2024 Norm Hardy Prize Awarded by Foresight Institute for 'Advances in Usable Security'

In an age where reliable computer security is critical, Foresight Institute proudly announces Dr. Serge Egelman, Dr. Alisa Frik, Conor Gilsenan, and Prof. Eyal Peer as winners of the inaugural 2024 Norm Hardy Prize for their significant contribution to the field of usable security.

This prize celebrates work building upon the vision of the late computer scientist, Norm Hardy, best known for identifying the confused deputy vulnerability. His most significant contribution to the field was KeyKOS, a capability-secure operating system that ran on commodity hardware, as well as creating core parts of capability-secure languages and protocols. Hardy underscored the necessity of building inherently secure systems complemented by interaction designs that enable users to operate these systems securely and intuitively.

Established in 1986, Foresight Institute is a leading nonprofit and public interest organization focused on emerging world-shaping technologies. Foresight Institute encourages responsible advancements in transformative technologies, aiming to steer innovations towards solutions for urgent global challenges.

"In what kind of architecture can the deputy use each permission only for the purpose it was given, without being led to use them for other purposes?"
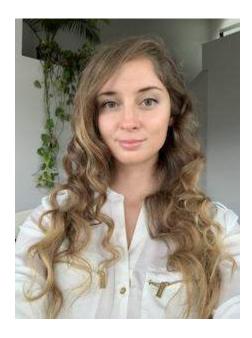– Norm Hardy

Published Paper: "Protect Me Tomorrow": Commitment Nudges to Remedy Compromised Passwords https://dl.acm.org/doi/10.1145/3689038

Project Summary and People:

Internet users often neglect important security actions (e.g., installing security updates or changing passwords) because they interrupt users' main task at inopportune times. Commitment nudges, such as reminders and promises, have been found to be effective at reducing procrastination in other domains. In a series of online experiments, we explored the effects of reminders and promises on users' willingness to change a compromised password, enable automatic updates, backups, and two-factor authentication. We find that adding an option to delay the task increases the share of people willing to eventually change their password considerably. Critically, the option to delay yields this overall increase without reducing the share of people choosing to change their password immediately. Additionally, most participants who promised to change their password later, or asked to be reminded to do so, indeed followed through on their commitment, leading to a net positive effect. Reminding participants of their previous commitment further increased this effect. We also demonstrated how tailoring nudges to individual traits and decision-making styles can lead to considerably better outcomes, increasing nudges' effectiveness up to four times compared to administering "one-size-fits-all" nudges.

Dr. Alisa Frik

Dr. Alisa Frik is a research scientist at the International Computer Science Institute (ICSI). She is a member of the Usable Security and Privacy research group and the Berkeley Laboratory for Usable and Experimental Security (BLUES). She applies her expertise in social sciences, behavioral and experimental economics, decision-making, behavior change, and choice architecture to investigate privacy and security attitudes, behaviors, expectations and preferences of regular and underrepresented populations of online users and software developers. She explores how contextual and human factors, including trust, heuristics and biases, and behavioral interventions, such as personalized nudges, affect users' privacy and security behaviors and decisions. She focuses not only on web and mobile privacy and security, but also on emerging technologies in healthcare, Internet of Things, digital advertising, smart voice assistants, Augmented Reality, and Artificial Intelligence. She is experienced in survey and interview design, online, lab and field experiments, experience sampling, and other mixed methods (including quantitative and qualitative analyses). She has obtained a Ph.D. degree in Economics at the School of Social Sciences, University of Trento, Italy.

Visit [Alisa's website](#) to learn more about her current research, publications, or to access her CV.

Dr. Serge Egelman

Dr. Serge Egelman is Research Director of the Usable Security & Privacy Group at the International Computer Science Institute (ICSI) and also holds an appointment in the Department of Electrical Engineering and Computer Sciences (EECS) at the University of California, Berkeley. He leads the Berkeley Laboratory for Usable and Experimental Security (BLUES), which is the amalgamation of his ICSI and UCB research groups. Serge's research focuses on the intersection of privacy, computer security, and human-computer interaction, with the specific aim of better understanding how people make decisions surrounding their privacy and security, and then creating data-driven improvements to systems and interfaces. This has included human subjects research on social networking privacy, access controls, authentication mechanisms, web browser security warnings, and privacy-enhancing technologies. His work has received multiple best paper awards, including seven ACM CHI Honorable Mentions, the 2012 Symposium on Usable Privacy and Security (SOUPS) Distinguished Paper Award for his work on smartphone application permissions, as well as the 2017 SOUPS Impact Award, and the 2012 Information Systems Research Best Published Paper Award for his work on consumers' willingness to pay for online privacy. He received his PhD from Carnegie Mellon University and prior to that was an undergraduate at the University of Virginia. He has also performed research at NIST, Brown University, Microsoft Research, and Xerox PARC.

Conor Gilsenan

Conor joined BLUES (Berkeley Laboratory for Usable and Experimental Security) in 2019 as a CS doctoral student at the University of California, Berkeley.

While Conor's research encompasses usable security and privacy, he is particularly interested in building tools to help people overcome the inherent usability challenges in authentication and account recovery systems. Prior to embarking on academic research, Conor worked in industry as a software engineer for almost 10 years.

Prof. Eyal Peer

Eyal is a social psychologist and behavioral decision researcher, with a focus on Judgment & Decision-Making processes and their applications for Behavioral Public Policy. Eyal's research examines how Choice Architecture and Nudges can be used to help people make better decisions for themselves, for others, and for the public good.

Eyal has a Ph.D. and M.A. in Psychology from School of Education at Hebrew University, B.A. in Behavioral Sciences from Ruppin Academic Center, and.completed a Postdoctoral fellowship, with Fulbright scholarship, at Carnegie Mellon University Heinz College of Public Policy

Eyal is the co-founder, with Dr. Roni Lotan, of For a Change: Applied Research Lab for Behavioral Solutions in Health and Sustainability www.forachange.org.il