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# SOUPS 2013



Proceedings of the  
**Ninth Symposium On Usable  
Privacy and Security**

Newcastle, UK  
July 24-26, 2013  
<http://cups.cs.cmu.edu/soups/>

**Carnegie Mellon University**  
**5000 Forbes Avenue**  
**Pittsburgh, PA 15213**

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## Foreword

Welcome to the Ninth Symposium On Usable Privacy and Security! This year’s program features 15 technical papers, three workshops, 25 posters, 5 posters/papers published in the past year at other conferences, a panel, two lightning talks and demo sessions, and an invited talk. On Thursday evening SOUPS 2013 attendees will enjoy a dinner at Alnwick Garden.

This year we received 51 technical paper submissions. The program committee provided two rounds of reviews. In the first round papers received at least three reviews. In the second round, papers that had received one or more reviews better than “weak reject” in the first round received additional reviews. The goal of the second round was to ensure that a consistent standard of acceptance could be applied across all papers and, to this end, papers received as many as six reviews. We held an in-person program committee meeting. Fifteen papers were selected for presentation and publication.

SOUPS 2013 features an invited talk by Harold Thimbleby on “Security & Safety Overlaps.” Professor Thimbleby is well known for his work in human-computer interaction, but he recently turned his attention more specifically to human-computer interaction in the medical context after one of his students spent time in intensive care.

The closing session will feature a panel titled: “Who Sets the Privacy Bar.” Who decides where the privacy bar should be set and how users can adjust it? Panelists will discuss the forces at play in the privacy space – governments, businesses, and the users – and the convergent and divergent interests these communities have in user-managed privacy. After what is sure to be a lively discussion, we will conclude with the traditional SOUPS ice cream social.

This is the ninth year of SOUPS and the first time SOUPS has been held outside of the United States. We are excited to bring SOUPS across the Atlantic and enlarge the SOUPS community. Thanks to PaCT Lab for volunteering to host this event at Northumbria University.

We would like to thank all of the authors and the members of the technical papers committee and organizing committee for helping to produce this program. We are grateful to everyone whose assistance with logistical arrangements made this event possible: the staff at Northumbria University, and the staff at CyLab and the Institute for Software Research at Carnegie Mellon University. We would also like to thank CyLab, Facebook, GSMA, Google, Microsoft, Blackberry, the US National Science Foundation for their sponsorship of this event, and ACM for publishing our proceedings in the ACM Digital Library. SOUPS 2013 is held in cooperation with ACM SIGCHI.

**Lorrie Faith Cranor**  
General Chair  
Carnegie Mellon University

**Lujo Bauer**  
Technical Papers Co-Chair  
Carnegie Mellon University

**Konstantin Beznosov**  
Technical Papers Co-Chair  
University of British Columbia

## **SOUPS 2013 Organization**

General Chair:	Lorrie Faith Cranor, Carnegie Mellon University
Invited Talks Chair:	Ross Anderson, University of Cambridge, England
Lightning Talks and Demos Chair:	Yang Wang, Syracuse University, USA
Local Activities Co-Chairs:	Lynne Coventry, Northumbria University, England Linda Little, Northumbria University England
Panels Chair:	Marc Langheinrich, University of Lugano, Switzerland
Posters Co-Chairs:	Mike Just, Glasgow Caledonian University, Scotland Kirstie Hawkey, Dalhousie University
Technical Papers Co-Chairs:	Lujo Bauer, Carnegie Mellon University Konstantin Beznosov, University of British Columbia
Tutorials and Workshops Chair:	Sonia Chiasson, Carleton University

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Alessandro Acquisti, Carnegie Mellon University, USA	Sebastian Moller, Technische Universitat Berlin and Telekom Innovation Laboratories, Germany
Dirk Balfanz, Google, USA	Paul Von oorschot, Carleton University, Canada
Robert Biddle, Carleton University, Canada	Sameer Patil, Helsinki Institute for Information Technology, Finland and Indiana University, USA
Sunny Consolvo, Google, USA	Emilee Rader, Michigan State University, USA
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Serge Egelman, University of California, Berkeley, USA	Michael K. Reiter, University of North Carolina at Chapel Hill, USA
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	Mary Ellen Zurko, Cisco

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Mathias Beckerle and Leonardo Augusto Martucci..... Paper 2

### **CASA: Context-Aware Scalable Authentication**

Eiji Hayashi, Sauvik Das, Shahriyar Amini, Jason Hong, Ian Oakley ..... Paper 3

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# SOUPS 2013 Program

## Wednesday, July 24

8 - 9 am: **Breakfast and registration**

9 am – 12 Noon: **morning workshop sessions**

- Workshop on Home Usable Privacy and Security (HUPS)
- Workshop on Risk Perception in IT Security and Privacy
- A Turn for the Worse: Trustbusters for User Interfaces Workshop

Noon - 1 pm: **Lunch**

1 – 4:30 pm: **afternoon workshop sessions**

- Workshop on Home Usable Privacy and Security (HUPS)
- Workshop on Risk Perception in IT Security and Privacy
- A Turn for the Worse: Trustbusters for User Interfaces Workshop

5 – 7 pm: **Poster Session with dinner reception**

## Thursday, July 25

8 - 9 am: **Breakfast**

9 am - 9:20 am: **welcome and awards presentation**

9:20-10:45 am: **Authentication and Authorization- Chair Robert Reeder (Google)**

### **When it's Better to Ask Forgiveness than Get Permission: Attribution Mechanisms for Smartphone Resources**

Christopher Thompson, Maritza Johnson, Serge Egelman, David Wagner, and Jennifer King (UC Berkeley)

### **Formal Definitions for Usable Access Control Rule Sets – From Goals to Metrics**

Mathias Beckerle (Technische Unibersitat Darmstadt) and Leonardo Augusto Martucci (Karlstad University)

### **CASA: Context-Aware Scalable Authentication**

Eiji Hayashi, Sauvik Das, Shahriyar Amini, and Jason Hong (Carnegie Mellon University) and Ian Oakley (University of Madeira)

10:45-11:10 am: **break**

11:10 am - 12:35 pm: **SOUPS de jour- Chair, Serge Egelman (UC Berkeley)**

**Retrospective Privacy: Managing Longitudinal Privacy in Online Social Networks**

Oshrat Ayalon and Eran Toch (Department of Industrial Engineering, Tel Aviv University)

**Confused Johnny: When Automatic Encryption Leads to Confusion and Mistakes**

Scott Ruoti, Nathan Kim, Ben Burgon, Timothy van der Horst, and Kent Seamons (Brigham Young University)

**Your Attention Please: Designing security-decision UIs to make genuine risks harder to ignore**

Cristian Bravo-Lillo, Lorrie Faith Cranor, Julie Downs, Saranga Komanduri, and Robert W. Reeder (Carnegie Mellon University), Stuart Schechter (Microsoft Research), and Manya Sleeper (Carnegie Mellon University)

12:35 – 1:30 pm: **Lunch**

1:30 – 2:30 pm: **Keynote Talk** Harold Thimbleby, Swansea University

**Security and safety overlaps**

Safety is a dual of security: while security is about stopping bad people doing bad things, safety is about stopping good people doing bad things. However, by definition, there are no good people who want to do bad things and this changes everything. This talk, based in experience of medical safety particularly with embedded computers, explores the cultural misdirection that presents system error as human error, and the ubiquitous consequences of that. The dual process model of human cognition (popularized by Nobel Prize winner Daniel Kahneman) is shown to lead to a pro-active role for engineering approaches to improve safety. We thus show some automated techniques that can be used to criticize defective designs in hindsight, can be used proactively in procurement, or can be used to improve future systems. If we could miraculously improve medical engineering, hospitals would kill fewer people. The practical problem facing us is therefore to find out how to align the interests of victims with the interests of the providers, another overlap between security and safety.

2:30 – 3:45 pm: **Lightning Talks**, Session chair: Alain Forget (Carnegie Mellon University)

- Too Smart for Your Own Good: Regulatory Beginnings for Ubiquitous Computing - Janice Tsai (Microsoft Research)
- Why mobile privacy policies suck, and the need to design for trust in an age of complexity - Patrick Walshe (GSMA)
- Understanding location-based privacy decision making - Aristeia Maria Zafeiropoulou (University of Southampton)
- Applying contextual integrity to incentivised location sharing - Luke Hutton (University of St Andrews)
- Designing defenses against socio-technical attacks - Ana Ferreira (University of Luxembourg)
- Interactive User Requirements Extraction for Security and Privacy - Akira Kanaoka (National Institute of Information and Communications Technology, Japan)
- Data leakage from contactless payment cards - Martin Emms (Newcastle University)
- Ethics as a Service - Stuart Schechter (Microsoft Research)
- Mimicry as a Security Interaction Design Lens - Arne Renkema-Padmos (TU Darmstadt)
- Enhancing Location Disclosure by Distinguishing between Public and Private Spaces - Jeremy Wood (LocationAnonymization)
- Device Dash: An Educational Computer Security Game - Era Vuksani (MIT Lincoln Laboratory)



3:45 - 4:15 pm: **break**

4:15-5:40 pm: **Privacy** – *Chair, Sebastian Möller* (Technische Universität Berlin and Telekom Innovation Laboratories)

**What Matters to Users? Factors that Affect Users' Willingness to Share Information with Online Advertisers**

Pedro G. Leon and Blase Ur (Carnegie Mellon University), Yang Wang (Syracuse University), Manya Sleeper, Rebecca Balebako, Richard Shay, and Lujó Bauer (Carnegie Mellon University), Mihai Christodorescu (Qualcomm Research Silicon Valley), and Lorrie Faith Cranor (Carnegie Mellon University)

**Do Not Embarrass: Re-Examining User Concerns for Online Tracking and Advertising**

Lalit Agarwal, Nisheeth Shrivastava, Sharad Jaiswal, and Saurabh Panjwani (Bell Labs India)

**Sleights of Privacy: Framing, Disclosures, and the Limits of Transparency**

Idris Adjerid, Alessandro Acquisti, Laura Brandimarte, and George Loewenstein (Carnegie Mellon University)

6 - 9 pm: **SOUPS dinner at Alnwick Garden.** *Transportation will be provided.*

The Alnwick Garden is one of the most exciting contemporary gardens on earth. A garden for gardeners with a design that looks to the future. It's a stunning attraction and a floral wonderland. You can see acres of fascinating plants, water sculptures and the infamous Poison Garden. The landscape is eclectic, from the gentle waves of colour and scent in the Rose Garden to the riotous, spellbinding water displays of the centrepiece the Grand Cascade. The pergola-covered paths of the rose garden combine shrub and climbing roses with clematis and honeysuckle, and the Ornamental Garden features the best of European garden design and planting. In the Serpent Garden, eight water sculptures nestle in the coils of a topiary serpent, while the Poison Garden holds dangerous plants and their stories. A short walk from the Garden is Alnwick Castle, one of the largest inhabited castles in England, and proudly known as 'The Windsor of the North'. Built as a medieval fortress, today it is home to the Duke and Duchess of Northumberland and their family. Alnwick Castle was featured as Hogwarts in the first two Harry Potter films. Scenes filmed at the castle include the first Quidditch lesson in Harry Potter and The Philosopher's Stone and the crash landing of the flying Ford Anglia in Harry Potter and The Chamber of Secrets.

**Friday, July 26**

8 - 9 am: **Breakfast**

9 - 9:20 am: **Lightning Talks**, Session chair: Alain Forget (Carnegie Mellon University)

- Telepathwords - Stuart Schechter (Microsoft Research)
- Online privacy: a matter of market and publisher's will – Ivan Chardin (AVG Innovation)
- Security Behavior Observatory – Alain Forget (Carnegie Mellon University)

9:20 – 10:45 am: **Mobile Devices** - *Chair, Robert Biddle (Carleton University)*

**Modifying Smartphone User Locking Behavior**

Dirk Van Bruggen, Shu Liu, Mitch Kajzer, Aaron Striegel, and Charles R. Crowell (University of Notre Dame) and John D'Arcy (University of Delaware)

**Exploring the Design Space of Graphical Passwords on Smartphones**

Florian Schaub, Marcel Walch, Bastian Könings, and Michael Weber (Ulm University)

**“Little Brothers Watching You:” Raising Awareness of Data Leaks on Smartphones**

Rebecca Balebako (Carnegie Mellon University), Jaeyeon Jung (Microsoft Research), Wei Lu (Microsoft), Lorrie Cranor (Carnegie Mellon University), and Carolyn Nguyen (Microsoft)

10:45 am - 11:10 am: **break**

11:10 - 12:35 pm: **Passwords** - *Chair, Sameer Patil (Helsinki Institute for Information Technology)*

**On The Ecological Validity of a Password Study**

Sascha Fahl, Matthew Smith, and Marian Harbach (DCSEC, Leibniz University Hannover)

**Usability and Security Evaluation of GeoPass: a Geographic Location-Password Scheme**

Julie Thorpe and Brent MacRae (University of Ontario Institute of Technology) and Amirali Salehi-Abari (University of Toronto)

**Memory Retrieval and Graphical Passwords**

Elizabeth Stobert and Robert Biddle (Carleton University)

12:35 – 1:30 pm: **lunch**

1:30 – 3 pm: panel session – **Who Sets the Privacy Bar?**

Privacy is very personal, but for users to control their online privacy they often have to rely on companies and other organizations to provide privacy tools, or governments to set privacy regulations. Who decides where the privacy bar should be set and how users can adjust it? Panelists will discuss the forces at play in the privacy space - governments, businesses, and the users - and the convergent and divergent interests these communities have in user-managed privacy. Panelists will try to identify ways these groups can work together to improve the capabilities of users to manage their privacy while having effective online interactions.

Moderator: Ken Klingenstein, Internet2

Lorrie Cranor, Carnegie Mellon University

Konstantin (Kosta) Beznosov, University of British Columbia

Robin Wilton, Technical Outreach for Identity and Privacy, the Internet Society (ISOC)

James Varga, CEO, miiCard.com

3 pm – **SOUPS ice cream social**

# Workshop on Home Usable Privacy and Security (HUPS)

*The workshop will be held in Northumbria Building 324*

9:00-9:15 *opening remarks*

9:15-10:15 **Keynote**

## **Accelerating innovation in technologies for the home**

Ratul Mahajan (senior researcher, Microsoft Research)

A range of compelling applications in the home, from security to health care to energy reduction, can be enabled by connected devices (e.g. sensors). But experimental work on these applications is hampered by two challenges: 1) considerable custom engineering is required to ensure that hardware and software prototypes work robustly; and 2) recruiting and managing more than a handful of homes is difficult and cost-prohibitive. To lower these barriers, Microsoft Research is developing Lab-of-Things@Home (LoT@Home), a communal, research platform. LoT@Home will consist of a large number of geographically distributed homes, each running a common framework for implementing experimental applications. Participating research groups recruit and contribute a small number of homes, and in return, they can run experiments on homes recruited by others. I will describe the design of LoT@Home, what it takes to conduct experiments, and the security and privacy issues that it raises.

Bio: Ratul Mahajan is a Senior Researcher at Microsoft Research and an Affiliate Professor at the University of Washington. His research interests include all aspects of networked systems. His current work focuses on smart home technologies, software-defined networks, and network verification, and his past work spans Internet routing and measurements, incentive-compatible protocol design, practical models for wireless networks, and vehicular networks. He has published over 30 papers in top-tier venues such as SIGCOMM, SOSP, MobiCom, and CHI. He is a winner of the ACM SIGCOMM Rising Star award, the William R. Bennett prize, the SIGCOMM best paper award, and Microsoft Research Graduate Fellowship. He obtained his Ph.D. from the University of Washington (2005) and B.Tech. from Indian Institute of Technology, Delhi (1999)

10:15-10:45 **break**

10:45-11:45 **session I on people**, *Chair: Lujo Bauer Carnegie Mellon University*

DigiSwitch: Who is viewing my daily activity? Robyn Evans (Indiana University - Bloomington), Kay Connelly (Indiana University- Bloomington), and Kelly Caine (Clemson University)

The User IS the Enemy, and (S)he Keeps Reaching for that Bright Shiny Power Button!: Stuart Schechter (Microsoft Research)

Empowering Consumer Security and Privacy Choices: Tamara Denning and Tadayoshi Kohno (University of Washington)

12:00-1:00 **Lunch**

1:00-2:20 **session II on access control**, *Chair: Tadayoshi Kohno (UW)*

The Current State of Access Control for Smart Devices in Homes: Blase Ur (Carnegie Mellon University) and Jaeyeon Jung and Stuart Schechter (Microsoft Research)

Policies in Context: Factors Influencing the Elicitation and Categorisation of Context-Sensitive Security Policies: Shamal Faily, John Lyle, and Ivan Flechais (University of Oxford), Andrea Atzeni and Cesare Camerani (Politecnico di Torino), Hans Myrhaug and Ayse Goker (AmbieSense Ltd), and Robert Kleinfeld (Fraunhofer FOKUS)

Authentication in the Home: Elizabeth Stobert and Robert Biddle (Carleton University)

Under control: Requirements for access control for personal data: Michelle L. Mazurek, Lujo Bauer, and Gregory R. Ganger (Carnegie Mellon University) and Michael K. Reiter (University of North Carolina)

2:20-2:50 **Break**

2:50-3:50 **session III on privacy**, *Chair: Rainer Böhme* (University of Münster)

The Valuation of Smart Metering Privacy: Dipayan Ghosh, Jubo Yan, William Schulze, Dawn Schrader, and Stephen Wicker (Cornell University)

Read My Lips: Towards Use of the Microsoft Kinect as a Visual-Only Automatic Speech Recognizer: Peter McKay, Bryan Clement, Sean Haverty, Elijah Newton, and Kevin Butler (University of Oregon)

PETs in Your Home - How Smart is That?: Stefan Korff (University of Münster, Department of Information Systems)

3:50-4:20 **closing discussion**

### **Workshop Organizers:**

Lujo Bauer | Carnegie Mellon University, USA

Rainer Böhme | Universität Münster, DE

A.J. Brush | Microsoft Research, Redmond

Tamara Denning | University of Washington, USA

Jason Hong | Carnegie Mellon University, USA

Jaeyeon Jung | Microsoft Research, USA (co-chair)

Tadayoshi Kohno | University of Washington, USA (co-chair)

Anmol Sheth | Technicolor, USA

# Workshop on Risk Perception in IT Security and Privacy

*This Workshop will be held in Northumbria Building 433*

## 9:00 Perceptions

- *Internet Risk Perception: Severity, Likelihood, and Benefit* - Daniel LeBlanc, Robert Biddle
- *Too Much, Too Late: What Just-in-Time Notifications Really Indicate* - David G. Gordon, Janice Tsai
- *Perception of risk of disclosure of health information* - Ester Moher, Khaled El Emam
- *Beyond usability: Security Interactions as Risk Perceptions* - L. Jean Camp

## 10:30 Break

## 11:00 Mobile

- *Risk Management in the Era of BYOD* - T. Andrew Yang, Alan T. Yang
- *Visualizing Risk by Example: Demonstrating Threats Arising From Android Apps* - M. Hettig, E. Kiss, J.-F. Kassel, S. Weber, M. Harbach, M. Smith
- *Perceived Security Risks in Mobile Interaction* - Larry Koved, Shari Trewin, Cal Swart, Kapil Singh, Pau-Chen Cheng, Suresh Chari

## Noon Lunch

## 1:00 Infrastructure

- *Using Attacker Capabilities and Motivations in Estimating Security Risk* - Lotfi ben Othmane, Harold Weffers, Martijn Klabbbers
- *Risk Perception in IT Security* - Mary Ellen Zurko, Mike Lake
- *The Risk of Propagating Standards* - Matt Bishop, Candice Hoke

## 2:30 Break

## 3:00 Personalization

- *Risk Perception and the Acceptance of New Security Technology* - Marian Harbach, Sascha Fahl, Matthew Smith
- *Can we afford to remain apathetic towards security apathy?* - Alexander Mirnig, Sandra Trösterer, Elke Beck, Manfred Tscheligi
- *Should the Users be Informed? On Differences in Risk Perception between Android and iPhone Users* - Zinaida Benenson, Lena Reinfelder
- *Towards Optimal Risk Mitigation Through Individualization* - Serge Egelman, Eyal Peer

## 4:30 Workshop wrap-up

**Workshop Organizers:** Larry Koved, IBM T.J. Watson Research Center  
L. Jean Camp, Indiana University

# A Turn for the Worse: Trustbusters for User Interfaces Workshop

*The workshop will be held in Northumbria Building 317*

9:00 – 10:00 **Introduction** to the Workshop and Keynote from Jean Camp "Trust and Risk: Perceptions and Reality"

10:00 – 10:30 **Break**

10:30 – 12:00 **Presentation of accepted papers**

- **Trustbusters in Systems dealing with vulnerable User groups**
  - Advertising as a Trustbuster in Online Peer-to-Peer Healthcare, Pam Briggs, Elizabeth Sillence, Claire Hardy
  - Survey on Sense of Security for Registering Privacy Information to Return Refugee Supporting System, Kaori Okumura, Yashiaki Shiraishi, Akira Iwata
- **Trustbusters in Design**
  - No Choice, No Trust? Sandra Trösterer, Alexander Mirnig, Elke Beck, Manfred Tscheligi
  - Trusted to Deliver Excellence - Trust Design in All Touchpoints, Virpi Roto, Tae Yong Kim, Hanna Markgren, Carolina Rebelo, Kajsa Sundeson, Iiro Lindborg
  - Privacy Design Patterns and Anti-Patterns, Nick Doty, Mohit Gupta

12:00 – 1:00 **Lunch**

1:00 – 2:30 **Interactivity/Discussion: issues identified based on the papers**

2:30 – 3:00 **Break**

3:00 - 4:15 **Interactivity/Discussion: research questions and future directions**

4:15 – 4:30 **Wrap-up**

## Workshop Organizers

Christina Hochleitner  
CURE

Sameer Patil  
HIIT, Indiana University

Trenton Schulz  
Norwegian Computing Center

Rob Reeder  
Google

Marc Busch  
CURE

Manfred Tscheligi  
CURE, University of Salzburg

## Posters

### **UserCSP- User Specified Content Security Policies**

Kailas Patil (National University of Singapore), Tanvi Vyas, Frederik Braun, and Mark Goodwin (Mozilla Corporation), and Zhenkai Liang (National University of Singapore)

### **Anti-phishing System Link-back to Login Page from Footprint**

Saki Naguchi, Nami Hidaka, and Manabu Okamoto (Kanagawa Institute of Technology)

### **Input Password Only with Arrow Keys**

Nami Hidaka, Saki Naguchi, and Manabu Okamoto (Kanagawa Institute of Technology)

### **Identity Management Futures: Assessing Privacy and Security Concerns of the Young and Old**

Lisa Thomas and Pam Briggs (Northumbria University)

### **Information Disclosure between Different Groups on Social Networking Sites**

Lili Nemeč Zlatolas and Tatjana Welzer Druzovec (University of Maribor, Faculty of Electrical Engineering and Computer Science)

### **Hide and Seek: On the disparity of browser security settings**

Alexios Mylonas, Nikolaos Tsalis, and Dimitris Gritzalis (Athens University of Economics & Business)

### **Towards an app-driven Mobile Authentication Model**

Nicholas Micallef, Mike Just, Lynne Baillie, and Gunes Kayacik (Glasgow Caledonian University)

### **Handsfree ZRTP – A Novel Key Agreement for RTP, Protected by Voice Commitments**

Dominik Schürmann and Stephan Sigg (TU Braunschweig)

### **Balancing Usability and security in the business cloud authentication**

Joona Kurikka and Marko Nieminen (Aalto University)

### **Influence of the knowledge level about information security on Anshin factors**

Dai Nishioka, Yoshia Saito, and Yuko Murayama (Software and Information Science, Iwate Prefectural University, Japan)

### **SHRT – New method of URL shortening including relative word of target URL**

Soojin Yoon, Jeongeun Park, Changkuk Choi, and Seungjoo Kim (CIST(Center for Information Security Technologies), Korea University)

### **Similarity Assessment Metrics of Hybrid Images for Graphical Password**

Madoka Hasegawa, Keita Takahashi, and Shigeo Kato (Utsunomiya University)

### **Visualizing Disclosure of Sensitive Data on Android Application with Static Analysis**

Takuya Sakashita, Shinpei Ogata, Haruhiko Kaiya, and Kenji Kaijiri (Shinshu University)

### **Memorability of Computer Security Posters as Affected by Message Type**

Mitchell Kajzer, Charles R. Crowell, and Angela Ferreira (University of Notre Dame), John D'Arcy (University of Delaware), and Dirk VanBruggen and Aaron Striegel (University of Notre Dame)

### **Android + Oopen Wi-Fis = Broken SSL?**

Marten Oltrogge, Sascha Fahl, Marian Harbach, and Matthew Smith (DCSEC, Leibniz University Hannover)

### **Visual Password Checker**

Kyriakos Kafas (University of Cambridge, UK) and Nouf Aljaffan and Shujun Li (University of Surrey, UK)

### **Towards a Model for Analysing Anti-Phishing Authentication Ceremonies**

Edina Hatunic-Webster, Fred Mtenzi, and Brendan O'Shea (Dublin Institute of Technology)

**Ephemerality in Social Media**

Erik Northrop and Heather Lipford (UNC Charlotte)

**Content, Context, Trust**

Melanie Volkamer and Steffen Bartsch (CASED, TU Darmstadt) and Erik Northrop (UNC Charlotte)

**Understanding and Using Anonymous Credentials**

Zinaida Benenson (University of Erlangen-Nuremberg), Ioannis Krontiris (Goethe University Frankfurt), Dominik Schröder and Alexander Schopf (University of Erlangen-Nuremberg), Kai Rannenberg (Goethe University Frankfurt), and Yannis Stamatiou and Vasia Liagkou (Computer Technology Institute Patras)

**Waiting Makes the Heart Grow Fonder and the Password Grow Stronger: Experiments in Nudging Users to Create Stronger Passwords**

Nathan Malkin, Shriram Krishnamurthi, and David H. Laidlaw (Brown University)

**Exploring user perceptions of authentication scheme security**

Ann Nosseir (British University in Egypt) and Sotirios Terzis (University of Strathclyde)

**Preliminary Investigation of an NFC-Unlock Mechanism for Android**

Sandra Flügge, Hannes Scharf, Sascha Fahl, and Matthew Smith (University of Hannover)

**On the Usability of Secure GUI's**

Atanas Filyanov and Aysegul Nas (Ruhr-University Bochum), Melanie Volkamer (TU Darmstadt), and Marcel Winandy (Ruhr-University Bochum)

**Helping users review and make sense of access policies in organizations**

Pooya Jaferian, Hootan Rashtian, and Konstantin Beznosov (University of British Columbia)

**Posters Showcasing Usable Privacy and Security Papers Published in the Past Year at Other Conferences****The post that wasn't: exploring self-censorship on Facebook**

Manya Sleeper, Rebecca Balebako, Sauvik Das, Amber Lynn McConahy, Jason Wiese, and Lorrie Faith Cranor (Carnegie Mellon University)

*Previously published at CSCW 2013*

**Secure Communication based on Ambient Audio**

Dominik Schürmann and Stephan Sigg (TU Braunschweig)

*Previously published in IEEE Transactions on Mobile Computing 2013*

**Someone To Watch Over Me**

Heather Richter Lipford (University of North Carolina at Charlotte) and Mary Ellen Zurko (Cisco Systems)

*Previously published at NSPW 2012*

**To Deceive or Not to Deceive! Ethical Questions on Phishing Research**

Rasha Salah El-Din (University of York)

*Previously published in the British HCI 2012 Workshop Proceedings*

**Usable security in the Developing World: The Case of Mobile-Based Branchless Banking**

Saurabh Panjwani (Bell Labs India)

*Previously published at ACM DEV 2013 as Practical Receipt Authentication for Branchless Banking*