

# SergeEgelman

## contact

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## education

2009	<b>PhD</b> in Computation, Organizations, and Society School of Computer Science	Carnegie Mellon University
2004	<b>BS</b> in Computer Engineering School of Engineering and Applied Science	University of Virginia

## experience

2022–Now	<b>AppCensus, Inc.</b> Chief Scientist / Co-Founder	San Francisco, CA
2019–2022	CTO / Co-Founder	
2016–Now	<b>International Computer Science Institute</b> Research Director, Usable Security & Privacy Group	Berkeley, California
2013–2016	Senior Researcher, Networking and Security Group	
2011–Now	<b>University of California, Berkeley</b> Research Scientist, Electrical Engineering and Computer Sciences	Berkeley, California
2010–2011	<b>National Institute of Standards and Technology</b> Research Scientist, Visualization and Usability Group	Gaithersburg, Maryland
2009–2010	<b>Brown University</b> Postdoctoral Researcher, Computer Science Department	Providence, Rhode Island
2008	<b>Microsoft Research</b> Research Intern, Security and Privacy Group	Redmond, Washington
2008	Research Intern, VIBE Group	
2006	<b>PARC</b> Research Intern, Computer Science Laboratory	Palo Alto, California

## publications\*

### refereed journal publications

“Protect Me Tomorrow”: Commitment Nudges to Remedy Compromised Passwords  
*Peer, E., Frik, A., Gilsenan, C., and Egelman, S.* ACM Trans. Comput.-Hum. Interact. (Aug. 2024).  
*Association for Computing Machinery.*

The Medium is the Message:

How Secure Messaging Apps Leak Sensitive Data to Push Notification Services

*Samarin, N., Sanchez, A., Chung, T., Juleemun, A. D. B., Gilsenan, C., Merrill, N., Reardon, J., and Egelman, S.* Proceedings on Privacy Enhancing Technologies (PoPETS) 2024.4 (2024) pp. 967–982.

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\*Over 13,000 citations and h-index=52: <https://scholar.google.com/citations?hl=en&user=WN9t4n0AAAAJ>

A Model of Contextual Factors Affecting Older Adults' Information-Sharing Decisions in the U.S.

*Frik, A., Bernd, J., and Egelman, S. ACM Transactions on Computer-Human Interaction 30.1 (Apr. 2023). Association for Computing Machinery.*

Lessons in VCR Repair:

Compliance of Android App Developers with the California Consumer Privacy Act (CCPA)  
*Samarin, N., Kothari, S., Siyed, Z., Bjorkman, O., Yuan, R., Wijesekera, P., Alomar, N., Fischer, J., Hoofnagle, C., and Egelman, S. Proceedings on Privacy Enhancing Technologies (PoPETS) 3 (2023).*

Developers Say the Darnedest Things: Privacy Compliance Processes Followed by Developers of Child-Directed Apps

*Alomar, N., and Egelman, S. Proceedings on Privacy Enhancing Technologies (PoPETS) 4 (2022) pp. 250–273.*

Data Collection Practices of Mobile Applications Played by Preschool-Aged Children

*Zhao, F., Egelman, S., Weeks, H. M., Kaciroti, N., Miller, A. L., and Radesky, J. S. JAMA Pediatrics 174.12 (Dec. 2020).*

Nudge Me Right: Personalizing Online Security Nudges to People's Decision-Making Styles

*Peer, E., Egelman, S., Harbach, M., Malkin, N., Mathur, A., and Frik, A. Computers in Human Behavior 109 (Aug. 2020).*

Disaster Privacy/Privacy Disaster

*Sanfilippo, M. R., Shvartzshnaider, Y., Reyes, I., Nissenbaum, H., and Egelman, S. Journal of the Association for Information Science and Technology (Mar. 2020).*

Can You Pay For Privacy? Consumer Expectations and the Behavior of Free and Paid Apps

*Bamberger, K. A., Egelman, S., Han, C., Elazari, A., and Reyes, I. Berkeley Technology Law Journal 35 (2020).*

The Price is (Not) Right: Comparing Privacy in Free and Paid Apps

*Han, C., Reyes, I., Feal, Á., Reardon, J., Wijesekera, P., Vallina-Rodriguez, N., Elazari, A., Bamberger, K. A., and Egelman, S. Proceedings on Privacy Enhancing Technologies (PoPETS) 3 (2020).*

Investigating Users' Preferences and Expectations for Always-Listening Voice Assistants

*Tabassum, M., Kosiński, T., Frik, A., Malkin, N., Wijesekera, P., Egelman, S., and Lipford, H. R. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 3.4 (Dec. 2019). Association for Computing Machinery.*

Privacy Attitudes of Smart Speaker Users

*Malkin, N., Deatrack, J., Tong, A., Wijesekera, P., Wagner, D., and Egelman, S. Proceedings on Privacy Enhancing Technologies 2019.4 (2019).*

“Won't Somebody Think of the Children?” Examining COPPA Compliance at Scale

*Reyes, I., Wijesekera, P., Reardon, J., On, A. E. B., Razaghpanah, A., Vallina-Rodriguez, N., and Egelman, S. Proceedings on Privacy Enhancing Technologies 2018.3 (2018) pp. 63–83. **Caspar Bowden PET Award***

A Usability Evaluation of Tor Launcher

*Lee, L., Fifield, D., Malkin, N., Iyer, G., Egelman, S., and Wagner, D. Proceedings on Privacy Enhancing Technologies 2017.3 (2017) pp. 87–106.*

The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study

*Tsai, J., Egelman, S., Cranor, L., and Acquisti, A. Information Systems Research 22.2 (2011) pp. 254–268. **AIS Best Publication of 2011 Award / INFORMS Best Published Paper Award (2012)***

P3P Deployment on Websites

*Cranor, L. F., Egelman, S., Sheng, S., McDonald, A. M., and Chowdhury, A. Electronic Commerce Research and Applications 7.3 (2008) pp. 274–293.*

The Real ID Act: Fixing Identity Documents with Duct Tape

*Egelman, S., and Cranor, L. F. I/S: A Journal of Law and Policy for the Information Society 2.1 (2006) pp. 149–183.*

## refereed conference publications

### Security and Privacy Failures in Popular 2FA Apps

*Gilsenan, C., Shakir, F., Alomar, N., and Egelman, S.* Proceedings of the 32nd USENIX Security Symposium (*USENIX Security '23*), 2023.

### In the Room Where It Happens: Characterizing Local Communication and Threats in Smart Homes

*Girish, A., Hu, T., Prakash, V., Dubois, D. J., Matic, S., Huang, D. Y., Egelman, S., Reardon, J., Tapiador, J., Choffnes, D., and Vallina-Rodriguez, N.* Proceedings of the 2023 ACM on Internet Measurement Conference (*IMC '23*), 2023, New York, NY, USA.

### Log: It's Big, It's Heavy, It's Filled with Personal Data!

#### Measuring the Logging of Sensitive Information in the Android Ecosystem

*Lyons, A., Gamba, J., Shawaga, A., Reardon, J., Tapiador, J., Egelman, S., and Vallina-Rodriguez, N.* Proceedings of the 32nd USENIX Security Symposium (*USENIX Security '23*), 2023.

### Can Humans Detect Malicious Always-Listening Assistants?

#### A Framework for Crowdsourcing Test Drives

*Malkin, N., Wagner, D., and Egelman, S.* Proceedings of the ACM Conference On Computer-Supported Cooperative Work And Social Computing (*CSCW '22*), 2022, New York, NY, USA.

### Runtime Permissions for Privacy in Proactive Intelligent Assistants

*Malkin, N., Wagner, D., and Egelman, S.* Eighteenth Symposium on Usable Privacy and Security (*SOUPS 2022*), 2022.

### "You've Got Your Nice List of Bugs, Now What?" Vulnerability Discovery and Management Processes in the Wild

*Alomar, N., Wijesekera, P., Qiu, E., and Egelman, S.* Proceedings of the Sixteenth Symposium on Usable Privacy and Security (*SOUPS 2020*), 2020.

### Actions Speak Louder than Words: Entity-Sensitive Privacy Policy and Data Flow Analysis with PoliCheck

*Andow, B., Mahmud, S. Y., Whitaker, J., Enck, W., Reaves, B., Singh, K., and Egelman, S.* 29th USENIX Security Symposium (*USENIX Security '20*), 2020, Boston, MA.

### Don't Accept Candies from Strangers: An Analysis of Third-Party Mobile SDKs

*Feal, Á., Gamba, J., Tapiador, J., Wijesekera, P., Reardon, J., Egelman, S., and Vallina-Rodriguez, N.* International Conference on Computers, Privacy and Data Protection (*CPDP '20*), 2020.

### A Qualitative Model of Older Adults' Contextual Decision-Making About Information Sharing

*Frik, A., Bernd, J., Alomar, N., and Egelman, S.* Workshop on the Economics of Information Security (*WEIS '20*), 2020.

### Empirical Measurement of Systemic 2FA Usability

*Reynolds, J., Samarin, N., Barnes, J., Judd, T., Mason, J., Bailey, M., and Egelman, S.* Proceedings of the 29th USENIX Security Symposium (*USENIX Security '20*), 2020.

### A Promise Is A Promise: The Effect of Commitment Devices on Computer Security Intentions

*Frik, A., Malkin, N., Harbach, M., Peer, E., and Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (*CHI '19*), 2019.

### Privacy and Security Threat Models and Mitigation Strategies of Older Adults

*Frik, A., Nurgalieva, L., Bernd, J., Lee, J. S., Schaub, F., and Egelman, S.* Proceedings of the 15th Symposium on Usable Privacy and Security (*SOUPS '19*), 2019, Berkeley, CA, USA.

### Information Design in An Aged Care Context

*Nurgalieva, L., Frik, A., Ceschel, F., Egelman, S., and Marchese, M.* Proceedings of the 13th International Conference on Pervasive Computing Technologies for Healthcare (*PervasiveHealth '19*), 2019, New York, NY, USA.

### 50 Ways to Leak Your Data:

#### An Exploration of Apps' Circumvention of the Android Permissions System

*Reardon, J., Feal, A., Wijesekera, P., On, A. E. B., Vallina-Rodriguez, N., and Egelman, S.* Proceedings of the 24th USENIX Security Symposium (*USENIX Security '19*), 2019, Berkeley, CA, USA. **USENIX**

**Security Distinguished Paper Award / AEPD Emilio Aced Personal Data Protection Research Award / CNIL-INRIA Privacy Award**

An Experience Sampling Study of User Reactions to Browser Warnings in the Field

*Reeder, R. W., Felt, A. P., Consolvo, S., Malkin, N., Thompson, C., and Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '18), 2018.

Contextualizing Privacy Decisions for Better Prediction (and Protection)

*Wijesekera, P., Reardon, J., Reyes, I., Tsai, L., Chen, J.-W., Good, N., Wagner, D., Beznosov, K., and Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '18), 2018. **SIGCHI Honorable Mention Award**

Let's go in for a closer look: Observing passwords in their natural habitat

*Pearman, S., Thomas, J., Naeini, P. E., Habib, H., Bauer, L., Christin, N., Cranor, L. F., Egelman, S., and Forget, A.* Proc. of the ACM SIGSAC Conference on Computer & Communications Security (CCS '17), 2017, New York, NY, USA.

Turtle Guard: Helping Android Users Apply Contextual Privacy Preferences

*Tsai, L., Wijesekera, P., Reardon, J., Reyes, I., Egelman, S., Wagner, D., Good, N., and Chen, J.-W.* Proceedings of the 13th Symposium on Usable Privacy and Security (SOUPS '17), 2017.

The Feasibility of Dynamically Granted Permissions:

Aligning Mobile Privacy with User Preferences

*Wijesekera, P., Baokar, A., Tsai, L., Reardon, J., Egelman, S., Wagner, D., and Beznosov, K.* Proceedings of the 2017 IEEE Symposium on Security and Privacy (Oakland '17), 2017.

Do or Do Not, There Is No Try: User Engagement May Not Improve Security Outcomes

*Forget, A., Pearman, S., Thomas, J., Acquisti, A., Christin, N., Cranor, L. F., Egelman, S., Harbach, M., and Telang, R.* Proc. of the 12th Symposium on Usable Privacy and Security (SOUPS '16), 2016.

Behavior Ever Follows Intention? A Validation of the Security Behavior Intentions Scale (SeBIS)

*Egelman, S., Harbach, M., and Peer, E.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16), 2016. **SIGCHI Honorable Mention Award**

The Anatomy of Smartphone Unlocking: A Field Study of Android Lock Screens

*Harbach, M., Luca, A. D., and Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16), 2016. **SIGCHI Honorable Mention Award**

Keep on Lockin' in the Free World: A Transnational Comparison of Smartphone Locking

*Harbach, M., Luca, A. D., Malkin, N., and Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16), 2016. **SIGCHI Honorable Mention Award**

The Teaching Privacy Curriculum

*Egelman, S., Bernd, J., Friedland, G., and Garcia, D.* Proceedings of the 47th ACM technical symposium on Computer Science Education (SIGCSE '16), 2016.

Android Permissions Remystified: A Field Study on Contextual Integrity

*Wijesekera, P., Baokar, A., Hosseini, A., Egelman, S., Wagner, D., and Beznosov, K.* 24th USENIX Security Symposium (USENIX Security 15), 2015, Washington, D.C.

Is This Thing On? Communicating Privacy on Ubiquitous Sensing Platforms

*Egelman, S., Kannavara, R., and Chow, R.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '15), 2015, New York, NY, USA.

Scaling the Security Wall: Developing a Security Behavior Intentions Scale (SeBIS)

*Egelman, S., and Peer, E.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '15), 2015, New York, NY, USA. **SIGCHI Honorable Mention Award**

Fingerprinting Web Users through Font Metrics

*Fifield, D., and Egelman, S.* Proceedings of the 19th international conference on Financial Cryptography and Data Security (FC'15), 2015.

Somebody's Watching Me? Assessing the Effectiveness of Webcam Indicator Lights

*Portnoff, R., Lee, L., Egelman, S., Mishra, P., Leung, D., and Wagner, D.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '15), 2015, New York, NY, USA.

- Are You Ready to Lock? Understanding User Motivations for Smartphone Locking Behaviors  
*Egelman, S., Jain, S., Portnoff, R. S., Liao, K., Consolvo, S., and Wagner, D.* Proc. of the ACM SIGSAC Conference on Computer & Communications Security (CCS '14), 2014, New York, NY, USA.
- The Effect of Developer-Specified Explanations for Permission Requests on Smartphone User Behavior  
*Tan, J., Nguyen, K., Theodorides, M., Negron-Arroyo, H., Thompson, C., Egelman, S., and Wagner, D.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '14), 2014, Toronto, Canada.
- The Importance of Being Earnest [in Security Warnings]  
*Egelman, S., and Schechter, S.* Proceedings of the 17th international conference on Financial Cryptography and Data Security (FC'13), 2013, Okinawa, Japan.
- My Profile Is My Password, Verify Me! The Privacy/Convenience Tradeoff of Facebook Connect  
*Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13), 2013, Paris, France.
- Does My Password Go up to Eleven? The Impact of Password Meters on Password Selection  
*Egelman, S., Sotirakopoulos, A., Muslukhov, I., Beznosov, K., and Herley, C.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13), 2013, Paris, France.
- When It's Better to Ask Forgiveness than Get Permission: Attribution Mechanisms for Smartphone Resources  
*Thompson, C., Johnson, M., Egelman, S., Wagner, D., and King, J.* Proceedings of the Ninth Symposium on Usable Privacy and Security (SOUPS '13), 2013, Newcastle, United Kingdom.
- Android permissions: user attention, comprehension, and behavior  
*Felt, A. P., Ha, E., Egelman, S., Haney, A., Chin, E., and Wagner, D.* Proceedings of the Eighth Symposium on Usable Privacy and Security (SOUPS '12), 2012, Washington, D.C. **SOUPS Best Paper Award (2012) / SOUPS Impact Award (2017)**
- Facebook and privacy: it's complicated  
*Johnson, M., Egelman, S., and Bellare, S. M.* Proceedings of the Eighth Symposium on Usable Privacy and Security (SOUPS '12), 2012, Washington, D.C.
- It's all about the Benjamins: Incentivizing users to ignore security advice  
*Christin, N., Egelman, S., Vidas, T., and Grossklags, J.* Proceedings of the 15th international conference on Financial Cryptography and Data Security (FC'11), 2011, Gros Islet, St. Lucia.
- Oops, I did it again: mitigating repeated access control errors on facebook  
*Egelman, S., Oates, A., and Krishnamurthi, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11), 2011, Vancouver, BC, Canada.
- Of passwords and people: measuring the effect of password-composition policies  
*Komanduri, S., Shay, R., Kelley, P. G., Mazurek, M. L., Bauer, L., Christin, N., Cranor, L. F., and Egelman, S.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11), 2011, Vancouver, BC, Canada. **SIGCHI Honorable Mention Award**
- Timing is everything?: the effects of timing and placement of online privacy indicators  
*Egelman, S., Tsai, J., Cranor, L. F., and Acquisti, A.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '09), 2009, Boston, MA, USA.
- It's No Secret: Measuring the Security and Reliability of Authentication via 'Secret' Questions  
*Schechter, S., Brush, A. J. B., and Egelman, S.* Proceedings of the 2009 IEEE Symposium on Security and Privacy (Oakland '09), 2009, Los Alamitos, CA, USA.
- It's not what you know, but who you know: a social approach to last-resort authentication  
*Schechter, S., Egelman, S., and Reeder, R. W.* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '09), 2009, Boston, MA, USA.
- Crying wolf: an empirical study of SSL warning effectiveness  
*Sunshine, J., Egelman, S., Almuhammedi, H., Atri, N., and Cranor, L. F.* Proceedings of the 18th USENIX Security Symposium (SSYM'09), 2009, Montreal, Canada.
- Family accounts: a new paradigm for user accounts within the home environment

*Egelman, S., Brush, A. J. B., and Inkpen, K. M.* Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work (CSCW '08), 2008, San Diego, CA, USA.

You've Been Warned: An empirical study of the effectiveness of browser phishing warnings  
*Egelman, S., Cranor, L. F., and Hong, J.* CHI '08: Proceeding of The 26th SIGCHI Conference on Human Factors in Computing Systems (CHI '08), 2008, Florence, Italy. **SIGCHI Honorable Mention Award**

Phinding Phish: Evaluating Anti-Phishing Tools

*Zhang, Y., Egelman, S., Cranor, L. F., and Hong, J.* Proceedings of the 14th Annual Network & Distributed System Security Symposium (NDSS '07), 2007, San Diego, CA.

Power Strips, Prophylactics, and Privacy, Oh My!

*Gideon, J., Egelman, S., Cranor, L., and Acquisti, A.* Proceedings of the Second Symposium on Usable Privacy and Security (SOUPS '06), 2006, Pittsburgh, PA.

An analysis of P3P-enabled web sites among top-20 search results

*Egelman, S., Cranor, L. F., and Chowdhury, A.* Proceedings of the 8th international conference on Electronic commerce: The new e-commerce: innovations for conquering current barriers, obstacles and limitations to conducting successful business on the internet (ICEC '06), 2006, Fredericton, New Brunswick, Canada.

### refereed workshop publications

Challenges in Inferring Privacy Properties of Smart Devices:

Towards Scalable Multi-Vantage Point Testing Methods

*Girish, A., Prakash, V., Egelman, S., Reardon, J., Tapiador, J., Huang, D. Y., Matic, S., and Vallina-Rodriguez, N.* Proceedings of the 3rd International CoNEXT Student Workshop (CoNEXT-SW '22), 2022, Rome, Italy.

Identifying and Classifying Third-Party Entities in Natural Language Privacy Policies

*Hosseini, M. B., Pradhan, K., Reyes, I., and Egelman, S.* Proceedings of the Second Workshop on Privacy in Natural Language Processing (PrivateNLP '20), 2020.

Do You Get What You Pay For? Comparing The Privacy Behaviors of Free vs. Paid Apps

*Han, C., Reyes, I., On, A. E. B., Reardon, J., Feal, A., Bamberger, K. A., Egelman, S., and Vallina-Rodriguez, N.* The Workshop on Technology and Consumer Protection (ConPro '19), 2019.

Privacy Controls for Always-Listening Devices

*Malkin, N., Egelman, S., and Wagner, D.* Proceedings of the New Security Paradigms Workshop (NSPW '19), 2019, San Carlos, Costa Rica.

On The Ridiculousness of Notice and Consent: Contradictions in App Privacy Policies

*Okoyomon, E., Samarin, N., Wijesekera, P., On, A. E. B., Vallina-Rodriguez, N., Reyes, I., Feal, A., and Egelman, S.* The Workshop on Technology and Consumer Protection (ConPro '19), 2019.

Better Late(r) than Never: Increasing Cyber-Security Compliance by Reducing Present Bias

*Frik, A., Egelman, S., Harbach, M., Malkin, N., and Peer, E.* Workshop on the Economics of Information Security (WEIS '18), 2018.

"What Can't Data Be Used For?" Privacy Expectations about Smart TVs in the U.S.

*Malkin, N., Bernd, J., Johnson, M., and Egelman, S.* Proceedings of the European Workshop on Usable Security (EuroUSEC '18), 2018.

Personalized Security Messaging: Nudges for Compliance with Browser Warnings

*Malkin, N., Mathur, A., Harbach, M., and Egelman, S.* Proceedings of the European Workshop on Usable Security (EuroUSEC '17), 2017.

"Is Our Children's Apps Learning?" Automatically Detecting COPPA Violations

*Reyes, I., Wijesekera, P., Razaghpanah, A., Reardon, J., Vallina-Rodriguez, N., Egelman, S., and Kreibich, C.* The Workshop on Technology and Consumer Protection (ConPro '17), 2017.

Information Disclosure Concerns in The Age of Wearable Computing

*Lee, L. N., Lee, J. H., Egelman, S., and Wagner, D.* Proceedings of the NDSS Workshop on Usable Security (USEC '16), 2016.

- The Myth of the Average User:  
Improving Privacy and Security Systems through Individualization  
*Egelman, S., and Peer, E.* Proceedings of the 2015 Workshop on New Security Paradigms (NSPW '15), 2015, Twente, The Netherlands.
- Teaching Privacy: What Every Student Needs to Know  
*Friedland, G., Egelman, S., and Garcia, D.* Proceedings of the 46th SIGCSE technical symposium on computer science education (Workshop), 2015.
- U-PriSM 2: The Second Usable Privacy and Security for Mobile Devices Workshop  
*Chiasson, S., Crawford, H., Egelman, S., and Irani, P.* Proc. of the 15th International Conference on Human-computer Interaction with Mobile Devices and Services (MobileHCI '13), 2013, Munich, Germany.
- Markets for Zero-day Exploits: Ethics and Implications  
*Egelman, S., Herley, C., and Oorschot, P. C. van* Proceedings of the 2013 Workshop on New Security Paradigms Workshop (NSPW '13), 2013, Banff, Alberta, Canada.
- Choice Architecture and Smartphone Privacy: There's A Price for That  
*Egelman, S., Felt, A. P., and Wagner, D.* The 2012 Workshop on the Economics of Information Security (WEIS '12), 2012, Berlin, Germany.
- How Good Is Good Enough? The sisyphian struggle for optimal privacy settings  
*Egelman, S., and Johnson, M.* Proceedings of the Reconciling Privacy with Social Media Workshop (CSCW '12 Workshop), 2012, Seattle, WA.
- It's Not Stealing if You Need It: A Panel on the Ethics of Performing Research Using Public Data of Illicit Origin  
*Egelman, S., Bonneau, J., Chiasson, S., Dittrich, D., and Schechter, S.* Proceedings of the 16th International Conference on Financial Cryptography and Data Security (FC'12), 2012.
- How to ask for permission  
*Felt, A. P., Egelman, S., Finifter, M., Akhawe, D., and Wagner, D.* Proceedings of the 7th USENIX conference on Hot Topics in Security (HotSec'12), 2012, Bellevue, WA.
- I've got 99 problems, but vibration ain't one: a survey of smartphone users' concerns  
*Felt, A. P., Egelman, S., and Wagner, D.* Proceedings of the second ACM workshop on Security and privacy in smartphones and mobile devices (SPSM '12), 2012, Raleigh, North Carolina, USA.
- Toward Privacy Standards Based on Empirical Studies  
*Egelman, S., and McCallister, E.* The Workshop on Web Tracking and User Privacy (W3C Workshop), 2011, Princeton, NJ.
- Please Continue to Hold: An Empirical Study on User Tolerance of Security Delays  
*Egelman, S., Molnar, D., Christin, N., Acquisti, A., Herley, C., and Krishnamurthi, S.* Workshop on the Economics of Information Security (WEIS '10) (WEIS '10), 2010, Cambridge, MA.
- Tell Me Lies: A Methodology for Scientifically Rigorous Security User Studies  
*Egelman, S., Tsai, J., and Cranor, L. F.* Proceedings of the Workshop on Studying Online Behavior (CHI '10 Workshop), 2010, Atlanta, GA.
- This is Your Data on Drugs: Lessons Computer Security Can Learn from the Drug War  
*Molnar, D., Egelman, S., and Christin, N.* Proceedings of the 2010 Workshop on New Security Paradigms (NSPW '10), 2010, Concord, Massachusetts, USA.
- Security user studies: methodologies and best practices  
*Egelman, S., King, J., Miller, R. C., Ragouzis, N., and Shehan, E.* CHI '07 Extended Abstracts on Human Factors in Computing Systems (CHI EA '07), 2007, San Jose, CA, USA.
- The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study  
*Tsai, J., Egelman, S., Cranor, L., and Acquisti, A.* Proceedings of the 2007 Workshop on the Economics of Information Security (WEIS '07), 2007, Pittsburgh, PA, USA.
- Studying the Impact of Privacy Information on Online Purchase Decisions  
*Egelman, S., Tsai, J., Cranor, L. F., and Acquisti, A.* Proceedings of the Workshop on Privacy and HCI: Methodologies for Studying Privacy Issues (CHI '06 Workshop), 2006, Montreal, Canada.

## book chapters and magazine articles

50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions System

Reardon, J., Feal, Á., Wijesekera, P., On, A. E. B., Vallina-Rodriguez, N., and Egelman, S. ;*login*: 2019, USENIX Association.

Predicting Privacy and Security Attitudes

Egelman, S., and Peer, E. *Computers and Society*, 2015, ACM.

Crowdsourcing

Egelman, S., Chi, E., and Dow, S. *Ways of Knowing in HCI*, 2013, Springer.

Helping users create better passwords

Ur, B., Kelley, P. G., Komanduri, S., Lee, J., Maass, M., Mazurek, M., Passaro, T., Shay, R., Vidas, T., Bauer, L., Christin, N., Cranor, L. F., Egelman, S., and Lopez, J. ;*login*: 2012, USENIX Association.

Suing Spammers for Fun and Profit

Egelman, S. ;*login*: 2004, USENIX Association.

Installation

Egelman, S. *Peter Norton's Complete Guide to Linux*, 1999, Macmillan Computer Publishing.

User Administration

Egelman, S. *Peter Norton's Complete Guide to Linux*, 1999, Macmillan Computer Publishing.

## awards and recognition

2022

### **CNIL-INRIA Privacy Award**

*50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions System*, with J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, and N. Vallina-Rodriguez.

### **Emilio Aced Personal Data Protection Research Award**

*50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions System*, with J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, and N. Vallina-Rodriguez.

2020

### **Caspar Bowden Award for Outstanding Research in Privacy Enhancing Technologies**

*"Won't Somebody Think of the Children?" Examining COPPA Compliance at Scale*, with I. Reyes, P. Wijesekera, J. Reardon, A. Elazari, A. Razaghpanah, and N. Vallina-Rodriguez.

2019

### **USENIX Security Symposium Distinguished Paper Award**

*50 Ways to Leak Your Data: An Exploration of Apps' Circumvention of the Android Permissions System*, with J. Reardon, A. Feal, P. Wijesekera, A. Elazari Bar On, and N. Vallina-Rodriguez.

2018

### **SIGCHI Honorable Mention Award (Best Paper Nominee)**

*Contextualizing Privacy Decisions for Better Prediction (and Protection)*, with P. Wijesekera, J. Reardon, I. Reyes, L. Tsai, J.-W. Chen, N. Good, D. Wagner, and K. Beznosov.

2017

### **Symposium on Usable Privacy and Security (SOUPS) Impact Award**

*Android Permissions: User Attention, Comprehension, and Behavior*, with A. P. Felt, E. Ha, A. Haney, E. Chin, and D. Wagner.

### **Elected ACM Senior Member**

Association for Computing Machinery (ACM)

2016

### **Symposium on Usable Privacy and Security (SOUPS) Distinguished Poster Award**

*Risk Compensation in Home-User Computer Security Behavior: A Mixed-Methods Exploratory Study*, with S. Pearman, A. Kumar, N. Munson, C. Sharma, L. Slyper, L. Bauer, and N. Christin.



- SIGCHI Honorable Mention Award (Best Paper Nominee)**  
*Behavior Ever Follows Intention? A Validation of the Security Behavior Intentions Scale (SeBIS)*, with M. Harbach and E. Peer.
- SIGCHI Honorable Mention Award (Best Paper Nominee)**  
*The Anatomy of Smartphone Unlocking: A Field Study of Android Lock Screens*, with M. Harbach and A. De Luca.
- SIGCHI Honorable Mention Award (Best Paper Nominee)**  
*Keep on Lockin' in the Free World: A Transnational Comparison of Smartphone Locking*, with M. Harbach, A. De Luca, and N. Malkin.
- 2015 **SIGCHI Honorable Mention Award (Best Paper Nominee)**  
*Scaling the Security Wall: Developing a Security Behavior Intentions Scale*, with E. Peer.
- 2012 **AIS Best Publication of 2011**  
*The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study*, with J. Tsai, L. Cranor, and A. Acquisti.
- ISR Best Published Paper**  
*The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study*, with J. Tsai, L. Cranor, and A. Acquisti.
- SOUPS Best Paper Award**  
*Android Permissions: User Attention, Comprehension, and Behavior*, with A. P. Felt, E. Ha, A. Haney, E. Chin, and D. Wagner.
- 2011 **SIGCHI Honorable Mention Award (Best Paper Nominee)**  
*Of Passwords and People: Measuring the Effect of Password-Composition Policies*, with S. Komanduri, R. Shay, P. G. Kelley, M. Mazurek, L. Bauer, N. Christin, and L. F. Cranor.
- 2008 **SIGCHI Honorable Mention Award (Best Paper Nominee)**  
*You've Been Warned: An Empirical Study on the Effectiveness of Web Browser Phishing Warnings*, with L. Cranor and J. Hong.
- 2006 **Tor Graphical User Interface Design Competition**  
 Phase 1 Overall Winner, with L. Cranor, J. Hong, P. Kumaraguru, C. Kuo, S. Romanosky, J. Tsai, and K. Vaniea.
- Publisher's Clearing House Finalist**  
*I may already be a winner.*

## expert testimony and reports

- 2024 Expert witness for the plaintiffs in *Garner v. Amazon.com, Inc., No. 2:21-cv-00750 (W.D. Wash.)*. I provided a report and testimony explaining how in-home "virtual personal assistants" work, as well as explaining the associated privacy concerns based on the relevant research literature.
- 2024 Expert witness for the plaintiffs in *Lopez et al. v. Apple, Inc., No. 4:19-cv-04577-JSW (N.D. Cal.)*. I provided a report explaining how in-home "virtual personal assistants" work, as well as explaining the associated privacy concerns based on the relevant research literature.
- 2024 Expert witness for the plaintiffs in *Martinez et al. v. D2C, LLC d/b/a UNIVISION NOW, No. 1:23-cv-21394-RNS (S.D. Fla.)*. I provided a report and testimony explaining how the Meta Pixel functions and how it was used to transmit consumers' personally-identifiable information in violation of the Video Privacy Protection Act (VPPA).
- 2024 Expert witness for the plaintiffs in *Bloom v. Zuffa LLC, No. 2:22-cv-00412-RFB-BNW (D. Nev.)*. I provided a report and testimony explaining how the Meta Pixel functions and how it was used to transmit consumers' personally-identifiable information in violation of the Video Privacy Protection Act (VPPA).
- 2024 Expert witness for the plaintiffs in *Clark, et. al. v. Yodlee, Inc., No: 3:20-cv-05991-SK (N.D. Cal.)*. I provided a report and testimony explaining basic data protection concepts and consumer privacy expectations.

2024	Independent expert witness appointed by the court in <i>Czarnionka v. The Epoch Times Association, Inc.</i> , No. 1:22-cv-6348 (S.D.N.Y.). I was asked to perform a technical analysis to confirm that the terms of the injunctive relief were being followed.
2023-2024	Expert witness for the plaintiffs in <i>Frasco v. Flo Health, et al.</i> , No. 3:21-cv-00757 (N.D. Cal.). I provided an expert report and testimony based on my forensic analysis of a mobile app's data collection behaviors (i.e., privacy analysis). I was deposed and also provided rebuttal reports of opposing experts.
2023-2024	Expert witness for the California Department of Justice in <i>NetChoice, LLC v. Bonta</i> , No. 5:22-cv-08861. I provided a declaration opposing the motion to dismiss.
2022	Expert witness for the plaintiffs in <i>Hart, et al. v. TWC Product and Technology LLC</i> , No. 4:20-cv-3842-JST. I provided a rebuttal report and testimony about mobile app data collection behaviors.
2022	Expert witness for the District of Columbia Office of the Attorney General in <i>District of Columbia v. Town Sports International LLC</i> . I provided a rebuttal report and testimony on proper surveying methodology.
2021	Expert witness testifying before the U.S. Senate (Committee on Commerce, Science, and Transportation), hearing on "Protecting Kids Online: Internet Privacy and Manipulative Marketing." Testimony available at: <a href="https://www.commerce.senate.gov/2021/5/protecting-kids-online-internet-privacy-and-manipulative-marketing">https://www.commerce.senate.gov/2021/5/protecting-kids-online-internet-privacy-and-manipulative-marketing</a>
2017-2019	Expert witness for the plaintiffs in <i>Vizio, Inc., Consumer Privacy Litigation</i> , No. 8:16-ml-02693-JLS-KES, assisting with discovery strategy and providing explanations of relevant privacy research on users' willingness to pay for privacy in order to assist in quantifying damages.
2016	Expert witness for the FTC in <i>FTC v. Amazon.com, Inc.</i> , No. C14-1028-JCC, providing testimony on human-computer interaction (HCI) evaluation methods and critiquing opposing expert's report.
2014-2015	Expert witness for the plaintiffs in <i>Doe vs. Twitter, Inc.</i> , No. CGC-10-503630, providing explanations of relevant privacy research on users' willingness to pay for privacy in order to assist in quantifying damages.
2014	Expert witness for the plaintiffs in <i>Levy v. Universal Parking of Florida, LLC</i> No. 13-cv-22122 (S.D. Fla.), providing written testimony on basic human-computer interaction concepts as they relate to smartphone usage.
2013	Expert witness for the plaintiffs in <i>LinkedIn User Privacy Litigation</i> , No. 12-cv-03088-EJD (N.D. Cal.), providing explanations of information security concepts and providing original research on users' privacy expectations in order to demonstrate and quantify damages.
2012	Expert witness for the plaintiffs in <i>Netflix Privacy Litigation</i> , No. 5:11-cv-00379-EJD (N.D. Cal.), providing explanations of relevant privacy research and the economics of information privacy in order to quantify damages.

## grants awarded

2023–2026	<b>NSA: Improving Security and Safety of Neural Networks through Robust Training, Noise Augmentation, and Safety Metrics (H98230-23-C-0275)</b> \$750,000 Co-PI (PI: Michael Mahoney, International Computer Science Institute)
2023–2026	<b>NSF: Measuring, Validating and Improving upon App-Based Privacy Nutrition Labels (CNS-2247951/2247952/2247953)</b> \$600,000 Principal Investigator (Collaborative with Adam Aviv, George Washington University; Chris Kanich, University of Illinois at Chicago)

2022–2025	<b>NSF: Developer Implementation of Privacy in Software Systems (CCF-2217771/2217772)</b> Principal Investigator (Collaborative with Primal Wijesekera, International Computer Science Institute; Jon Atwell and Julian Nyarko, Stanford University)	\$750,000
2022–2026	<b>KACST-UCB Center of Excellence for Secure Computing</b> Senior Personnel (PI: David Wagner, University of California, Berkeley)	\$6,460,000
2021–2022	<b>CITRIS: Auditing the Compliance of California Consumer Privacy Regulations at Scale</b> Principal Investigator (Collaborative with Zubair Shafiq, University of California, Davis)	\$60,000
2019	<b>Google: ASPIRE: SDK Traffic Identification at Scale</b> Principal Investigator	\$75,000
2018-2022	<b>NSF: Mobile Dynamic Privacy and Security Analysis at Scale (CNS-1817248)</b> Principal Investigator	\$668,475
2018-2022	<b>NSF: Contextual Integrity: From Theory to Practice (CNS-1801501/1801307/1801316)</b> Principal Investigator (Collaborative with Helen Nissenbaum, Cornell University; and Norman Sadeh, Carnegie Mellon University)	\$1,199,462
2018-2022	<b>NSF: Increasing Users' Cyber-Security Compliance by Reducing Present Bias (CNS-1817249)</b> Principal Investigator	\$558,018
2018-2023	<b>NSA: The Science of Privacy: Implications for Data Usage (H98230-18-D-0006)</b> Principal Investigator (Co-PI: Michael Tschantz, International Computer Science Institute)	\$3,236,424
2018-2019	<b>DHS: Scaling Contextual Privacy to MDM Environments (FA8750-18-2-0096)</b> Principal Investigator	\$480,000
2018-2019	<b>Rose Foundation: AppCensus: Mobile App Privacy Analysis at Scale</b> Principal Investigator (Co-PI: Irwin Reyes, International Computer Science Institute)	\$40,000
2018	<b>Cisco: Access Controls for an IoT World</b> Principal Investigator	\$99,304
2018	<b>CLTC: Privacy Analysis at Scale</b> Principal Investigator	\$50,000
2018	<b>CLTC: Secure Internet of Things for Senior Users</b> Co-PI (PI: Alisa Frik, International Computer Science Institute)	\$60,590
2017	<b>Mozilla: Towards Usable IoT Access Controls in the Home</b> Principal Investigator	\$46,000
2017	<b>Data Transparency Lab (DTL) / AT&amp;T: Transparency via Automated Dynamic Analysis at Scale</b> Principal Investigator	\$55,865
2017	<b>CLTC: Secure &amp; Usable Backup Authentication</b> Co-PI (PI: David Wagner, University of California, Berkeley)	\$48,400
2016 - 2017	<b>NSF: Teaching Security in CSP (CNS-1636590)</b> Co-PI (PI: Julia Bernd, ICSI)	\$200,000
2016 - 2017	<b>DHS: A Platform for Contextual Mobile Privacy (FA8750-16-C-0140)</b> Principal Investigator	\$664,378
2016 - 2018	<b>CLTC: The Security Behavior Observatory</b> Principal Investigator	\$195,962
2016	<b>CLTC: Using Individual Differences to Tailor Security Mitigations</b> Principal Investigator	\$100,000
2015 - 2018	<b>NSF/BSF: Using Individual Differences to Personalize Security Mitigations (CNS-1528070/BSF-2014626)</b> Principal Investigator (Collaborative with Eyal Peer, Bar-Ilan University)	\$724,732

2015 - 2019	<b>NSF: Security and Privacy for Wearable and Continuous Sensing Platforms (CNS-1514211/1514457/1513584)</b> Principal Investigator (Collaborative with David Wagner, University of California, Berkeley; and Franziska Roesner, University of Washington)	\$1,200,000
2014 - 2016	<b>NSF: Teachers' Resources for Online Privacy Education (DGE-1419319)</b> Co-PI (PI: Gerald Friedland, ICSI)	\$300,000
2014 - 2017	<b>NSA: User Security Behavior</b> Subcontract (PIs: Lorrie Cranor, Rahul Telang, Alessandro Acquisti, and Nicholas Christin; Carnegie Mellon University)	\$200,000
2014	<b>Google: Improving Security Warnings by Examining User Intent</b> Principal Investigator	\$71,500
2013 - 2015	<b>NSF: Designing Individualized Privacy and Security Systems (CNS-1343433/1343451)</b> Principal Investigator (Collaborative with Eyal Peer, Carnegie Mellon University)	\$132,620
2013 - 2016	<b>NSF: A Choice Architecture for Mobile Privacy and Security (CNS-1318680)</b> Co-PI (PI: David Wagner, University of California, Berkeley)	\$500,000
2010	<b>Google: Designing Usable Certificate Dialogs in Chrome</b> Principal Investigator	\$60,000

## patents awarded

2023	Automatic identification of applications that circumvent permissions and/or obfuscate data flows (US Patent 11,689,551)
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## professional activities

### program committees

2024	IEEE Security & Privacy; Workshop on Economics and Information Security (WEIS); Contextual Integrity (CI) Symposium
2023	Privacy Enhancing Technologies Symposium (PETS); IEEE Security & Privacy; Workshop on Economics and Information Security (WEIS)
2022	Contextual Integrity (CI) Symposium
2021	Workshop on Economics and Information Security (WEIS)
2020	ACM CCS; Workshop on Economics and Information Security (WEIS); Symposium on Usable Privacy and Security (SOUPS); USENIX Security
2019	Privacy Enhancing Technologies Symposium (PETS); Workshop on Economics and Information Security (WEIS); Symposium on Usable Privacy and Security (SOUPS)
2018	ACM SIGCHI (Human Factors in Computing Systems); Privacy Enhancing Technologies Symposium (PETS); Workshop on Economics and Information Security (WEIS); ACM Conference on Computer and Communications Security (CCS); Symposium on Usable Privacy and Security (SOUPS); IEEE Security & Privacy ("Oakland")
2017	ACM SIGCHI (Human Factors in Computing Systems); USENIX Security; Privacy Enhancing Technologies Symposium (PETS); New Security Paradigms Workshop (NSPW), <b>Co-Chair</b> ; Workshop on Economics and Information Security (WEIS); ACM Conference on Computer and Communications Security (CCS); Symposium on Usable Privacy and Security (SOUPS)

- 2016 Workshop on the Economics of Information Security (WEIS), **Chair**; New Security Paradigms Workshop (NSPW), **Co-Chair**; ACM SIGCHI (Human Factors in Computing Systems); USENIX Security; Symposium on Usable Privacy and Security (SOUPS); ACM WWW; Financial Cryptography and Data Security; Privacy Enhancing Technologies Symposium (PETS)
- 2015 Symposium on Usable Privacy and Security (SOUPS); USENIX Security; ACM SIGCHI (Human Factors in Computing Systems); Privacy Enhancing Technologies Symposium (PETS); Workshop on the Economics of Information Security (WEIS); ACM WWW; Financial Cryptography and Data Security
- 2014 ACM SIGCHI (Human Factors in Computing Systems); Financial Cryptography and Data Security; ACM WWW; Privacy Enhancing Technologies Symposium (PETS)
- 2013 ACM SIGCHI (Human Factors in Computing Systems); Symposium on Usable Privacy and Security (SOUPS); New Security Paradigms Workshop (NSPW); Anti-Phishing Working Group eCrime Researchers Summit
- 2012 Symposium on Usable Privacy and Security (SOUPS); New Security Paradigms Workshop (NSPW)
- 2011 Symposium On Usable Privacy and Security (SOUPS); New Security Paradigms Workshop (NSPW); Computers, Freedom, and Privacy (CFP) Conference (poster session co-chair); Software and Usable Security Aligned for Good Engineering (SAUSAGE) Workshop, **Co-Chair**
- 2010 Symposium On Usable Privacy and Security (SOUPS)
- 2008 Conference on Information and Knowledge Management (CIKM)
- 2007 ACM SIGCHI Workshop - Security User Studies: Methodologies and Best Practices; Anti-Phishing Working Group eCrime Researchers Summit (poster session co-chair)
- 2006 Computers, Freedom, and Privacy (CFP) Conference

**standards committees**

- 2007-2008 W3C Web Security Context (WSC) Working Group
- 2004-2006 W3C Platform for Privacy Preferences (P3P) 1.1 Working Group

**leadership roles**

- 2024-Now Advisory Board Member, Electronic Privacy Information Center (EPIC)
- 2012-Now Director, Berkeley Laboratory for Usable and Experimental Security (BLUES)
- 2021-2023 Member, ICSI Scientific Leadership Council
- 2006-2008 Legislative Concerns Chair / Board of Directors, National Association of Graduate and Professional Students (NAGPS)
- 2006-2008 Vice President for External Affairs, Carnegie Mellon Graduate Student Assembly

**teaching**

- Fall 2019 **Usable Privacy and Security** University of California, Berkeley  
Designed and taught a course as part of the School of Information's Masters in Cybersecurity program. Duties included course design and development, grading assignment and exams, supervising class projects, and holding office hours.
- Spring 2017, Spring 2018 **Human Factors in Computer Security and Privacy** Brown University  
Instructor for a module on "user interfaces for security" as part of the Executive Masters in Cybersecurity program. Duties included course design and development, grading assignments and exams, supervising thesis projects, and holding office hours.

- Fall 2007 **Information Security & Privacy (46-861)** Carnegie Mellon University  
Teaching assistant duties included developing course materials (topics for lectures, assignments, and exams), grading assignments and exams, holding office hours, and mentoring students about semester-long projects.
- Spring 2006 **Computers and Society (15-290)** Carnegie Mellon University  
Teaching assistant duties included giving guest lectures, creating assignments and exams, grading assignments and exams, holding office hours, and mentoring students about semester-long projects.
- Fall 2003 **Information Security (CS 451)** University of Virginia  
Teaching assistant duties included giving guest lectures, creating assignments and exams, grading assignments and exams, and holding office hours.
- Fall 2003 **Intellectual Property (TCC 200)** University of Virginia  
Teaching assistant duties included grading assignments and holding office hours.
- Spring 2003,  
Spring 2004 **Advanced Software Development Methods (CS 340)** University of Virginia  
Teaching assistant duties included grading and holding office hours.
- Fall 2002 **Engineering Software (CS 201J)** University of Virginia  
Teaching assistant duties included grading assignments and holding office hours.