIs: Norman Sadeh, Jason Hong, Lujo Bauer, Julie Downs)
National Science Foundation, 06/01/2009 – 07/31/2014, \$2,923,591

Web Security and Privacy: Weaving Together Technology Innovation with Human and Policy Considerations

PI: Norman Sadeh (Co-PIs: Lorrie Cranor, Jason Hong, Alessandro Acquisti, Jon Peha)
CMU Portugal Information and Communications Technologies Institute, 36 months beginning August 2009, approximately \$900,000

Usable Security for Digital Home Storage

PI: Lujo Bauer (Co-PIs: Lorrie Cranor and Greg Ganger)
National Science Foundation, 4 years beginning September 2008, \$1,000,000

A Mental Models Approach to Ethical Decision Making

PI: Julie Downs (Co-PI: Peter Madsen, Senior Personnel: Lorrie Cranor)
National Science Foundation, 2 years, \$299,987

Usable Cyber Trust Indicators

PI: Lorrie Cranor (Co-PI: Julie Downs)
National Science Foundation, 3 years beginning September 2008, \$386,665

Empowering Lay Users to Control Complex Privacy and Communication Policies

Norman Sadeh (Co-PIs: Lorrie Cranor and Jason Hong)
Microsoft Research (CMU Center for Computational Thinking), 1 year beginning September 2008, \$100,000

Empowering Mobile Users to Effectively Control their Privacy in a Friend Finder Application: Scaling up to a Campus-wide Pilot

PI: Norman Sadeh (Co-PI: Lorrie Cranor, Jason Hong)
CMU CyLab, 2 years beginning July 2008, \$280,000

Privacy Decision Making

PI: Lorrie Cranor (Co-PI: Alessandro Acquisti)
CMU CyLab, 2 years beginning July 2008, \$235,000

Securing the Digital Home

PI: Lujo Bauer (Co-PI: Lorrie Cranor, Greg Ganger, Adrian Perrig)
CMU CyLab, 2 years beginning July 2008, \$300,000

Saferide Security

PI: Jim Morris (Co-PI: Lorrie Cranor)
CMU CyLab, 1 year beginning July 2008, \$75,000

Empirical Study of the Impact of Privacy Information in Search Results

PI: Lorrie Cranor (Co-PI: Alessandro Acquisti)
Microsoft Research, unrestricted gift, March 2008, \$60,000

Anti-Phishing Cooperative Research Project Carnegie Mellon University and Portugal Telecom
PI: Lorrie Cranor (Co-PIs: Alessandro Acquisti, Jason Hong, Norman Sadeh)
CMU Portugal Information and Communications Technologies Institute, 2 years beginning September 2007, \$245,208

Effective Trust Indicators
PI: Lorrie Cranor
CMU CyLab, 1 year beginning July 2007, \$172,889

User-Controllable Security and Privacy for Pervasive Computing
PI: Norman Sadeh (Co-PIs: Lujjo Bauer, Lorrie Cranor, Jason Hong, Bruce McLaren)
National Science Foundation, 4 years beginning September 2006, \$1,100,000

Open Collaborative Research Initiative
PI: Lorrie Cranor
IBM, 2 years beginning September 2006, \$400,000

PrivacyFinder: Helping Internet users find web sites that respect their privacy
PI: Lorrie Cranor
PA Cyber Security Commercialization Initiative, 6 months (January-June 2006), \$7,500

Searching for Privacy
PI: Lorrie Cranor
CMU CyLab, 1 year beginning August 2006, \$85,000

Curriculum Development: Usable Privacy and Security
PI: Lorrie Cranor (Co-PIs: Jason Hong, Michael Reiter)
Microsoft, unrestricted gift, January 2006, \$50,000

Supporting Trust Decisions
PI: Lorrie Cranor (Co-PIs: Alessandro Acquisti, Julie Downs, Jason Hong, Norman Sadeh)
National Science Foundation, 3 years, beginning September 2005 [+ 2 years no cost extension], \$1,650,000

Preventing Semantic Attacks
PI: Lorrie Cranor (Co-PIs: Alessandro Acquisti, Julie Downs, Jason Hong, Norman Sadeh)
CMU CyLab, 2 years, beginning August 2005, \$221,024

Privacy and Usability in Pervasive Computing Environments
PI: Norman Sadeh (Co-PIs: Lujjo Bauer, Lorrie Cranor, Jason Hong, Bruce McLaren)
CMU CyLab, 2 years, beginning August 2005, \$268,867

Establishment of CMU Usable Privacy and Security (CUPS) Laboratory
PI: Lorrie Cranor
CMU CyLab, 1 year (2004-05), \$74,032

CONTRIBUTIONS TO EDUCATION

MSIT-PRIVACY ENGINEERING MASTERS PROGRAM

The Master of Science in Information Technology—Privacy Engineering (MSIT-PE) degree is a one-year program designed for computer scientists and engineers who wish to pursue careers as privacy engineers or technical privacy managers, playing a critical role in building privacy into future products, services, and processes. This first-of-its kind program admitted its first class in Fall 2013. The 12-month program includes two semesters of courses and concludes with a summer-long learning-by-doing, capstone project, where students are brought in as privacy consultants to work on client projects.

I worked with a colleague, Norman Sadeh, to **develop the curriculum** for this program and **propose the program for college and university approval** in 2012. Since the launch of the program in Fall 2013, I have served as **co-director** of the program with Norman Sadeh. I have been involved in curriculum design, student recruiting, admissions, fundraising, budgeting, faculty recruiting, course scheduling, teaching assignments, student advising, industry outreach, and program operations.

CARNEGIE MELLON USABLE PRIVACY & SECURITY DOCTORAL TRAINING PROGRAM

The Carnegie Mellon Usable Privacy and Security (CUPS) Doctoral Training program offers PhD students at CMU a fundamentally new, cross-disciplinary training experience that prepares them to produce the key research advances necessary to reconcile ostensible tensions between security, privacy and usability, moving away from an “either-or” view of these goals to a deeper understanding of underlying tradeoffs and eventually towards solutions where security, privacy and usability are configured to reinforce each other. The goal of this program is to serve as a catalyst to shape the field of usable privacy and security by developing and training a new generation of researchers in methodologies, principles, and approaches that can be applied across systems and applications, in contrast to one-off solutions. This program is supported by an NSF IGERT grant

I was **PI** on the NSF IGERT grant that funded this program in 2009 and have served as **director** of this program from its launch. I proposed the curriculum for the program and am responsible for admissions, outreach, and program operations. I run a weekly CUPS seminar series that is attended not only by program participants, but also a large number of faculty and students from throughout the university and nearby institutions.

PRIVACY MODULE FOR MSIT-EBUSINESS TECHNOLOGY MASTERS PROGRAM

I developed a two-week privacy course module for CMU’s MSIT-eBusiness Technology masters program. The module features a team project that simulates the experience of privacy consultants brought in to work with a large company. I developed the privacy module in 2006 and have updated it and taught it every year from 2006 to 2014.

PRIVACY POLICY, LAW, AND TECHNOLOGY COURSE

This course focuses on policy issues related to privacy from the perspectives of governments, organizations, and individuals. We begin with a historical and philosophical study of privacy and then explore recent public policy issues. We examine the privacy protections provided by laws and regulations, as well as the way technology can be used to protect privacy. We emphasize technology-related privacy concerns and mitigation, for example: social networks, smartphones, behavioral advertising (and tools to prevent targeted advertising and tracking), anonymous communication systems, big data, and drones. The course is open to all graduate students and advanced undergraduate students who have technical backgrounds.

I developed this course in 2004 and have taught it eight times between 2004 and 2014. This was one of the first privacy courses to be offered to computer science or engineering students.

USABLE PRIVACY AND SECURITY COURSE

This course is designed to introduce students to a variety of usability and user interface problems related to privacy and security and to give them experience in designing studies aimed at helping to evaluate usability issues in security and privacy systems. The course is suitable both for students interested in privacy and security who would like to learn more about usability, as well as for students interested in usability who would like to learn more about security and privacy. Much of the course is taught in a graduate seminar style in which all students are expected to do a weekly reading assignment and each week different students prepare a presentation for the class. Students also work on a group project throughout the semester. The course is open to all graduate students and advanced undergraduate students who have technical backgrounds.

I developed this course with two colleagues, Michael Reiter and Jason Hong, in 2006 and have taught it seven times between 2006 and 2015. This is one of the first usable privacy and security courses to be offered anywhere. We have made our syllabus and curriculum materials available online to be used as a model for other courses.

COMPUTERS AND SOCIETY COURSE

In this course students discuss the social impacts of computing technology. The course provides a brief introduction to ethics and to the history of computing and the Internet. It focuses on a number of areas in which computers and information technology are having an impact on society including privacy, freedom of speech, intellectual property, work, distribution of wealth, and the environment. Current issues that are discussed include electronic voting, spyware, spam, and intellectual property issues associated with digital content distribution. This course is intended for freshmen and sophomore students from across the university. The course has been renamed Ethics and Policy Issues in Computing.

I developed this course in 2005 and taught in three times between 2005 and 2007.

STUDENT ADVISING

COMPLETED PHD STUDENTS

Richard Shay, May 2015

- COS Thesis title: Creating Usable Policies for Stronger Passwords with MTurk
- Current employer: Carnegie Mellon University

Pedro Giovanni Leon, December 2014

- EPP Thesis title: Privacy Notice and Choice in Practice
- Current employer: Stanford University

Rebecca Balebako, December 2014

- EPP Thesis title: Identifying and Communicating the Risks of Smartphone Data Sharing
- Current employer: RAND

Cristian Bravo-Lillo, May 2014

- EPP Thesis title: Improving Computer Security Dialogs: An Exploration of Attention and Habituation
- Current employer: RSEduca

Patrick Kelley, May 2013

- COS Thesis title: Designing Privacy Notices: Supporting User Understanding and Control
- Current employer: University of New Mexico

Kami Vaniea, September 2012

- CSD Thesis title: Proximity Information Displays for Access Control
- Current employer: University of Indiana

Aleecia McDonald, September 2010

- EPP Thesis title: Footprints Near the Surf: Individual Privacy Decisions in Online Contexts
- Current employer: Stanford University

Janice Tsai, August 2009

- EPP Thesis title: The Impact of Salient Privacy Information on Decision-Making
- Current employer: Microsoft Research

Serge Egelman, May 2009

- COS Thesis title: Trust Me: Design Patterns for Constructing Trustworthy Trust Indicators
- Current employer: University of California, Berkeley

Ponnurangam Kumaraguru, May 2009

- COS Thesis title: PhishGuru: A System for Educating Users about Semantic Attacks
- Current employer: Indraprastha Institute of Information Technology (IIIT), Delhi

Steve Sheng, September 2009

- EPP Thesis title: Phishing Countermeasures: A Policy Analysis
- Current employer: ICANN

Rob Reeder, July 2008

- CSD Thesis title: Expandable Grids: A user interface visualization technique and a policy semantics to support fast, accurate security and privacy policy authoring
- Current employer: Google

CURRENT PHD STUDENTS

Saranga Kumanduri

- Year Entered: 2009
- Area of study/thesis title: COS / Modeling the adversary to evaluate password strength with limited samples

Manya Sleeper

- Year Entered: 2010
- Area of study/thesis title: COS

Blase Ur

- Year Entered: 2011
- Area of study/thesis title: COS

Abigail Marsh

- Year Entered: 2013
- Area of study/thesis title: COS

Josh Tan

- Year Entered: 2014
- Area of study/thesis title: COS

M.S. THESES

Fumiko Noma, Password Creation Strategy, MSIT-IS 2014

Kai Wang (Jimmy Wong), Cross-Platform User Privacy Control, MSIS 2011

Hanan Hibshi, Usability of Digital Forensics Tools, MSISTM 2011

Ryan Mahon, PANAMA: Privacy Assured Name-Addressable Messaging Architecture For Unlinkable Instant Message Conversations, MSISTM 2005

Pei-Chao Weng, Issues of EPAL to P3P Conversion, MSIN 2004

Kenneth Chu, Issues of EPAL to P3P Conversion, MSIN 2005

M.S. OR PH.D. THESIS COMMITTEE SERVICE

Casey Canfield, Using Vigilance to Quantify Human Behavior for Phishing Risk, EPP PhD, 2015 (expected)

Ruogu Kang, Incognito Online: Why and How People Hide their Digital Traces, HCII PhD, 2015 (expected)

Eiji Hayashi, Uni-Auth: Building a Human-Centered Identity Management System, HCII PhD, 2015 (expected)

Michelle Mazurek, A Tag-Based, Logical Access-Control Framework for Personal Data Sharing, ECE PhD 2014

Shah Amani, Supporting Mobile Application Inspection through Automated Traversal and Intelligent Heuristics, ECE PhD 2014

Andrew Besmer, *Configuration of Application Permissions by Contextually Utilizing Information Flow*, PhD in Computing and Information Systems, University of North Carolina at Charlotte, 2013

Maritza Johnson, Toward Usable Access Control for End-users: A Case Study of Facebook Privacy Settings, PhD in Computer Science, Columbia University, 2012

Kursat Ozenc, Modes of Transitions: Developing Interactive Products & Service Systems For Harmony and Wellbeing, Design PhD 2011

Alexandre Mateus, Copyright Violation on the Internet: Extent and Approaches to Detection and Deterrence, EPP PhD 2011

Varun Dutt, Why do we prefer to delay actions to reduce our impact on climate change? EPP PhD 2011

Michael Tschantz, A Semantics of Purpose, CSD PhD 2011

Karen Tang, Sometimes Less is More": Exploring Privacy-Sensitive Disclosure Abstractions for Location-Aware Social Applications, HCII PhD 2010

Brandon Salmon, Putting home storage into Perspective, ECE PhD 2009

Cynthia Kuo, Error Reduction in Computer Security Applications, EPP PhD 2008

Elaine Newton, Design Strategies and Policy Initiatives for Data and Identity Protection: Balancing competing legitimate individual and societal interests, EPP PhD 2009

Eric Toan, Towards an Effective Attribute-Based Access Control Model, MSIT 2007

Patrick Feng, Designing a 'Global' Privacy Standard: Politics and Expertise in Technical Standards-Setting, Science and Technology Studies PhD 2002 Rensselaer Polytechnic Institute

MASTERS STUDENT INDEPENDENT STUDY PROJECTS ADVISED

Adam Durity, Passwords, Fall 2013 (MSIT-PE)

Pedro Giovanni Leon, Analyzing P3P compact policies, Spring 2010 (INI)

Jean-Pierre Arsenault, Usable home storage security, Spring 2009 (HCII)

Jong Gyu (Daniel) Lee, Usable home storage security, Spring 2009 (HCII)

Neha Atri, Security warnings, Fall 2008 (ECE)

Matthew Geiger, Anti-forensic privacy tools, Spring 2005 (MSPPM)

Braden Kowitz, Discovering information leaks on wireless networks, Spring 2005 (MHCI)

UNDERGRADUATE STUDENT INDEPENDENT STUDY PROJECTS ADVISED

Kelly Idouchi, Large-scale Analysis of Financial Privacy Disclosures, Fall 2012

Joseph Arasin, Releasing an Open-Source version of PrivacyBird, Spring 2006

Joseph Schwartz, The Effectiveness of Five Popular Anti-Phishing Toolbars, Fall 2005

OTHER

Kursat Ozenc, PhD Design student project, 2008-2009

Miki Sashikata, *Improving Privacy Policy Description Standard for Better Extensibility and Wider Adoption*, MSIT in Information Security, CyLab Japan 2006, project sponsor

UNIVERSITY SERVICE

UNIVERSITY SERVICE AND COMMITTEE WORK

- Full Board member, Institutional Review Board, 2014-2017
- Co-chair Cybersecurity and Privacy Education and Research (CAPER) Working Group, 2014-2015
- Member, Strategic Planning Committee: Focus Area 2 on Research, Creativity, Innovation and Entrepreneurship, 2014-2015
- External reviewer, Institutional Review Board, 2009-2014
- Member, Associate Vice Provost of Sponsored Programs Search Committee, 2013
- ISRI representative to Faculty Senate, 2004-2005

SCHOOL AND DEPARTMENT SERVICE AND COMMITTEE WORK

- Chair, ISR Faculty Hiring Committee, 2014-2015
- Member, EPP Department Head Search Committee, 2013-2014
- Member, CIT-CFA Committee, 2013-2014
- Member, EPP Admissions Committee, 2010-2011, 2013-2015
- Member, EPP Part B Qualifier Committee, 2011-2012
- Member, EPP Undergraduate Curriculum Review Committee, 2010-2012
- Implemented and administered new EPP online qualifier submission and grading system, 2006-2015
- Chair, ISR committee to explore new undergraduate program options, 2006-2008
- Organizer, ISR Seminar Series, 2004-2009
- Organizer, EPP IT Policy Group, 2005-2006
- Organized December 2006 ISR faculty summit, focused on undergraduate education

OTHER

- Pittsburgh Science and Technology Academy mentor for senior “executive experience” projects, 2013-2015
- Women@INI Faculty Advisor, 2006-2015
- CyLab Social Engineering Committee Chair, 2007-2015
- Pace Setters Committee, 2010-2014
- Co-chair, CyLab Privacy Interest Group, 2006-2007
- Lecturer in CMU CS4HS program for high school teachers, 2009-2010
- Lecturer in Andrews Leap program for high school students, 2013-2014
- Lecturer in CyLab Information Assurance Capacity Building Program (IACBP), 2006-2011
- Lecturer in CMU Osher Lifelong Learning Institute, 2009
- Steinbrenner Environmental Educator (participated in EAC seminars and developed environmental module for Computers and Society course, Spring 2005)