

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: Understanding and Optimising Choice architectures for Privacy and Security

Speaker: Dr. Eran Toch
 Tel Aviv University

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Chaired by: Dr Lim Youliang, Brian, Assistant Professor, School of Computing
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Abstract:

Choice architectures, the design of interfaces in which choices are presented to users, have a tremendous effect on people's decisions. Even subtle changes in the choice architecture, such as the selection of default options, can significantly alter the decisions of users, nudging them to specific directions, and even change the way they perceive their possibilities. In this talk, we will discuss several studies that analysed and optimised choice architectures to enhance users' privacy and security decisions. We will start by reviewing the relation between the economic view of choice architecture and the design of actual user interfaces for making choices in the context of data privacy and security. We will introduce concepts such as population coverage and fairness that quantitatively model the choice architecture, and see how these concepts can be used to empirically analyse systems such as social networks and security warning systems. Finally, we will learn how choice architectures can be optimised to reflect users' actual preferences, and how we can effectively nudge users towards a more secure behaviour.

Biodata:

Eran is a Senior Lecturer (equivalent to Assistant Professor) at the Department of Industrial Engineering at Tel Aviv University. Eran holds a Ph.D. from the Technion - Israel Institute of Technology and was a post-doctoral fellow at the School of Computer Science at Carnegie Mellon University. Eran's research interest are information systems, information privacy, human-computer interaction and big-data analysis. Eran's research group is now working on various projects that revolve around usable security and privacy, with applications to smart cities, mobile computing, and cyber-security. The group's projects are funded by agencies such as Israel Science Foundation (ISF), EU Horizon 2020, U.S. DARPA, Israel Ministry of Science, NRF/ICRC, and other national and international

programs.