

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

Carnegie Mellon University, Pittsburgh, PA

Director and Bosch Distinguished Professor in Security and Privacy Technologies, CyLab Security and Privacy Institute, 2019-

FORE Systems University Professor of Computer Science and of Engineering & Public Policy, 2017-

Software and Societal Systems Department (S3D), School of Computer Science

Engineering & Public Policy Department, College of Engineering

- Founding Co-Director, Privacy Engineering masters program, 2013-
- Director, CyLab Usable Privacy and Security Laboratory, 2004-
- Affiliate faculty member in Heinz College, Human-Computer Interaction Institute, and Electrical and Computer Engineering Department
- Founding Co-Director, Collaboratory Against Hate: Research and Action Center, 2021-2023
- Associate Department Head, Engineering & Public Policy, 2017-2019
- Professor, July 2014 - August 2017
- Fellow, Frank-Ratchye STUDIO for Creative Inquiry, June 2012 - August 2013
- Associate Professor, July 2008 - July 2014 (tenured July 2011)
- Associate Research Professor, December 2003 - June 2008

US Federal Trade Commission, Washington, DC

Chief Technologist, January 2016 - January 2017

Wombat Security Technologies, Pittsburgh, PA

Co-founder and Chief Scientist, 2008-2011

Wombat is a security awareness training company that was acquired by Proofpoint in 2018

New York University Stern School of Business, New York, NY

Adjunct Assistant Professor of Information Systems, 2003

AT&T Labs-Research, Florham Park, NJ

Principal Technical Staff Member, 2001-2003

Senior Technical Staff Member, 1996-2001

Washington University in St. Louis, St. Louis, MO

Lecturer and Manager of the Student Staff, Computer Science Department, 1993-1996

Research Assistant, Medical Library, Advanced Technology Group, 1992-1993

PERSONAL

- Allegheny County, PA – election worker, 2004-2015, 2017-2019, 2021-2024
- Dynamoms Women's Soccer – founding commissioner, 2013-
- Dynamo Youth Soccer – age-level commissioner, 2009-2014; board member 2018-, VP, 2022-2023
- Pittsburgh Science and Technology Academy Parent Teacher Organization – founding president, 2013-2016; executive board member and webmaster, 2013-2024
- Hobbies: quilting, sewing, photography, yoga, soccer, music (flute, bass flute, piccolo, tenor sax)

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).
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. Florian Schaub and Lorrie Faith Cranor. Usable and Useful Privacy Interfaces. In **An Introduction to Privacy for Technology Professionals**, Travis D. Breaux, ed., IAPP (2020), 176-238. [Privacy Papers for Policy Makers Honorable Mention 2019]
6. Lorrie Faith Cranor, Blase Ur, and Manya Sleeper. Tracking and Surveillance. In **An Introduction to Privacy for Technology Professionals**, Travis D. Breaux, ed., IAPP (2020), 239-311.
7. Florian Schaub, Rebecca Balebako, Adam Durity, and Lorrie Faith Cranor. A Design Space for Effective Privacy Notices. **The Cambridge Handbook of Consumer Privacy**, Cambridge University Press (2018).
8. Lorrie Faith Cranor, Rebecca Balebako, Darya Kurilova, and Manya Sleeper. Privacy Illustrated. In **Deep Lab**, Deep Lab (2014).
9. Lorrie Faith Cranor, Manya Sleeper, and Blase Ur. Tracking and Surveillance. In **Introduction to IT Privacy: A Handbook for Technologists**, Travis D. Breaux, ed., IAPP (2014).
10. 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).
11. Lorrie Faith Cranor. Platform for Privacy Preferences Project (P3P). In Hossein Bidgoli, ed., **Handbook of Information Security**. John Wiley and Sons (2005).
12. 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]]
13. 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, (2003).
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. Lorrie Faith Cranor. Privacy Tools. In Helmut Baumler, ed. **E-Privacy: Datenschutz im Internet**. Vieweg & Sohn Verlagsgesellschaft (2000), 107-119.

20. 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.
21. 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 (1997), 185-191.

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22. Christopher Choy, Ellie Young, Megan Li, Lorrie Faith Cranor, and Jon M. Peha. (2024). Consumer-driven design and evaluation of broadband labels. *Telecommunications Policy*. <https://doi.org/10.1016/j.telpol.2024.102717>
23. Maggie Oates, Kyle Crichton, Lorrie Cranor, Storm Budwig, Erica J. L. Weston, Brigitte M. Bernagozzi, and Julie Pagaduan. (2022). Audio, video, chat, email, or survey: How much does online interview mode matter?. *PloS one*, 17(2), e0263876. <https://doi.org/10.1371/journal.pone.0263876>
24. Kyle Crichton, Nicolas Christin, and Lorrie Faith Cranor. 2021. How Do Home Computer Users Browse the Web? *ACM Trans. Web* 16, 1, Article 3 (February 2022), 27 pages. DOI:<https://doi.org/10.1145/3473343>
25. Verena Distler, Matthias Fassl, Hana Habib, Katharina Krombholz, Gabriele Lenzini, Carine Lallemand, Lorrie Faith Cranor, and Vincent Koenig. 2021. A Systematic Literature Review of Empirical Methods and Risk Representation in Usable Privacy and Security Research. *ACM Trans. Comput.-Hum. Interact.* 28, 6, Article 43 (December 2021), 50 pages. DOI:<https://doi.org/10.1145/3469845>
26. Cynthia E Schairer, Cynthia Cheung, Caryn Kseniya Rubanovich, Mildred Cho, Lorrie Faith Cranor, Cinnamon S Bloss, Disposition toward privacy and information disclosure in the context of emerging health technologies, *Journal of the American Medical Informatics Association*, 2 April 2019, <https://doi.org/10.1093/jamia/ocz010>.
27. Alessandro Acquisti, Idris Adjerid, Rebecca Balebako, Laura Brandimarte, Lorrie Faith Cranor, Saranga Komanduri, Pedro Giovanni Leon, Norman Sadeh, Florian Schaub, Many Sleeper, Yang Wang, and Shomir Wilson. 2017. Nudges for Privacy and Security: Understanding and Assisting Users' Choices Online. *ACM Comput. Surv.* 50, 3, Article 44 (August 2017), 41 pages.
28. Lorrie Faith Cranor, Pedro Giovanni Leon, Blase Ur. A Large-Scale Evaluation of U.S. Financial Institutions' Standardized Privacy Notices. *ACM Transactions on the Web (TWEB)* 10(3):17, 2016.
29. Richard Shay, Saranga Komanduri, Adam L. Durity, Phillip (Seyoung) Huh, Michelle L. Mazurek, Sean M. Segreti, Blase Ur, Lujo Bauer, Nicolas Christin, and Lorrie Faith Cranor. 2016. Designing Password Policies for Strength and Usability. *ACM Trans. Inf. Syst. Secur.* 18, 4, Article 13 (May 2016), 34 pages.
30. Rebecca Balebako, Cristian Bravo-Lillo, and Lorrie Faith Cranor; Is Notice Enough: Mitigating the Risks of Smartphone Data Sharing. *I/S: A Journal of Law and Policy for the Information Society*, 11(2) Summer 2015, 279-323.
31. Lorrie Faith Cranor, Candice Hoke, Pedro Giovanni Leon, and Alyssa Au. Are They Worth Reading? An In-Depth Analysis of Online Trackers' Privacy Policies. *I/S: A Journal of Law and Policy for the Information Society*, 11(2) Summer 2015, 325-404.
32. Joel R. Reidenberg, Travis D. Breaux, Lorrie F. Cranor, Brian French, Amanda Grannis, James T. Graves, F. Liu, A. M. McDonald, T. B. Norton, R. Ramanath, N. C. Russell, N. Sadeh, F. Schaub, Disagreeable Privacy Policies: Mismatches between Meaning and Users' Understanding. *Berkeley Technology Law Journal*, 30(1), May 2015, 39-88.
33. Y. Wang, P.G. Leon, X. Chen, S. Komanduri, G. Norcie, K. Scott, A. Acquisti, L.F. Cranor, N. Sadeh (2013): From Facebook Regrets To Facebook Privacy Nudges. *Ohio State Law Journal* 74(6):1307-1334.
34. 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.

35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. 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.
41. 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.] **[Information Systems Society and Information Systems Research 2012 Best Published Paper Award]**
42. 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.
43. 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.
44. Sarah Spiekermann and Lorrie Faith Cranor. Engineering Privacy. *IEEE Transactions on Software Engineering*, Vo. 35, No. 1, January/February, 2009, pp. 67-82. **[2010 Award for Outstanding Research in Privacy Enhancing Technologies, Runner Up]**
45. J. Karat, C.-M. Karat, E. Bertino, N. Li, Q. Ni, C. Brodie, J. Lobo, S. B. Calo, L. F. Cranor, P. Kumaraguru, and R. W. Reeder. 2009. Policy framework for security and privacy management. *IBM J. Res. Dev.* 53, 2 (March 2009), 242-255.
46. 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.]
47. 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.
48. 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.
49. 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.
50. 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.
51. 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.
52. 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.
53. 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.

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

REFEREED MAGAZINE ARTICLES

55. Pardis Emami-Naeini, Janarth Dheenadhayalan, Yuvraj Agarwal and Lorrie Faith Cranor, An Informative Security and Privacy “Nutrition” Label for Internet of Things Devices. *IEEE Security & Privacy*, 20(2), March-April 2022, 31-29. doi: 10.1109/MSEC.2021.3132398.
56. Florian Schaub, Rebecca Balebako and Lorrie Faith Cranor, Designing Effective Privacy Notices and Controls. *IEEE Internet Computing*, 21(3), May-June 2017, 70-77.
57. 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.
58. Simson L. Garfinkel and Lorrie Faith Cranor. Institutional Review Boards and Your Research. *Communications of the ACM*, June 2010, 38-40.
59. Matthew Geiger and Lorrie Faith Cranor. Scrubbing Stubborn Data: An evaluation of counter-forensic privacy tools. *IEEE Security & Privacy*, September/October 2006, 16-25.
60. Lorrie Faith Cranor. What Do They “Indicate”? Evaluating security and privacy indicators *ACM Interactions*, May/June 2006, 45-47.
61. Lorrie Faith Cranor. P3P: Making Privacy Policies More Useful. *IEEE Security and Privacy*, November/December 2003, 50-55.
62. Joseph Reagle and Lorrie Faith Cranor. The Platform for Privacy Preferences. *Communications of the ACM*, 42(2), February 1999, 48-55.
63. Lorrie Faith Cranor and Brian LaMacchia. Spam! *Communications of the ACM*, 41(8), August 1998, 74-83.

REFEREED CONFERENCE AND WORKSHOP PAPERS

64. Yanzi Lin, Jaideep Juneja, Eleanor Birrell, Lorrie Faith Cranor. Data Safety vs. App Privacy: Comparing the Usability of Android and iOS Privacy Labels. Proceedings on Privacy Enhancing Technologies, 2024 (2) 182-210. DOI <https://doi.org/10.56553/popets-2024-0047>
65. Elijah Bouma-Sims, Sanjnah Ananda Kumar, Lorrie Faith Cranor. Exploring the Privacy Experiences of Closeted Users of Online Dating Services in the US. Proceedings on Privacy Enhancing Technologies, 2024 (2) 160-181. DOI <https://doi.org/10.56553/popets-2024-0046>
66. Tianshi Li, Lorrie Faith Cranor, Yuvraj Agarwal, and Jason I. Hong. 2024. Matcha: An IDE Plugin for Creating Accurate Privacy Nutrition Labels. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 8, 1, Article 33 (March 2024), 38 pages. <https://doi.org/10.1145/3643544>
67. Pardis Emami-Naeini, Janarth Dheenadhayalan, Yuvraj Agarwal, and Lorrie Faith Cranor. 2023. Are consumers willing to pay for security and privacy of IoT devices? In Proceedings of the 32nd USENIX Conference on Security Symposium (SEC '23). USENIX Association, USA, Article 85, 1505–1522.
68. Andrea Gallardo, Chris Choy, Jaideep Juneja, Efe Bozkir, Camille Cobb, Lujo Bauer, and Lorrie Cranor. Speculative Privacy Concerns About AR Glasses Data Collection. Proceedings on Privacy Enhancing Technologies, 2023(4).
69. Jessica Colnago, Lorrie Cranor, and Alessandro Acquisti. Is There a Reverse Privacy Paradox? An Expository Analysis of Gaps Between Privacy Perspectives and Privacy-Seeking Behaviors. Proceedings on Privacy Enhancing Technologies, 2023(1).
70. Elijah Robert Bouma-Sims, Megan Li, Yanzi Lin, Adis Sakura-Lemessy, Alexandra Nisenoff, Ellie Young, Eleanor Birrell, Lorrie Faith Cranor, and Hana Habib. 2023. A US-UK Usability Evaluation of Consent Management Platform Cookie Consent Interface Design on Desktop and Mobile. CHI 2023. Article 163, 1–36.
71. Jane Im, Ruiyi Wang, Weikun Lyu, Nick Cook, Hana Habib, Lorrie Faith Cranor, Nikola Banovic, and Florian Schaub. 2023. Less is Not More: Improving Findability and Actionability of Privacy Controls for Online Behavioral Advertising. CHI 2023. Article 661, 1–33.
72. Hana Habib and Lorrie Faith Cranor. Evaluating the Usability of Privacy Choice Mechanisms. SOUPS 2022.

73. Jessica Colnago, Lorrie Faith Cranor, Alessandro Acquisti, and Kate Hazel Jain. Is it a concern or a preference? An investigation into the ability of privacy scales to capture and distinguish granular privacy constructs. SOUPS 2022. **[IAPP privacy award]**
74. Shikun Zhang, Yuanyuan Feng, Yaxing Yao, Lorrie Faith Cranor, and Norman Sadeh. How Usable Are iOS App Privacy Labels? Proceedings on Privacy Enhancing Technologies 2022(4).
75. Sarah Pearman, Ellie Young, and Lorrie Faith Cranor. User-friendly yet rarely read: A case study on the redesign of an online HIPAA authorization. Proceedings on Privacy Enhancing Technologies 2022(3):558-581.
76. Tianshi Li, Kayla Reiman, Yuvraj Agarwal, Lorrie Faith Cranor, and Jason I. Hong. 2022. Understanding Challenges for Developers to Create Accurate Privacy Nutrition Labels. In *CHI Conference on Human Factors in Computing Systems (CHI '22)*, April 29-May 5, 2022, New Orleans, LA, USA. ACM, New York, NY, USA, 24 pages. **[Best paper award honorable mention]** <https://doi.org/10.1145/3491102.3502012>
77. Yucheng Li, Deyuan Chen, Tianshi Li, Yuvraj Agarwal, Lorrie Faith Cranor, and Jason I. Hong. 2022. Understanding iOS Privacy Nutrition Labels: An Exploratory Large-Scale Analysis of App Store Data. In *CHI Conference on Human Factors in Computing Systems Extended Abstracts (CHI EA '22)*. Association for Computing Machinery, New York, NY, USA, Article 356, 1–7. <https://doi.org/10.1145/3491101.3519739>
78. Hana Habib, Megan Li, Ellie Young, and Lorrie Faith Cranor. 2022. “Okay, whatever”: An Evaluation of Cookie Consent Interfaces. In *CHI Conference on Human Factors in Computing Systems (CHI '22)*, April 29-May 5, 2022, New Orleans, LA, USA. ACM, New York, NY, USA, 27 pages. <https://doi.org/10.1145/3491102.3501985>
79. Hana Habib, Sarah Pearman, Ellie Young, Ishika Saxena, Robert Zhang, and Lorrie Faith Cranor. 2022. Identifying User Needs for Advertising Controls on Facebook. *Proc. ACM Hum.-Comput. Interact.* 6, CSCW1, Article 59 (April 2022), 42 pages. <https://doi.org/10.1145/3512906>.
80. Peter Story, Daniel Smullen, Yaxing Yao, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub. Awareness, Adoption, and Misconceptions of Web Privacy Tools. Proceedings on Privacy Enhancing Technologies 2021 (3):308–333.
81. Pardis Emami-Naeini, Janarth Dheenadhayalan, Yuvraj Agarwal, and Lorrie Faith Cranor. Which Privacy and Security Attributes Most Impact Consumers’ Risk Perception and Willingness to Purchase IoT Devices? 42nd IEEE Symposium on Security and Privacy (Oakland 2021), May 2021.
82. Kentrell Owens, Camille Cobb, and Lorrie Cranor. 2021. “You Gotta Watch What You Say”: Surveillance of Communication with Incarcerated People. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 62, 1–18. **[Best paper award honorable mention]**
83. Hana Habib, Yixin Zou, Yaxing Yao, Alessandro Acquisti, Lorrie Cranor, Joel Reidenberg, Norman Sadeh, and Florian Schaub. 2021. Toggles, Dollar Signs, and Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 63, 1–25.
84. Peter Story, Daniel Smullen, Yaxing Yao, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub. Awareness, adoption, and misconceptions of web privacy tools. Proceedings on Privacy Enhancing Technologies, 2021 (3) 308-333. DOI 10.2478/popets-2021-0049.
85. Shikun Zhang, Yuanyuan Feng, Lujo Bauer, Lorrie Faith Cranor, Anupam Das, and Norman Sadeh. “Did you know this camera tracks your mood?”: Understanding privacy expectations and preferences in the age of video analytics. Proceedings on Privacy Enhancing Technologies, 2021 (2) 282-304. DOI 10.2478/popets-2021-0028. [2021 Privacy Papers for Policymakers winner]
86. Joshua Tan, Lujo Bauer, Nicolas Christin, and Lorrie Faith Cranor. Definitive recommendations for stronger, more usable passwords combining minimum-strength, minimum-length, and blacklist requirements. ACM Conference on Computer and Communications Security (CCS 2020), November 2020.
87. Peter Story, Daniel Smullen, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub. From Intent to Action: Nudging Users Towards Secure Mobile Payments. SOUPS 2020. August, 2020.

88. Pardis Emami-Naeini, Yuvraj Agarwal, Lorrie Faith Cranor, and Hanan Hibshi. Ask the Experts: What Should Be on an IoT Privacy and Security Label? 41st IEEE Symposium on Security and Privacy (Oakland 2020), May 2020.
89. Jessica Colnago, Yuanyuan Feng, Tharangini Palanivel, Sarah Pearman, Megan Ung, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh. Informing the Design of a Personalized Privacy Assistant for the Internet of Things. CHI 2020, April 2020.
90. Hana Habib, Sarah Pearman, Jiamin Wang, Yixin Zou, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, Florian Schaub. "It's a scavenger hunt": Usability of Websites' Opt-Out and Data Deletion Choices. CHI 2020, April 2020.
91. Vinayshekhar Bannihatti Kumar, Roger Iyengar, Namita Nisal, Yuanyuan Feng, Hana Habib, Peter Story, Sushain Cherivirala, Margaret Hagan, Lorrie Faith Cranor, Shomir Wilson, Florian Schaub, Norman Sadeh. Finding a Choice in a Haystack: Automatic Extraction of Opt-Out Statements from Privacy Policy Text. WWW '20, April 2020 .
92. Hana Habib, Yixin Zou, Aditi Jannu, Neha Sridhar, Chelse Swoopes, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub. An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites. Fifteenth Symposium on Usable Privacy and Security (SOUPS 2019), Santa Clara, CA.
93. Sarah Pearman, Shikun Aerin Zhang, Lujo Bauer, Nicolas Christin, and Lorrie Faith Cranor. Why people (don't) use password managers effectively. SOUPS 2019. Fifteenth Symposium on Usable Privacy and Security (SOUPS 2019), Santa Clara, CA.
94. Pardis Emami-Naeini, Henry Dixon, Yuvraj Agarwal, and Lorrie Faith Cranor. 2019. Exploring How Privacy and Security Factor into IoT Device Purchase Behavior. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). ACM, New York, NY, USA, Paper 534, 12 pages.
95. Pardis Emami-Naeini, Martin Degeling, Lujo Bauer, Richard Chow, Lorrie Cranor, Mohammad Reza Haghighat, and Heather Patterson. The Influence of Friends and Experts on Privacy Decision Making in IoT Scenarios. The 21st ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '18), Nov 2018.
96. Hana Habib, Pardis Emami Naeini, Summer Devlin, Maggie Oates, Chelse Swoopes, Lujo Bauer, Nicolas Christin, and Lorrie Faith Cranor. User Behaviors and Attitudes Under Password Expiration Policies. Fourteenth Symposium on Usable Privacy and Security (SOUPS 2018), Baltimore, MD, pp. 13-20.
97. Hana Habib, Jessica Colnago, Vidya Gopalakrishnan, Sarah Pearman, Jeremy Thomas, Alessandro Acquisti, Nicolas Christin, and Lorrie Faith Cranor. Away From Prying Eyes: Analyzing Usage and Understanding of Private Browsing. Fourteenth Symposium on Usable Privacy and Security (SOUPS 2018), Baltimore, MD, pp. 159-175.
98. Maggie Oates, Yama Ahmadullah, Abigail Marsh, Chelse Swoopes, Shikun Zhang, Rebecca Balebako, and Lorrie Cranor. Turtles, Locks, and Bathrooms: Understanding Mental Models of Privacy Through Illustration. Proceedings on Privacy Enhancing Technologies, 2018 (4):5-32. **[Best student paper award]**
99. Jessica Colnago, Summer Devlin, Maggie Oates, Chelse Swoopes, Lujo Bauer, Lorrie Cranor, and Nicolas Christin. 2018. "It's not actually that horrible": Exploring Adoption of Two-Factor Authentication at a University. CHI 2018, Montreal, QC Canada, April 21-26, 2018.
100. Sarah Pearman, Jeremy Thomas, Pardis Emami Naeini, Hana Habib, Lujo Bauer, Nicolas Christin, Lorrie Faith Cranor, Serge Egelman, and Alain Forget. Let's go in for a closer look: Observing passwords in their natural habitat. 24th ACM Conference on Computer and Communications Security (CCS'17). 2017.
101. Sean Segreti, William Melicher, Saranga Komanduri, Darya Melicher, Richard Shay, Blase Ur, Lujo Bauer, Nicolas Christin, Lorrie Cranor, and Michelle Mazurek. Diversify to Survive: Making Passwords Stronger with Adaptive Policies. SOUPS 2017, Santa Clara, CA, July 12-14, 2017.
102. Pardis Emami Naeini, Sruti Bhagavatula, Hana Habib, Martin Degeling, Lujo Bauer, Lorrie Cranor, and Norman Sadeh. Privacy Expectations and Preferences in an IoT World. SOUPS 2017, Santa Clara, CA, July 12-14, 2017.
103. Joshua Tan, Lujo Bauer, Joe Bonneau, Lorrie Cranor, Jeremy Thomas, and Blase Ur. Can unicorns help users compare crypto key fingerprints? CHI 2017, Denver, CO, May 6-11, 2017.

104. Blase Ur, Felicia Alfieri, Maung Aung, Lujo Bauer, Nicolas Christin, Jessica Colnago, Lorrie Cranor, Harold Dixon, Pardis Emami Naeini, Hana Habib, Noah Johnson, and William Melicher. Design and evaluation of a data-driven password meter. CHI 2017, Denver, CO, May 6-11, 2017. **[Best paper award]**
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211. 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]
212. 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] **[SOUPS Impact Award Nominee, 2014]**
213. 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]
214. 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]
215. 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].
216. 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.
217. 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.
218. 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. **[Best paper award]**
219. 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]
220. 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. **[Best paper award]**
221. 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.

222. 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.
223. Lorrie Faith Cranor and Ron K. Cytron. Sensus: A Security-Conscious Electronic Polling System for the Internet. Proceedings of the Hawaii International Conference on System Sciences, January 7-10, 1997, Wailea, Hawaii, USA.

UNREFEREED CONFERENCE AND WORKSHOP PAPERS

224. 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.
225. Janice Tsai and Lorrie Cranor. Interfacing with Public Policy. CHI 2006 Workshop on Public Policy 23 April 2006, Montreal, Quebec, Canada.
226. 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.
227. 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.
228. 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]
229. 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]
230. 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]
231. 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.
232. 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.
233. 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]
234. 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]
235. 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

236. L. Bauer, C. Bravo-Lillo, L. Cranor, and E. Fragkaki. Warning Design Guidelines. CMU-CyLab-13-002. February 5, 2013.
237. Aleecia M. McDonald and Lorrie Faith Cranor. An Empirical Study of How People Perceive Online Behavioral Advertising. CyLab Technical Report. cmu-cylab-09-015.
238. Lorrie Faith Cranor, Aleecia M. McDonald, Serge Egelman, and Steve Sheng. 2006 Privacy Policy Trends Report. CyLab Privacy Interest Group. January 31, 2007.

239. 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.
240. 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>
241. 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/>
242. Lorrie Cranor, Marc Langheinrich, and Massimo Marchiori. A P3P Preference Exchange Language 1.0 (APPEL1.0). W3C Working Draft 15 April 2002.
243. 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

244. Lorrie Faith Cranor, Yuvraj Agarwal, and Pardis Emami-Naeini. Internet of Things Security and Privacy Labels Should Empower Consumers, *Communications of the ACM*, Vol. 67 No. 3 (March 2024), 29-31. <https://doi.org/10.1145/3637630>
245. B. Blakley and L. Cranor, A 20th Anniversary Episode Chat With S&P Editors George Cybenko, Carl Landwehr, Shari Lawrence Pfleeger, and Sean Peisert, in *IEEE Security & Privacy*, vol. 21, no. 2, pp. 9-16, March-April 2023, doi: 10.1109/MSEC.2023.3239179.
246. Lorrie Faith Cranor and Hana Habib. Metrics for Success: Why and How to Evaluate Privacy Choice Usability, *Communications of the ACM*, Vol. 66 No. 3 (March 2023), 35-37.
247. B. Blakley and L. Cranor, Katie Moussouris: Vulnerability Disclosure and Security Workforce Development, in *IEEE Security & Privacy*, vol. 21, no. 1, pp. 11-18, Jan.-Feb. 2023, doi: 10.1109/MSEC.2022.3222043.
248. Lorrie Faith Cranor. Mobile-App Privacy Nutrition Labels Missing Key Ingredients for Success, *Communications of the ACM*, Vol. 65 No. 11 (November 2022), 26-28.
249. Lorrie Faith Cranor. Cookie Monster, *Communications of the ACM*, Vol. 65 No. 7 (July 2022), 30-32.
250. Lorrie Faith Cranor. How Everyone Can Get the Online Privacy They Want. *The Wall Street Journal*, June 7, 2022.
251. B. Blakley and L. Cranor, High Assurance in the Twenty-First Century With Roger Schell, in *IEEE Security & Privacy*, vol. 20, no. 3, pp. 12-21, May-June 2022, doi: 10.1109/MSEC.2022.3159044.
252. Michael Skirpan, Maggie Oates, Daragh Byrne, and Robert Cunningham, and Lorrie Faith Cranor. Is a Privacy Crisis Experienced, a Privacy Crisis Avoided?, *Communications of the ACM*, Vol. 65 No. 3 (March 2022), 26-29.
253. Paul Haskell-Dowland and Lorrie Cranor. This New Year, why not resolve to ditch your dodgy old passwords? *The Conversation*, January 2, 2022.
254. B. Blakley and L. Cranor. A Discussion of Election Security, Cryptography, and Exceptional Access With Michael Alan Specter, in *IEEE Security & Privacy*, vol. 19, no. 6, pp. 15-22, Nov.-Dec. 2021, doi: 10.1109/MSEC.2021.3107769.
255. Lea Kissner and Lorrie Cranor. Privacy Engineering Superheroes. *Communications of the ACM*, Vol. 64, No. 11 (November 2021), 23-25.
256. B. Blakley and L. Cranor, A Discussion of Public Health, Trust, and Privacy With Susan Landau, in *IEEE Security & Privacy*, vol. 19, no. 5, pp. 9-15, Sept.-Oct. 2021, doi: 10.1109/MSEC.2021.3092956.
257. Lorrie Cranor. Lessons from the Loo. *Communications of the ACM*, Vol. 64, No. 7 (July 2021), 27-29.
258. Lorrie Cranor. Informing California Privacy Regulations with Evidence from Research. *Communications of the ACM*, Vol. 64, No. 3 (March 2021), 29-32.

259. Lorrie Cranor. Digital Contact Tracing May Protect Privacy, But It Is Unlikely to Stop the Pandemic. *Communications of the ACM*, Vol. 63, No. 11 (Nov. 2020), 22-24.
260. Lorrie Cranor. An Idea Whose Time Has (Finally) Come. In *2020: Visions of Privacy Anthology*. IAPP 2020.
261. Lorrie Cranor and Hana Habib. Private browsing: What it does – and doesn't do – to shield you from prying eyes on the web. *The Conversation*, July 30, 2020.
262. Hana Habib and Lorrie Cranor. Website privacy options aren't much of a choice since they're hard to find and use. *The Conversation*, October 31, 2019.
263. Lorrie Cranor. Should Your Parents Track Your Location? *Junior Scholastic Magazine*. February 18, 2019.
264. L. Cranor, B. Ur, L. Bauer, M. Mazurek, and N. Christin. Choose better passwords with the help of science. *The Conversation*, August 20, 2017. [Reprinted in *The Washington Post*, September 8, 2017]
265. Lorrie Cranor, ed. Putting Disclosures to the Test, an FTC Workshop: Staff Summary. November 2016.
266. Lorrie Cranor, My Mobile Account Was Hijacked. *Consumer Reports*, November 2016, p. 31.
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269. Lorrie Cranor. Time to rethink mandatory password changes. *Tech@FTC*. March 2, 2016.
270. Lorrie Cranor, Tal Rabin, Vitaly Shmatikov, Salil Vadhan, and Daniel Weitzner. *Towards a Privacy Research Roadmap for the Computing Community*. Computing Community Consortium, May 11, 2015.
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272. 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.
273. 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.
274. 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.
275. 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]
276. Lorrie Faith Cranor and Norman Sadeh. Privacy engineering emerges as a hot new career. *IEEE Potentials*, November/December 2013.
277. Lorrie Faith Cranor and Norman Sadeh. A Shortage of Privacy Engineers. *IEEE Security & Privacy*, March/April 2013.
278. Lorrie Faith Cranor. Can Users Control Online Behavioral Advertising Effectively? *IEEE Security & Privacy*, March/April 2012.
279. Lorrie Faith Cranor. Security for Humans. *The Innovator*, Volume 4, Issue 1, February 2011.
280. Lorrie Faith Cranor. Can Phishing Be Foiled? *Scientific American*, December 2008, p. 104-110.
281. Lorrie Cranor, Jason Hong, and Michael Reiter. Teaching Usable Privacy and Security: A Guide for Instructors. 2007. <http://cups.cs.cmu.edu/course-guide/>
282. Lorrie Faith Cranor. Giving Notice: Why Privacy Policies and Security Breach Notifications Aren't Enough. *IEEE Communications Magazine*. August 2005. p. 18-19.
283. Lorrie Faith Cranor and Simson Garfinkel. Guest Editors' Introduction: Secure or Usable? *IEEE Security and Privacy*. September/October 2004. p. 16-18.
284. Lorrie Faith Cranor. A Webmaster's Guide to Troubleshooting P3P. O'Reilly Network. November 2002.
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286. Lorrie Faith Cranor and Rigo Wenning. Why P3P is a Good Privacy Tool for Consumers and Companies. GigaLaw.com. (April 2002).
287. Lorrie Faith Cranor. The P3P Protocol Standardizes Online Privacy Statements. *e-commerce Law & Strategy*. January 2002, p.1, 8-9.
288. 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.
289. Lorrie Faith Cranor. Introduction to CACM special section: Internet Privacy. *Communications of the ACM*. Vol. 42, No. 2 (Feb. 1999), p. 28-31.
290. Lorrie Faith Cranor. Bias and Responsibility in ‘Neutral’ Social Protocols, *Computers & Society*, September 1998, p. 17-19.
291. Lorrie Faith Cranor. Internet Privacy: A Public Concern. *netWorker: The Craft of Network Computing* Vol. 2, No. 3 (June/July 1998), p. 13-18.
292. Lorrie Faith Cranor. Declared-Strategy Voting: An Instrument for Group Decision-Making. Washington University Dissertation. December 1996.
293. Lorrie Ackerman. Is ENOF Enough? Design and Evaluation of an Electronic Newspaper of the Future. Washington University Masters Thesis. May 1993.
294. Lorrie Ackerman. After Accolade: time for new laws? *IEEE Software*. November 1992. p100-101.

PATENTS AND INVENTION DISCLOSURES

295. Norman Sadeh-Konicopol, Paul Hankes Drielsma, Lorrie Faith Cranor, and Patrick Kelley. US Patent 8,423,483 User-controllable learning of policies. Issued April 16, 2013.
296. 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.
297. 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.
298. 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.
299. Cranor, L., Hong, J., Zhang, Y., CANTINA: A Content-based Approach for Detecting Phishing Sites, Invention Disclosure Submitted, December 2006.

EVIDENCE OF EXTERNAL REPUTATION

HONORS

- University Professor, Carnegie Mellon University, 2023 (highest designation a faculty member can receive at CMU)
- Honorary Doctorate in Informatics, Università della Svizzera Italiana, 2022
- AAAS Fellow, 2020 (for contributions to usable privacy and security research, policy, and education)
- ACM CHI Academy, 2017
- FORE Systems Professorship, awarded 2017
- IEEE Fellow, 2016 (for contributions to privacy engineering)
- ACM Fellow, 2014 (for contributions to usable privacy and security research and education)

AWARDS AND CITATIONS

- Distinguished Professor of Engineering Award, Carnegie Mellon University College of Engineering, 2022
- Allen Newell Award for Research Excellence, Carnegie Mellon University School of Computer Science, 2019 (for passwords research with Lujo Bauer, Nicolas Christin, Saranga Komanduri, Michelle Mazurek, William Melicher, Sean Segretti, Rich Shay, and Blase Ur)
- Alumni Achievement Award, McKelvey School of Engineering, Washington University in St. Louis, 2019
- Andrew Carnegie Fellow, 2019 (awarded by Carnegie Corporation of New York)
- ACM CHI Social Impact Award, 2018
- International Association of Privacy Professionals Leadership Award, 2018
- IEEE Cybersecurity Award for Practice, 2018 (for passwords research with Lujo Bauer, Nicolas Christin, Saranga Komanduri, Michelle Mazurek, William Melicher, Sean Segretti, Rich Shay, and Blase Ur)
- Scholarship recipient, CMU Leadership and Negotiation Academy for Women, Tepper School of Business, Carnegie Mellon University, 2017-2018
- ELATE Fellow, Executive Leadership in Academic Technology and Engineering, 2014-2015
- Montgomery Blair High School Magnet Foundation Distinguished Alumni Award, 2014
- NSF Science and Engineering Visualization Challenge Honorable Mention, 2014
- Recognized as a Privacy by Design Ambassador by the Information and Privacy Commissioner, Ontario, Canada, 2012
- Finalist, Executive Women's Forum (information security, risk management, and privacy) Women of Influence Awards, 2010
- Annual Computer Security Applications Conference 2009 Distinguished Practitioner Award
- Tor Graphical User Interface Design Competition, Phase 1 Overall Winner (2006)
- 2004 IBM Best Academic Privacy Faculty Award
- Technology Review Top 100 Innovator 35 or Younger (2003)
- 2002 AT&T Standards Recognition Award
- Index on Censorship Freedom of Expression Award for Best Circumvention of Censorship (for Publius project), 2001
- 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
- Washington University Woodward Engineering Fellowship, 1989-92
- National Merit Scholarship Finalist, 1989

PAPER AWARDS

- SOUPS 2022 IAPP Privacy Award – Colnago et al. 2022, Is it a concern or a preference? An investigation into the ability of privacy scales to capture and distinguish granular privacy constructs.
- CHI 2022 Best Paper Award Honorable Mention – Li et al. 2022, Understanding Challenges for Developers to Create Accurate Privacy Nutrition Labels
- Paper selected for Privacy Papers for Policymakers, 2021 – Zhang et al. 2021, “Did you know this camera tracks your mood?”: Understanding privacy expectations and preferences in the age of video analytics
- CHI 2021 Best Paper Award Honorable Mention – Owens et al. 2021, “You Gotta Watch What You Say”: Surveillance of Communication with Incarcerated People
- Privacy Papers for Policy Makers Student Paper Honorable Mention, 2020 – Habib et al. 2020, “It’s a scavenger hunt”: Usability of Websites’ Opt-Out and Data Deletion Choices
- Privacy Papers for Policy Makers Honorable Mention, 2019 – Schaub and Cranor 2020, Usable and Useful Privacy Interfaces
- Privacy Enhancing Technologies Symposium Andreas Pfitzmann Best Student Paper Award, 2018 – Oates et al. 2018, Turtles, Locks, and Bathrooms: Understanding Mental Models of Privacy Through Illustration
- Symposium On Usable Privacy and Security Impact Award Finalist, 2017 (SOUPS paper published in 2007-2012 recognized as having a significant impact on usable security and privacy research and practice) – Sheng et al. 2007, Anti-Phishing Phil: The Design and Evaluation of a Game That Teaches People Not to Fall for Phish
- CHI 2017 Best Paper Award [Ur et al. 2017, Design and evaluation of a data-driven password meter]
- USENIX Security 2016 Best Paper Award [Melicher et al. 2016, Fast, Lean, and Accurate: Modeling Password Guessability Using Neural Networks]
- CHI 2016 Best Paper Award Honorable Mention [Ur et al. 2016, Do Users’ Perceptions of Password Security Match Reality]
- Paper selected for Privacy Papers for Policymakers, 2015 [Schaub et al. 2015, A Design Space for Effective Privacy Notices]
- 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) [Downs et al., Decision Strategies and Susceptibility to Phishing]
- Symposium On Usable Privacy and Security 2013 Distinguished Paper Award [Bravo-Lillo et al. 2013, Your Attention Please: Designing security-decision UIs to make genuine risks harder to ignore]
- Information Systems Society and Information Systems Research 2012 Best Published Paper Award [Tsai et al 2011, The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study]
- Paper selected for Privacy Papers for Policymakers, 2012 [Ur et al 2012, Smart, Useful, Scary, Creepy: Perceptions of Online Behavioral Advertising]
- CHI 2012 Best Paper Award Honorable Mention [Leon et al 2012, Why Johnny Can’t Opt Out: A Usability Evaluation of Tools to Limit Online Behavioral Advertising]
- CHI 2011 Best Paper Award Honorable Mention [Komanduri et al. 2011, Of passwords and people: measuring the effect of password-composition policies]
- Paper selected for Privacy Papers for Policymakers, 2010 [Kelley et al 2010, Standardizing Privacy Notices: An Online Study of the Nutrition Label Approach]
- Award for Outstanding Research in Privacy Enhancing Technologies, Runner up, 2010 [Spiekermann and Cranor 2009, Engineering Privacy]
- CHI 2008 Best Paper Award Honorable Mention [Egelman et al. 2008, You’ve Been Warned: An Empirical Study of the Effectiveness of Web Browser Phishing Warnings]
- Best Paper Award, The Fifth International Conference on Electronic Commerce (ICEC 2003) [Byers et al. 2003, Automated Analysis of P3P-Enabled Web Sites]
- Best Paper Award, 9th USENIX Security Symposium, 2000 [Waldman et al 2000, Publius: A robust, tamper-evident, censorship-resistant web publishing system]

- Washington University Association of Graduate Engineering Students Research Fair First Place Award, 1996
- Missouri College Newspaper Association Award for Second Place in Features Writing, 1992
- Columbia University's national Gold Circle Award for Features Profiles Writing, 2nd place, 1988

ADVISORY COMMITTEES, BOARDS, AND WORKING GROUPS

- Member, Consumer Reports Digital Lab Advisory Council, 2020-
- Member, Center for Cybersecurity Policy Board of Directors, 2020-
- Member, Computing Research Association Board of Directors, 2019-2024
- Member, IAPP Certified Information Privacy Technologist (CIPT) Exam Development Board, 2019-2021
- Member, Aspen Institute Cybersecurity Group, 2018-
- Member, Future of Privacy Forum Advisory Board, 2009-2015, 2017-
- Member, International Association of Privacy Professionals, Privacy Engineering Section Advisory Board, 2018-2020
- Member-at-large, ACM Technology Policy Council, 2019-2020
- Member, National Academies Panel on Human Factors Sciences at the Army Research Laboratory, 2017
- Member, National Privacy Research Strategy Working Group, 2016
- Member, CMU Nanotechnology-Environmental Effects and Policy (NEEP) IGERT Advisory Board, 2012-2015
- Member, NYU Center for Interdisciplinary Studies in Security and Privacy (CRISSP) IGERT Advisory Board, 2011-2015
- Member, DARPA Privacy Panel, 2010-2013
- Elected member of ACM Public Policy Council (USACM), 2009-2010
- Member, Wombat Security Technologies Board of Directors, 2008-2014
- Member, Electronic Frontier Foundation Board of Directors, 2007-2015
- 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
- Vice chair, ACM Publications Board, 2000-2003
- Member, The Democracy Online Project National Task Force, 1999-2001
- Chair, W3C Platform for Privacy Preferences Project Specification Working Group, 1999-2006
- Member, Voting Integrity Project National Advisory Board, 1998-2001
- Member, ACM Publications Board, 1997-2003
- Advisory Committee Representative, World Wide Web Consortium, 1997-2002
- Chair, W3C Platform for Privacy Preferences Project Vocabulary Working Group, 1997
- Student activities chair, ACM Membership Activities Board, 1997-1999
- Member, ACM Membership and Promotion Board, 1995-1996
- Graduate Student Representative, Washington University Board of Trustees, 1995-1996

COMMITTEES AND REVIEWING

- ACM SIGSAC Awards Committee – member 2022
- Eradicate Hate Global Summit – steering committee member (2021-2022)
- Conference on Privacy Engineering Practice and Respect – Co-founder and program co-chair (2019-2021), Steering committee member (2022-2024)
- Symposium on Usable Privacy and Security — Founder and general chair (2005-2015), steering committee member (2011-2017, 2019-2024), program committee member (2020-2022)
- CHI Conference on Human Factors in Computing Systems — Associate chair (2014), paper reviewer (2003-2024), student research competition judge (2008-2010)
- IEEE Security and Privacy, program committee member (2017-2020), test-of-time award committee member (2021)
- ACM Grace Murray Hopper Awards Committee – member (2021-2024), chair (2024)

- Computing Innovation Fellows 2020 Reviewer
- RSA Conference (2019), curator of Seminar on Security, Privacy, and Human Behavior (2019)
- Workshop on Technology and Consumer Protection (ConPro), program committee member (2017, 2021)
- Privacy Enhancing Technologies Symposium — program committee member (2008, 2009, 2015)
- Passwords – program committee member (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)
- 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

- ACM Fellow
- IEEE Fellow
- AAAS Fellow
- International Association of Privacy Professionals (IAPP), Certified Information Privacy Technologist (CIPT) and Westin Emeritus Fellow

EDITORIAL BOARD MEMBERSHIPS

- Editorial Board Member (Viewpoints), Communications of the ACM, 2020-
- Editorial Board Member, IEEE Security and Privacy Magazine, 2021-
- Editorial Board Member, IEEE Transactions on Dependable and Secure Computing, 2015-2019

- Editorial Board Member, I/S: A Journal of Law and Policy for the Information Society, 2004-2019
- Associate Editor, The Information Society, 2000-2015
- 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

- Keynote: *From Password Requirements to IoT Cybersecurity Labels: Informing Public Policy With Research*, ACM CCS, November 28, 2023.
- Keynote: *Do We Actually Have a Choice? Why Navigating Privacy Choices is Difficult and How We Can Make it Better*, Wesleyan University Shasha Seminar for Human Concerns, March 31, 2023.
- Keynote: *Making Privacy Labels Useful*, Bosch Privacy Summit, September 22, 2022.
- Informing the Design of Cookie Consent Interfaces with Research, Privacy Engineering Practice and Respect, June 23, 2022.
- Keynote: *Designing Useful and Usable Privacy Interfaces*, Bosch conference on Software and Systems Engineering, February 2, 2022.
- Keynote: *Keeping it real and accounting for risk: usable privacy and security study challenges*, GameSec 2021, October 21, 2021.
- Keynote: *Designing Useful and Usable Privacy Interfaces*, The 19th ACM International Conference on Mobile Systems, Applications and Services (ACM MobiSys 2021), July 1, 2021.
- Keynote: *Toggles, Dollar Signs, and Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts*, Dublin Privacy Symposium, June 23, 2021.
- *Illustrating Privacy Engineering Concepts with Potty Talk*, Privacy Engineering Practice and Respect, June 10, 2021.
- Keynote: *Security and Privacy for Humans*, Cyber Security Summit 2020, October 27, 2020.
- Keynote: *Keeping it real and accounting for risk: usable privacy and security study challenges*, Human Factors and Ergonomics Society 64th International Annual Meeting (HFES2020), October 5, 2020.
- Keynote: *Useful and Usable Privacy Interfaces*, Workshop on AI for Privacy (AI4P), 2rd European Conference on Artificial Intelligence, September 4, 2020.
- Keynote: The Hugh Thompson Show, featuring Penn & Teller and Dr. Lorrie Cranor, RSA Conference, San Francisco, February 28, 2020.
- Keynote: *Security and Privacy for Humans*, CyberCorps Scholarship for Service (SFS) 2020 Annual Job Fair and Symposium, January 14, 2020.
- Keynote: *Tales of an Accidental Computer Science Professor*. Women in Cybersecurity 2019 (WiCys), Pittsburgh, PA, March 29, 2019.
- Keynote: *Security and Privacy for Humans*. Expeditions in Computing: 10 years transforming science and society, Washington, DC, December 6, 2018.
- SIGCHI Social Impact Award Talk: *Making Privacy and Security More Usable*. CHI 2018, Montreal QC, Canada, April 23, 2018.
- Keynote: *Web privacy and security: The user experience*. The Web Conference 2018, Lyon, France, April 23-27, 2018.
- Keynote: *What's wrong with your password*, FedEx Security Awareness Event, Memphis, TN, October 4, 2017.
- Real Humans, Simulated Attacks: Usability Testing with Attack Scenarios, Black Hat USA, Las Vegas, NV, July 26, 2017.
- Keynote: *The Art of Privacy*, 11th International Conference on Web and Social Media (ICWSM-17), Montreal, Quebec, CA, May 17, 2017.
- Invited talk: *Effectiveness of Notices and Disclosures*, National Association of Attorneys General Consumer Protection Conference, Washington, DC, May 15, 2017.

- Keynote: *Putting Privacy Notices to the Test*, American Bar Association Consumer Protection Conference, Atlanta, GA, February 2, 2017.
- *Putting Privacy Notices to the Test*, Enigma, Oakland, CA, February 1, 2017.
- Keynote: *How online tracking works*. Silicon Flatirons Conference on the Future of Advertising and Privacy, University of Colorado Law School, Boulder, CO, December 2, 2016.
- Keynote: *Adventures in Usable Privacy and Security: From Empirical Studies to Public Policy*. IEEE Cybersecurity Development Conference, Boston, MA, November 3, 2016.
- Keynote: *Usable Security and Public Policy*. 3rd Annual Senior Executive Cyber Security Conference, Baltimore, MD, September 21, 2016.
- Keynote: *Time to rethink mandatory password changes*. BSides Las Vegas, August 2, 2016.
- Keynote: *Informing (public) policy*. Symposium On Usable Privacy and Security, Denver, CO, June 23, 2016.
- Keynote: *Putting transparency to the test*. Clean Ads I/O. New York, NY, May 24, 2016.
- Keynote: *Adventures in usable privacy and security: from empirical studies to public policy*. HotSoS, Pittsburgh, PA, April 20, 2016.
- Personal Privacy Assistants in the Age of the Internet of Things. World Economics Forum, Davos, Switzerland, January 21, 2016.
- Keynote: *The continuing quest for secure and usable passwords*. ArchC0n 2015, St. Louis, MO, September 11, 2015.
- *Conducting Usable Security Studies: It's Complicated*. USENIX Security Symposium, Washington, DC, August 12, 2015.
- *Making Privacy Transparent*. Highmark Health Privacy Workshop, Pittsburgh, PA, June 11, 2015.
- 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

- *From Password Requirements to IoT Cybersecurity Labels: Informing Public Policy With Research*. Triangle Computer Science Distinguished Lecturer Series, March 4, 2024.
- *Designing Usable and Useful Privacy Interfaces*. Harvard AI Cyber Lunch, October 25, 2023; Washington University in St. Louis Computer Science & Engineering Colloquia, October 13, 2023; Spelman College Seminar, September 20, 2023; Università della Svizzera italiana Seminar, September 4, 2023; Princeton Center for Information Technology Policy Distinguished Lecture Series, March 30, 2023; Cornell Tech Seminar, November 14, 2022; Indiana University Computer Science Colloquium Series, November 1, 2022; Penn State College of Information Sciences and Technology Distinguished Lecture Series, November 12, 2021; Pomona College Computer Science Colloquium, November 4, 2021; Cryptography, Security, and Privacy Speaker Series, University of Waterloo, May 27, 2021; Center for Law and Information Policy Seminar, Fordham Law School, January 25, 2021.
- *Your Privacy Choices*. Drink-Talk-Learn Symposium, Dynamoms Soccer Camp, April 29, 2023.
- *Making Secure Systems Easy for the Public to Use*. Social Security Advisory Board Systems Speaker Series, February 16, 2022.
- *Security and Privacy for Humans*, UCSF-Stanford CERSI-FDA Cybersecurity Distinguished Speaker Series on Cybersecurity for Biomedical Engineering, January 20, 2022; FDA Lunch & Learn Series, May 20, 2021; Commonwealth Cyber Initiative Seminar Series, February 18, 2021; CERIAS Security Seminar, Purdue University, December 9, 2020; University of Wisconsin-Madison Distinguished Series, October 28, 2020; University of Minnesota Cray Distinguished Speaker Series, Minneapolis, MN, November 11, 2019.
- *Who Says Engineering Isn't Creative?* George Washington University SEAS Center for Women in Engineering Webinar, November 19, 2021.
- *Privacy notice and consent for a GDPR/CCPA/IoT world*, Harvard Business School Digital Seminar Series, Boston, MA, February 13, 2020.
- *Tales of an Accidental Computer Science Professor*, Indiana University Women in Cybersecurity Seminar, Bloomington, IA, February 8, 2018.
- *Real Humans, Simulated Attacks: Usability Testing with Attack Scenarios*, Princeton University Computer Science Colloquium, Princeton, NJ, November 13, 2017; University of Kentucky, Dean's Lecture Series, Lexington, KY, October 3, 2017.
- *The continuing quest for secure and usable passwords*, York University, Toronto, Ontario, CA, May 16, 2017; Steel City Information Security, Pittsburgh, PA, July 15, 2015.
- *Adventures in Usable Privacy and Security: From Empirical Studies to Public Policy*, The Ohio State University Moritz College of Law, Program on Data Governance Seminar Series, April 11, 2017; Harvard Computer Science Colloquium Series, Cambridge, MA, November 3, 2016.
- *Conducting Usable Privacy and Security Studies: It's Complicated*, Washington University in St. Louis CSE Seminar, St. Louis, MO, September 11, 2015.
- *The Art of Privacy*, Carnegie Mellon CyLab Seminar Series, February 9, 2015.
- *Privacy Nudges and Self-Censorship on Social Media*, Gvu Brown Bag Seminar, Georgia Tech, Atlanta, GA, November 21, 2013; Carnegie Mellon CyLab Seminar Series, October 7, 2013; PARC Privacy Lunch, Palo Alto, CA, June 26, 2013; 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; National Science Foundation WATCH Series, Arlington, VA, April 19, 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.
- *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; 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; University College London Centre for Security and Crime Science, London, UK, December 16, 2008.
- *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.
- *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; America OnLine, Dulles, VA, 13 January 2006.
- *Towards Usable Web Privacy and Security*, University of Pittsburgh Computer Science Colloquium Series, 19 October 2005; Carnegie Mellon University Human-Computer Interaction Institute Seminar, 7 September 2005; 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; IBM Watson Research, Hawthorne, New York, March 28, 2003.
- *Usable Privacy and Security Research at CMU*. IBM Watson Research, Hawthorne, New York, February 9, 2005.
- *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; Princeton ACM/IEEE Computer Society meeting, Princeton, NJ, December 14, 2000; 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

- *Designing Notice and Consent for the Internet of Things*, International Association of Privacy Professionals Global Privacy Summit 2019, Washington, DC, May 1, 2019.
- *Designing Notice and Consent for the Internet of Things*, International Association of Privacy Professionals Global Privacy Summit 2018, Washington, DC, March 26, 2018.
- *Designing Notice and Consent for the Internet of Things*, International Association of Privacy Professionals Global Privacy Summit 2017, Washington, DC, April 18, 2017.
- *Designing Notice and Consent for the Internet of Things*, International Association of Privacy Professionals Global Privacy Summit 2016, Washington, DC, April 5, 2016.
- *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

- *The FCC's Broadband Nutrition Labels*. Broadband Measurement Summit. Washington, DC, March 7, 2024.
- *Time Management and Work Life Balance*. Computing Research Association Career Mentoring Workshop, February 22, 2024.
- *Public Hearing on Broadband Consumer Labels*. US Federal Communications Commission, April 7, 2022.
- *Time Management and Work Life Balance*. Computing Research Association Career Mentoring Workshop, February 24, 2022.
- Smart Homes Virtual Town Hall with PA State Rep. Dan Miller. January 20, 2022.
- *Improving the Cybersecurity Ecosystem, A Strategic Approach to US Cybersecurity*, Cyberspace Solarium Commission, October 19, 2020.
- *Wired for Health 2020: Biometrics and Privacy in the COVID-19 Era*, October 8, 2020.
- *Privacy Risk Management Workforce: The Big Picture*, NIST Privacy Workforce Technology Workshop, September 22, 2020.
- *Redesigning Consent for Better Data Protection*. World Economic Forum workshop, October 2, 2019.
- *Pathways into Privacy Engineering*. International Association of Privacy Professionals, August 14, 2020.
- *Consumer Demand and Expectations of Privacy*. FTC Hearing #12 on Competition and Consumer Protection in the 21st Century: The FTC's Approach to Consumer Privacy, April 9, 2019.
- *The Researcher's View: Privacy Engineering on the Bleeding Edge*. IAPP Privacy Engineering Section Forum, Washington, DC, March 29, 2018.
- *FTC Chief Technologists: Perspectives on User Choice, Security, and Accountability*. IAPP Global Privacy Summit, Washington, DC, March 27, 2018.
- *Designing and evaluating disclosures in a digital world*. Department of Commerce Public Meeting On Consumer Messaging For Copyrighted Works, Alexandria, VA, April 18, 2017.
- *What's the value of privacy notices?* Privacy@Scale, Washington, DC, May 31, 2016.
- *Balancing transparency and privacy*, Opportunities & Challenges: Open Police Data and Ensuring the Safety and Security of Victims of Intimate Partner Violence and Sexual Assault, The White House, Washington, DC, April 21, 2016.
- *What if your data regulator actually knew about computers and computer science?* IAPP Global Privacy Summit, Washington, DC, April 5, 2016.

- *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.
- *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.
- *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.
- *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.
- *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.
- *Consumer Expectations and Disclosures*, Federal Trade Commission Exploring Privacy Roundtable, Washington, DC, December 7, 2009.
- *Methodology*, Workshop on Security and Human Behaviour (SHB 2008), Boston, MA, June 30-July 1, 2008.
- *Does User Education Work?* APWG eCrime Researchers Summit, Pittsburgh, PA, 4-5 October 2007.
- *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.
- ACM Computer and IT Policy Briefing for the 106th Congress, Washington, DC, 5 March 1999.
- *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.

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, GRANT, AND GIFT SUPPORT

- *IoT Security and Privacy Label Research*, PI: Lorrie Cranor and Yuvraj Agarwal, Craig Newmark Philanthropies, 2023, \$250,000
- *Privacy Fellowship*, PI: Lorrie Cranor, Innovators Network Foundation, unrestricted gift, 2023, \$50,000
- *Privacy & AI Threat Modeling: A User-Focused Framework for Notice and Choice*, PI: Lorrie Cranor and Norman Sadeh, PwC Carnegie Mellon University Digital Transformation and Innovation Center, 2023-2024, \$420,365
- *Collaborative Proposal: SaTC Frontiers: Center for Distributed Confidential Computing (CDCC)*, PI: Lorrie Cranor (CMU PI), National Science Foundation, 2022-2027, \$2,940,000 (\$880,000 for CMU)
- *Privacy Fellowship*, PI: Lorrie Cranor, Innovators Network Foundation, unrestricted gift, 2022, \$50,000
- *Carrier IQ Cy Pres*, PI: Lorrie Cranor, Carrier IQ, unrestricted gift, March 2022, \$276,666
- *Usable privacy research*, PI: Lorrie Cranor
- Meta designated research project through CyLab Corporate Partnership, 2022, \$75,000
- *Mobile App Privacy Nutrition Labels in Action: Weaving Technical and Human Perspectives*, PI: Lorrie Cranor and Norman Sadeh, Google Faculty Award, unrestricted gift, 2021, \$70,000
- *Privacy Fellowship*, PI: Lorrie Cranor, Innovators Network Foundation, unrestricted gift, 2021, \$50,000
- *Exploring Privacy Concerns and Solutions for AR Glasses*, PI: Lorrie Cranor and Lujo Bauer, Facebook, 11/1/2020 – 6/1/2022, \$199,294
- *Privacy Fellowship*, PI: Lorrie Cranor, Innovators Network Foundation, unrestricted gift, 2020, \$50,000
- *Evaluation and Improving Consent Flows to Assist Users with Data Decisions*, PI: Lorrie Cranor, Facebook designated research project through CyLab Corporate Partnership, 2020, \$65,000
- *Usable Consent and Authorizations for Digital Healthcare Channels*, PI: Lorrie Cranor, Highmark Health, 5/1/2020 – 4/30/2021, \$186,289
- *Characterizing User Behavior and Anticipating its Effects on Computer Security with a Security Behavior Observatory*, PI: Lorrie Cranor and Nicolas Christin, National Security Agency Science of Security Lablet, 1/30/2020-1/29/2021, \$150,000
- *Public Privacy Protective Behaviors*, PI: Lorrie Cranor and Alessandro Acquisti, Symantec designated research project through CyLab Corporate Partnership, 2019, \$65,000
- *Identifying User Needs for Advertising Controls*, PI: Lorrie Cranor, Facebook, unrestricted gift, 2019, \$50,000
- *Security, Privacy, and Human Behavior*, PI: Lorrie Cranor, Carnegie Corporation of New York, 2019-2021, \$200,000
- *Privacy Fellowship*, PI: Lorrie Cranor, Innovators Network Foundation, unrestricted gift, 2019, \$50,000
- *Unrestricted gift*, PI: Lorrie Cranor, DuckDuckGo, 2019, \$25,000
- *IoT Device Privacy and Security Nutrition Labels*, PIs: Lorrie Cranor and Yuvraj Agarwal, CMU CyLab IoT Initiative, 2019, \$75,000
- *Characterizing User Behavior and Anticipating its Effects on Computer Security with a Security Behavior Observatory*, PI: Lorrie Cranor and Nicolas Christin, National Security Agency Science of Security Lablet, 1/30/2019-1/29/2020, \$150,000
- *Unrestricted gift*, PI: Lorrie Cranor, Facebook, 2018, \$25,000
- *USE: User Security Behavior*, PI: Lorrie Cranor, Nicolas Christin, Alessandro Acquisti, Rahul Telang, NSA Science of Security Lablet, 2017-2018, \$431,045
- *TWC: Small: Helping Teens and Parents Negotiate Online Privacy and Safety*, PI: Julie Downs (Co-PI: Lorrie Cranor), National Science Foundation, 9/1/2016 – 8/31/2018, \$256,139
- *USE: User Security Behavior*, PI: Lorrie Cranor, Nicolas Christin, Alessandro Acquisti, Rahul Telang, NSA Science of Security Lablet, 2015-2016, \$355,201

- *Password Policy Security and Usability*, PI: Lorrie Cranor, Lujó Bauer, Nicolas Christin, PNC Center for Financial Services Innovation, 1/1/2016 – 12/31/2016, \$120,000
- *Development of a Data-Driven Open Source Password Meter*, PI: Lorrie Cranor, Lujó Bauer, Nicolas Christin, PNC Center for Financial Services Innovation, 10/1/2015 – 6/30/2016, \$120,000
- *Personalized Privacy Assistants for Big Data and the Internet of Things*, PI: Norman Sadeh (Co-PIs: Alessandro Acquisti, Lujó Bauer, Lorrie Cranor, Anupam Datta), DARPA, 10/7/2015 – 2/28/2020, \$4,500,000
- *Can Johnny Chat Securely? Evaluating Mobile Applications for Encrypted Messaging*, PI: Lorrie Cranor, Google, unrestricted gift, September 2015, \$100,000
- *Providing Users Data-Driven Privacy Awareness*, PI: Lorrie Cranor (Co-PI: Blase Ur), Data Transparency Lab, unrestricted gift, September 2015, \$56,000
- *USE: User Security Behavior*, PI: Lorrie Cranor, Nicolas Christin, Alessandro Acquisti, Rahul Telang, NSA Science of Security Lablet, 2015-2016, \$297,766
- *Towards personalized privacy assistants for the open Web of Things*, PI: Norman Sadeh (Co-PIs: Lujó Bauer and Lorrie Cranor), Google, 4/2015, \$100,000
- *USE: User Security Behavior*, PI: Lorrie Cranor, Nicolas Christin, Alessandro Acquisti, Rahul Telang, NSA Science of Security Lablet, 2014-2015, \$350,322
- *MACRO: Models for Enabling Continuous Reconfigurability of Secure Missions*, PI: Lorrie Cranor (Co-PIs: Lujó Bauer, Nicolas Christin, Coty Gonzalez), Army Research Lab, 09/01/2013 – 08/31/2018, \$3,246,573 [Note, Cranor left this project in Nov. 2015]
- *USE: User Security Behavior*, PI: Lorrie Cranor, Nicolas Christin, Alessandro Acquisti, Rahul Telang, NSA Science of Security Lablet, 2013-2014, \$129,678
- *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 – 02/28/2019, \$2,842,634
- *USE: User Security Behavior*, PI: Lorrie Cranor, Rahul Telang, Alessandro Acquisti and Nicolas Christin, National Security Agency, September 2012 – May 2017, \$1,561,664
- *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: Lujó 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, Lujó 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, 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, Sept. 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: Lujo 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: Lujo 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

ENGINEERING & PUBLIC POLICY PHD PROGRAM

I served as director of the PhD program in Engineering & Public Policy from 2017 through 2019. This is a well-established program, which had about 80-90 students enrolled. In my first year as director I worked with the faculty to propose and implement changes in a number of areas, updating policies and streamlining processes. I worked with the department's qualifying exam and curriculum committees to review their respective policies, obtained input from other faculty and students, helped build consensus within the committees, and proposed changes to the full faculty. I then worked with the committees to revise proposals based on concerns raised at faculty meetings, leading to adoption of our revised proposals. As a result, we made changes to the qualifier exam process that reduced faculty workload and student stress while increasing the consistency of grading. We have made changes to the PhD curriculum that increase flexibility in ways students can meet course requirements so as to better match the curriculum to the needs of each student, reduce administrative load of granting exceptions to curriculum requirements, and increase our ability to apply the policy consistently. I also worked with department staff to revise and streamline our PhD admissions processes, while emphasizing student diversity and making sure admitted students will have suitable advising and funding. Finally, I started and chaired a new committee in EPP on Climate and Wellbeing in which graduate students, faculty, and staff come together to discuss concerns related to climate and wellbeing in the department and work towards addressing these issues. For example, I led an effort to propose and adopt a departmental policy on time off for PhD students.

PRIVACY ENGINEERING MASTERS PROGRAM AND CERTIFICATE PROGRAM

The Privacy Engineering degree is a 12-month or 16-month 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. In the 16-month program students complete summer internships before returning to CMU for their capstone 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. I have also supervised a capstone project team almost every year. The program has enrolled between 2 and 20 students each year. In 2021 we launched a remote, part-time version of the program as well as a certificate program for working professionals that includes a total of 24 hours of remote instruction.

CARNEGIE MELLON USABLE PRIVACY & SECURITY DOCTORAL TRAINING PROGRAM

The Carnegie Mellon Usable Privacy and Security (CUPS) Doctoral Training program offered PhD students at CMU a cross-disciplinary training experience that prepared 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 was 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 was supported by an NSF IGERT grant from 2009 to 2014. I was PI on the NSF IGERT grant that funded this program and served as director of this program. I proposed the curriculum for the program and was responsible for admissions, outreach, and program operations. I started a weekly CUPS seminar series, which has now merged with the

Current Topics in Privacy seminar series and continues to be attended by 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 featured 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 updated it and taught it every year from 2006 to 2015.

SECURITY AND PRIVACY PROGRAMS FOR UNDERGRADUATES

I helped develop an undergraduate concentration in security and privacy for computer science and ECE students (launched in 2019) as well as an undergraduate minor in security, privacy, and policy that is open to students across the university (launched in 2020). I was a member of the small committee that developed the concentration, starting with identifying learning objectives and then determining how those could be satisfied through a combination of existing courses (as-is or with small changes) or new courses. I also led the effort to develop and seek approval for the undergraduate minor for students interested in studying security and privacy from a policy-oriented perspective.

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. Initially, much of the course was taught in a graduate seminar style in which all students were expected to do a weekly reading assignment and each week different students prepared a presentation for the class. Students also worked on a group project throughout the semester. Over the years I have revised the curriculum. Beginning with the Spring 2018 offering of this course, I used most of the first half of the semester to teach human-computer interaction research methods through class lectures and hands on exercises, framed in the context of privacy and security. In the second half of the semester I focused each lecture on a different security or privacy topic. Group projects involving IRB-approved usable privacy and security studies continue to provide students with experience applying what they have learned. Some students continue working on their group projects after the semester is over and have successfully published them at peer-reviewed conferences. I developed this course with two colleagues, Michael Reiter and Jason Hong, in 2006 and have taught it 13 times between 2006 and 2022. This is one of the first usable privacy and security courses to be offered anywhere. The syllabus and curriculum materials are available online to be used as a model for other courses. This a required course in the Privacy Engineering masters program and also fulfills requirements in other programs including the undergraduate security and privacy concentrations and minor.

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 nine times between 2004 and 2015. This was one of the first privacy courses to be offered to computer science or engineering students at any university. It continues to be offered annually by other faculty and is a required course in the Privacy Engineering masters program and also fulfills requirements in other programs including the undergraduate security and privacy concentrations and minor.

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. 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 and is now taught every semester. I developed this course in 2005 and taught in three times between 2005 and 2007. It is now taught by other faculty.

STUDENT ADVISING

COMPLETED PHD STUDENTS

Rebecca Balebako, December 2014, PhD in Engineering & Public Policy

- Thesis title: Identifying and Communicating the Risks of Smartphone Data Sharing
- Employer: Balebako Privacy Engineer

Cristian Bravo-Lillo, May 2014, PhD in Engineering & Public Policy

- Thesis title: Improving Computer Security Dialogs: An Exploration of Attention and Habituation
- Employer: RSEduca

Jessica Colnago, December 2021, PhD in Societal Computing

- Thesis title: Exploring the Adoption of Privacy-Protective Behaviors
- Employer: US Federal Trade Commission

Kyle Crichton, December 2023, PhD in Engineering & Public Policy

- Thesis title: Tracking User Web Browsing Behavior: Privacy Harms and Security Benefits
- Employer: Center for Security and Emerging Technology

Serge Egelman, May 2009, PhD in Computation, Organizations, and Society

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

Pardis Emami-Naeini, May 2020, PhD in Societal Computing (co-advised with Y. Agarwal)

- Thesis title: Informing Privacy and Security Decision Making in an IoT World
- Employer: Duke University

Hana Habib, September 2021, PhD in Societal Computing

- Thesis title: Evaluating the Usability of Privacy Choice Mechanisms
- Employer: Carnegie Mellon University

Patrick Kelley, May 2013, PhD in Computation, Organizations, and Society (co-advised with N. Sadeh)

- Thesis title: Designing Privacy Notices: Supporting User Understanding and Control
- Employer: Google

Saranga Komanduri, May 2016, PhD in Societal Computing

- Thesis title: Modeling the adversary to evaluate password strength with limited samples
- Employer: Civis Analytics

Ponnurangam Kumaraguru, May 2009, PhD in Computation, Organizations, and Society

- Thesis title: PhishGuru: A System for Educating Users about Semantic Attacks
- Employer: International Institute of Information Technology (IIIT), Hyderabad

Pedro Giovanni Leon, December 2014, PhD in Engineering & Public Policy

- Thesis title: Privacy Notice and Choice in Practice
- Employer: Central Bank of Mexico

Abigail Marsh, August 2018, PhD in Societal Computing

- Thesis title: An Examination of Parenting Strategies for Children's Online Safety
- Employer: Macalester College

Aleecia McDonald, September 2010, PhD in Engineering & Public Policy

- Thesis title: Footprints Near the Surf: Individual Privacy Decisions in Online Contexts
- Employer: self-employed

Rob Reeder, July 2008, PhD in Computer Science

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

Richard Shay, May 2015, PhD in Computation, Organizations, and Society

- Thesis title: Creating Usable Policies for Stronger Passwords with MTurk
- Employer: MathWorks

Steve Sheng, September 2009, PhD in Engineering & Public Policy

- Thesis title: Phishing Countermeasures: A Policy Analysis
- Employer: ICANN

Manya Sleeper, August 2016, PhD in Societal Computing

- Thesis title: Everyday Online Sharing
- Employer: Google

Josh Tan, September 2020, PhD in Societal Computing (co-advised with L. Bauer)

- Thesis title: Practical Security Guidance for Authentication-System Designers
- Employer: Amazon

Janice Tsai, August 2009, PhD in Engineering & Public Policy

- Thesis title: The Impact of Salient Privacy Information on Decision-Making
- Employer: Google

Blase Ur, September 2016, PhD in Societal Computing

- Thesis title: Supporting Password-Security Decisions with Data
- Employer: University of Chicago

Kami Vaniea, September 2012, PhD in Computer Science (co-advised with L. Bauer)

- Thesis title: Proximity Information Displays for Access Control
- Employer: University of Waterloo

CURRENT PHD STUDENTS

- Sarah Pearman, Societal Computing, entered 2019
- Andrea Gallardo, Societal Computing, entered 2020 (co-advised with L. Bauer)
- Elijah Bouma-Sims, Societal Computing, entered 2021
- Alexandra Li, Societal Computing, entered 2023
- Alexandra Nisenoff, Societal Computing, entered 2022 (co-advised with N. Christin)
- Ellie Young, Societal Computing, entered 2022

M.S. THESES

- Ujvala Kollipara, Password Sharing Practices in Teams that Manage Computer Networks, MSIS 2023
- Xiaoxin (Carol) Shen, Consumer Perspectives on Tech Advertising, MSISPM 2023
- 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

- Shikun Aerin Zhang, Understanding People's Diverse Privacy Attitudes: Notification, Control, and Regulatory Implications, Language Technologies Institute PhD, 2023
- Tianshi Li, Privacy-Enhancing Development Environment, Human-Computer Interaction Institute PhD, 2023
- María Alejandra Arciniegas Gómez, Privacy and Private Corporations: The Meaning of Consent in the Digital Age, Philosophy PhD, 2023
- Daniel Smullen, Informing the Design and Refinement of Privacy and Security Controls, SC PhD, 2021
- Peter Story, Design and Evaluation of Security and Privacy Nudges: From Protection Motivation Theory to Implementation Intentions, SC PhD, 2021
- Jim Graves, Empirical Analysis of Effects and Perceptions of Cybercrime, EPP PhD, 2021
- Hanan Hibshi, Composite Security Requirements in the Presence of Uncertainty, SC PhD, 2018
- Amit Datta, Fairness and Privacy Violations in Black-Box Personalization Systems: Detection and Defenses, ECE PhD, 2018
- Frankie Catota, Raising Cybersecurity Capabilities in Critical Infrastructure, EPP PhD, 2016
- Casey Canfield, Using Vigilance to Quantify Human Behavior for Phishing Risk, EPP PhD, 2016
- Elizabeth Stobert, Graphical Passwords and Practical Password Management, PhD in Computer Science, Carlton University, Ontario, Canada, 2015
- Ruogu Kang, Incognito Online: Why and How People Hide their Digital Traces, HCII PhD, 2015
- Eiji Hayashi, Uni-Auth: Building a Human-Centered Identity Management System, HCII PhD, 2015
- 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

UNIVERSITY SERVICE

UNIVERSITY SERVICE AND COMMITTEE WORK

- Member, CISO Advisory Council, 2022-2024
- Member, Commission on Academic Freedom and Freedom of Expression, 2021-2022
- Member, Family Care Advisory Committee, 2019-2024
- Member, Faculty Committee on Diversity, Inclusion, and Development, 2016-2021
- Member, President’s Task Force on Campus Climate, 2018-2019
- Member, Committee on Joint Information Systems Undergraduate Program, 2016-2017
- Full Board member, Institutional Review Board, 2014-2015
- Member, Childcare Committee, 2015-2016
- Co-chair Cybersecurity and Privacy Education and Research (CAPER) Working Group, 2014-2015
- Member, Strategic Planning Committee, 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

- Member, CMU-Africa Ad Hoc Committed for Faculty Reappointment and Promotion, 2024
- Member, INI Review and Promotion Committee, 2022-2023
- Chair, Scott Institute Director Search, 2022
- Member, SCS Newell and Perlis Awards Committee, 2021-2024
- Member, SCS Council, 2015-2024
- Member, EPP Policy Engagement Committee, 2021-2023
- Member, EPP Strategic Review Committee, 2019-2020
- Co-chair, School of Computer Science Dean Search Committee, 2018-2019
- Chair, EPP Committee on Culture and Wellbeing, 2018-2020
- Member, SCS Reappointments and Promotions Committee, 2017-2018
- Member, Security and Privacy Undergraduate Concentration Committee, 2017-2018
- Chair, College of Engineering Center for Faculty Success Family-Friendly Policies, 2015-2018
- Chair, EPP Qualifier Process Committee, 2015, 2017
- Chair, CyLab Social Engineering Committee, 2007-2015
- Chair, ISR Faculty Hiring Committee, 2014-2015
- Member, SCS Pace Setters Committee, 2010-2014
- Member, EPP Department Head Search Committee, 2013-2014
- Member, CIT-CFA Committee, 2013-2014
- Member, EPP Admissions Committee, 2010-2011, 2013-2015, 2016-2018
- Member, EPP Part B Qualifier Committee, 2011-2012, 2018
- 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
- Chair, CyLab Privacy Interest Group, 2006-2007
- Organizer, ISR Seminar Series, 2004-2009
- Organizer, EPP IT Policy Group, 2005-2006
- Organized December 2006 ISR faculty summit, focused on undergraduate education

OTHER

- OurCS Workshop for Undergraduates in Computer Science, project leader 2017, 2019, 2022
- Research Experiences for Undergraduates in Software Engineering (REUSE) mentor, 2019-2024
- Pittsburgh Science and Technology Academy mentor for high school senior projects, 2013-2016
- Women@INI Faculty Advisor, 2006-2015
- Lecturer: CMU CS4HS program for high school teachers, 2009-2010; Andrews Leap program for high school students, 2013-2016; CyLab Information Assurance Capacity Building Program (IACBP), 2006-2011; CMU Osher Lifelong Learning Institute, 2009
- Steinbrenner Environmental Educator (participated in EAC seminars and developed environmental module for Computers and Society course, Spring 2005)