### Miranda Wei

### mirandawei.com weimf@cs.washington.edu

#### **EDUCATION**

University of Washington

September 2019–present

Ph.D. Candidate, Paul G. Allen School of Computer Science & Engineering

M.S. April 2022, candidacy June 2023

Provisional dissertation title: "Theorizing Everyday Security and Privacy: Towards Sociotechnical

Frames, Better Advice, and Less Abuse"

Advisors: Profs. Tadayoshi Kohno and Franziska Roesner

University of Chicago

September 2013–June 2017

B.A. in Political Science, Minor in Computer Science

Overall GPA: 3.83 (4.0 highest)

"ISIS Anashid and the Logic of Imagined Communities," Departmental Honors Thesis

**London School of Economics** 

September 2015-June 2016

General Course (Direct Enrollment, Study Abroad Program)

Coursework in International Law, International Relations, Foreign Policy Analysis

#### WORK EXPERIENCE

University of Washington

September 2019–Present

Graduate Research Assistant with Profs. Tadayoshi Kohno and Franziska Roesner Seattle, WA, USA

Google November 2023–April 2023

Student Researcher with Dr. Sunny Consolvo

Remote

Google July 2023–October 2023

Research Intern with Drs. Kurt Thomas and Sunny Consolvo

Remote

Google June 2022–September 2022

Research Intern with Drs. Kurt Thomas and Sunny Consolvo

Sunnyvale, CA, USA

University of Maryland September 2018–September 2019

Researcher with Prof. Michelle Mazurek

College Park, MD, USA

University of Chicago SUPERgroup August 2017–September 2019

Researcher with Prof. Blase Ur

Chicago, IL, USA

Chicago Project on Security and Threats (CPOST)

January 2015–August 2017

Analyst; Supervisor; Deputy Research Director with Prof. Robert Pape

Chicago, IL, USA

London School of Economics October 2015–October 2016

Researcher with Prof. Julia Gray

London, UK

TEACHING EXPERIENCE

Teaching Assistant, University of Washington

Spring 2024

CSE 481S: Computer Security Capstone

Teaching Assistant, University of Washington

Winter 2022

CSE 484: Computer Security and Privacy

- 2024 John Karat Award Usable Privacy and Security Student Research Award, annually awarded to top 1-2 graduate students in usable privacy and security
- PETS 2024: Outstanding Reviewer
- USENIX 2023: Distinguished Paper Award for "A Two-Decade Retrospective Analysis of a University's Vulnerability..."
- IMC 2021: Runner-Up for Best Paper for "Polls, Clickbait, and Commemorative..."
- NSF GRFP 2021 Honorable Mention
- CHI 2020: Honorable Mention for Best Paper for "Taking Data Out of Context to Hyper-Personalize Ads..."
- SOUPS 2019: Distinguished Poster Award for "What was that site doing with my Facebook password ..."
- Dean's List, GPA above 3.25, ineligible during study abroad, UChicago, 2013–2015, 2016–2017

#### FELLOWSHIPS AND GRANTS

#### Fellowships:

- Google PhD Fellowship, 2023–2025
- UW College of Engineering Dean's Fellowship, 2019–2020
- UChicago College Research Fellow, 2016–2017

#### **Conference Grants:**

- Student Grant to USENIX Security, August 2024
- Scholarship to Grace Hopper Conference, September 2022
- Student Grant to USENIX SOUPS, August 2022
- Scholarship to Grad Cohort Workshop, April 2021, April 2022
- Diversity Grant to USENIX Security, August 2020
- Scholarship to SecHuman Summer School at Ruhr University Bochum (RUB), June 2019
- Scholarship to SecHuman Summer School at Ruhr University Bochum (RUB), September 2018
- Ford Foundation Stipend to Privacy Enhancing Technologies Symposium (PETS), July 2018
- Student Scholarship to Women in Cybersecurity (WiCyS), March 2018
- Diversity Grant to USENIX Enigma, January 2018
- NSF Student Grant to USENIX SOUPS, June 2017

#### PEER-REVIEWED CONFERENCE AND WORKSHOP PUBLICATIONS

#### 2024

### Understanding Help-Seeking and Help-Giving on Social Media for Image-Based Sexual Abuse

Miranda Wei, Sunny Consolvo, Patrick Gage Kelley, Tadayoshi Kohno, Tara Matthews, Sarah Meiklejohn, Franziska Roesner, Renee Shelby, Kurt Thomas, Rebecca Umbach. *USENIX Security*, Philadelphia, USA, August 2024.

# SoK or So(L)K? On the Quantitative Study of Sociodemographic Factors and Computer Security Behaviors

Miranda Wei, Jaron Mink, Yael Eiger, Tadayoshi Kohno, Elissa Redmiles, Franziska Roesner. USENIX Security, Philadelphia, USA, August 2024.

# "Violation of my body:" Perceptions of AI-generated non-consensual (intimate) imagery

Grace Brigham, Miranda Wei, Tadayoshi Kohno, Elissa M. Redmiles. Symposium on Usable Privacy and Security (SOUPS), Philadelphia, USA, August 2024.

# Sharenting on TikTok: Exploring Parental Sharing Behaviors and the Discourse Around Children's Online Privacy

Sophie Stephenson, Christopher Nathaniel Page, Miranda Wei, Apu Kapadia, Franziska Roesner. ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), Honolulu, USA, May 2024.

### It's Trying Too Hard To Look Real: Deepfake Moderation Mistakes and Identity-Based Bias

Jaron Mink, <u>Miranda Wei</u>, Collins W. Munyendo, Kurt Hugenberg, Tadayoshi Kohno, Elissa M. Redmiles, Gang Wang.

ACM SIGCHI Conference on Human Factors in Computing Systems (CHI), Honolulu, USA, May 2024.

#### 2023

# A Two-Decade Retrospective Analysis of a University's Vulnerability to Attacks Exploiting Reused Passwords

Alexandra Nisenoff, Maximilian Golla, <u>Miranda Wei</u>, Juliette Hainline, Hayley Szymanek, Annika Braun, Annika Hildebrandt, Blair Christensen, David Langenberg, Blase Ur.

USENIX Security, Anaheim, USA, August 2023.

Distinguished Paper Award.

# Skilled or Gullible? Gender Stereotypes Related to Computer Security and Privacy Miranda Wei, Pardis Emami-Naeini, Franziska Roesner, Tadayoshi Kohno.

IEEE Symposium on Security and Privacy (S&P), San Francisco, USA, May 2023.

#### 2022

### Anti-Privacy and Anti-Security Advice on TikTok: Case Studies of Technology-Enabled Surveillance and Control in Intimate Partner and Parent-Child Relationships

Miranda Wei, Eric Zeng, Tadayoshi Kohno, Franziska Roesner.

Symposium on Usable Privacy and Security (SOUPS), Boston, USA, August 2022.

#### 2021

# Polls, Clickbait, and Commemorative \$2 Bills: Problematic Political Advertising on News and Media Websites Around the 2020 U.S. Elections

Eric Zeng, Miranda Wei, Theo Gregersen, Tadayoshi Kohno, and Franziska Roesner. ACM Internet Measurement Conference (IMC), Online, Nov. 2021.

Runner-Up for Best Paper.

# On the Limited Impact of Visualizing Encryption: Perceptions of E2E Messaging Security

Christian Stransky, Dominik Wermke, Johanna Schrader, Nicolas Huaman, Yasemin Acar, Anna Lena Fehlhaber, Miranda Wei, Blase Ur, Sascha Fahl.

Symposium on Usable Privacy and Security (SOUPS), Online, August 2021.

# What Twitter Knows: Characterizing Ad Targeting Practices, User Perceptions, and Ad Explanations Through Users' Own Twitter Data

Miranda Wei, Madison Stamos, Sophie Veys, Nathan Reitinger, Justin Goodman, Margot Herman, Dorota Filipczuk, Ben Weinshel, Michelle L. Mazurek, Blase Ur.

USENIX Security (13% acceptance rate), Online, August 2020.

# Taking Data Out of Context to Hyper-Personalize Ads: Crowdworkers' Privacy Perceptions and Decisions to Disclose Private Information

Julia Hanson\*, <u>Miranda Wei\*</u>, Sophie Veys, Matthew Kugler, Lior Strahilevitz, Blase Ur. \* This is a co-first authored publication.

ACM Conference on Human Factors in Computing Systems (CHI) (24% acceptance rate), April 2020.

Honorable Mention for Best Paper.

2019

# Oh, the Places You've Been! User Reactions to Longitudinal Transparency About Third-Party Web Tracking and Inferencing

Ben Weinshel, Miranda Wei, Mainack Mondal, Euirim Choi, Shawn Shan, Claire Dolin, Michelle L. Mazurek, B. Ur.

ACM Communications and Communication Security (CCS) (16% acceptance rate), London, UK, November 2019.

2018

### "What was that site doing with my Facebook password?" Designing Notifications About Password Reuse

Maximillian Golla, <u>Miranda Wei</u>, Juliette Hainline, Lydia Filipe, Markus Dürmuth, Elissa M. Redmiles, Blase Ur.

ACM Communications and Computer Security (CCS) (17% acceptance rate), Toronto, Canada, October 2018.

### The Password Doesn't Fall Far: How Services Influence Password Choice Miranda Wei, Maximillian Golla, Blase Ur.

Who Are You?! Adventures in Authentication Workshop (WAY), Baltimore, MD, August 2018.

# Exploring User Mental Models of End-to-End Encrypted Communication Tools Ruba Abu-Salma, Elissa M. Redmiles, Blase Ur, Miranda Wei.

Workshop on Free and Open Communications on the Internet (FOCI), Baltimore, MD, August 2018.

# Your Secrets are Safe: How Browsers' Explanations Impact Misconceptions About Private Browsing Mode

Yuxi Wu, Panya Gupta, Miranda Wei, Yasemin Acar, Sascha Fahl, Blase Ur.

The Web Conference (WWW) (15% acceptance rate), Lyon, France, April 2018.

#### LIGHTLY-REVIEWED WORKSHOP PUBLICATIONS AND POSTERS

# Styx++: Reliable Data Access and Availability Using a Hybrid Paxos and Chain Replication Protocol

Ather Sharif, Emilia F. Gan, Miranda Wei.

ACM Conference on Human Factors in Computing Systems, Late Breaking Work (CHI LBW), New Orleans, USA, Apr. 2022.

# What Twitter Knows: Characterizing Ad Targeting Practices, User Perceptions, and Ad Explanations Through Users' Own Twitter Data

Miranda Wei, Madison Stamos, Sophie Veys, Nathan Reitinger, Justin Goodman, Margot Herman,

Dorota Filipczuk, Ben Weinshel, Michelle L. Mazurek, Blase Ur. *PrivacyCon*, Online, July 2021.

### "What was that site doing with my Facebook password?" Designing Notifications About Password Reuse

Miranda Wei, Maximillian Golla, Juliette Hainline, Lydia Filipe, Markus Dürmuth, Elissa M. Redmiles, Blase Ur.

Fifteenth Symposium on Usable Privacy and Security (SOUPS 2019), Santa Clara, CA, 2019. Distinguished Poster Award.

#### OTHER PUBLICATIONS

ISIS Campaign Propaganda Profile. CPOST Report for the Department of Defense. September 2016.

"Eradicating suicide terrorism in Pakistan." *Chicago Tribune*. October 30, 2015. (co-written with Robert Pape)

Spectacular Attack Profiles of AQI, Pakistani Taliban. CPOST Report for the Carnegie Corporation. September 2015.

"Getting ISIS Out of Iraq." The New York Times. April 20, 2015. (co-written with Robert Pape)

#### INVITED TALKS

- UW CSE 564 Graduate Computer Security, 3/2024, Seattle, USA: "(Anti-)Security Advice in Online Abuse Contexts."
- UW CSE How to PhD Seminar, 2/2024, Seattle, USA: Panelist on "Getting the Most out of Your Advising Relationship."
- Google's CS Research Mentorship Program, 11/2023, Online: "CSRMP gStudent Experience Panel." As an invited speaker for the 2023b class of CSRMP, a program dedicated to supporting students from historically marginalized groups in their pursuit of computing research careers, I delivered a talk titled "My gStudent Experience" to a cohort of 209 participants. My talk aimed to equip students with actionable knowledge about research opportunities available at Google, empowering them to navigate their research interests and align them with potential career pathways.
- Berkeley Security Seminar, 11/2023, Online: "(Anti-)Security Advice in Online Abuse Contexts."
- Sparkling Science Seminar, 5/2023, Bochum, Germany: "(Anti-)Security Advice in Online Abuse Contexts."
- BAIR Recsys Reading Group, 4/2023, Berkeley, USA: "What Twitter Knows: Characterizing Ad Targeting Practices, User Perceptions, and Ad Explanations Through Users' Own Twitter Data."
- TO3 Group Lab Meeting, 4/2023, Berkeley, USA: "(Anti-)Security Advice in Online Abuse Contexts."
- U.S. Department of State International Visitor Leadership Program: Current U.S. Social, Political, and Economic Issues for Young European Leaders, 2/2023, Seattle, USA: "Anti-Privacy and Anti-Security Advice on TikTok: Case Studies of Technology-Enabled Surveillance and Control in Intimate Partner and Parent-Child Relationships."
- UW Tech Policy Lab, 11/2022, Seattle, USA: "Anti-Privacy and Anti-Security Advice on TikTok: Case Studies of Technology-Enabled Surveillance and Control in Intimate Partner and Parent-Child Relationships."
- Stanford Security Lunch, 1/2022, Online: "Polls, Clickbait, and Commemorative \$2 Bills: Problematic Political Advertising on News and Media Websites Around the 2020 U.S. Elections."

- MIT CSAIL Security Seminar, 9/2020, Online: "What Twitter Knows: Characterizing Ad Targeting Practices, User Perceptions, and Ad Explanations Through Users' Own Twitter Data."
- UChicago HCI Club, 7/2020, Online: "What Twitter Knows: Characterizing Ad Targeting Practices, User Perceptions, and Ad Explanations Through Users' Own Twitter Data."
- DUB Seminar, 5/2020, Online: "Taking Data Out of Context to Hyper-Personalize Ads: Crowdworkers' Privacy Perceptions and Decisions to Disclose Private Information."
- Mozilla, 4/2020, Online: "Oh, the Places You've Been! User Reactions to Longitudinal Transparency About Third-Party Web Tracking and Inferencing."
- Brave, 2/2020, Online: "Oh, the Places You've Been! User Reactions to Longitudinal Transparency About Third-Party Web Tracking and Inferencing."
- UChicago Psychology and Law Studies Lab (PALS), 1/2020, Chicago & Online: "Taking Data Out of Context to Hyper-Personalize Ads: Crowdworkers' Privacy Perceptions and Decisions to Disclose Private Information."
- PasswordsCon, 11/2018, Stockholm, Sweden: "Everything but the User: Reducing Password Reuse."
- W3C PING, 9/2018, Online: "Your Secrets are Safe: How Browsers' Explanations Impact Misconceptions About Private Browsing Mode."

#### Media Coverage

- Allen School News, August 26, 2024. Looking into places others are not: Allen School's Miranda Wei receives 2024 Karat Award for contributions to usable security and privacy. https://news.cs.washington.edu/2024/08/26/looking-into-places-others-are-not-allen-schools-miranda-wei-receives-2024-karat-award-for-contributions-to-usable-security-and-privacy/
- UW News, August 8, 2024. Many survey respondents rated seeking out sexually explicit 'deepfakes' as more acceptable than creating or sharing them. https://www.washington.edu/news/2024/08/08/sexually-explicit-deepfakes-synthetic-media-public-opinion/
- CNET, August 14, 2018. Why you need a better handle on the WhatsApp, Signal and Telegram apps. https://www.cnet.com/news/you-might-not-really-understand-how-encrypted-messaging-apps-work/
- Securing Bits, November 1, 2023. Gender Stereotypes in Security and Privacy. https://securingbits.com/gender-stereotypes-in-security-and-privacy
- Consumer Reports, June 19, 2018. What Your Web Browser's Incognito Mode Really Does. https://www.consumerreports.org/internet/incognito-mode-web-browser-what-it-really-does/
- Science News for Students, June 6, 2018. Incognito browsing is not as private as most people think. https://www.sciencenewsforstudents.org/article/incognito-browsing-not-private-most-people-think
- Unocero, May 6, 2018. ¿Qué tan realmente privada es tu 'navegación privada'? https://www.unocero.com/como-se-hace/que-tan-realmente-privada-es-tu-navegacion-privada/
- IFL Science!, April 26, 2018. If You Use Your Web Browser's Incognito Mode We've Got Bad News. https://www.iflscience.com/technology/if-you-use-your-web-browsers-incognito-mode-weve-got-bad-news-/

- Indy 100 from the Independent, April 25, 2018. Turns out 'Incognito mode' is not as incognito as you might think. https://www.indy100.com/article/incognito-mode-might-not-be-as-incognito-as-you-think-8321916
- Metro, April 25, 2018. You're completely wrong about what 'Incognito mode' does when you're watching porn. https://metro.co.uk/2018/04/25/completely-wrong-incognito-mode-watching-porn-7496259/
- Mental Floss, April 25, 2018. Why Browsing in Incognito Mode Isn't as Private as You Think. https://www.mentalfloss.com/article/541658/why-browsing-incognito-mode-isnt-private-you-think
- Science News, April 24, 2018. Private web browsing doesn't mean no one is watching. https://www.sciencenews.org/article/internet-privacy-incognito-web-browsing
- The Register, April 24, 2018. Oh dear... Netizens think 'private' browsing really means totally private. https://www.theregister.com/2018/04/24/private\_web\_browsing\_study/

#### SERVICE

#### Organizing:

- Co-Organizer: Gender, Online Safety, and Sexuality (GOSS) Workshop at SOUPS 2024
- Volunteer Coordinator: para.CHI.DUB 2024
- Co-Coordinator: DUB Doctoral Colloquium 2020
- Publicity Co-Chair: EuroUSEC 2020
- Session Chair Student Volunteer: SOUPS 2020

#### Reviewing:

- Program Committee Member: ConPro 2024, WAY 2021, SecHOPE 2023, PoPETS 2024 (Outstanding Reviewer)
- Guest Editor: IEEE Security & Privacy Magazine 2025 Special Issue on Gender and Sexuality in Online Safety
- External Reviewer: CSCW 2020, 2023, CHI LBW 2020, PoPETS 2022, 2023, CHI 2022, 2023, 2024, IEEE S&P Magazine 2024
- Sub-Reviewer: USENIX 2024, IEEE Security & Privacy Magazine 2023
- Poster Jury Member: SOUPS 2020, 2022

### **UW** Community:

- DUB (grassroots cross-departmental alliance) Student Coordinator: 2021-present
- UW PhD Application Reviewer: 2021-present (area chair in 2022, 2023)
- Pre-Application Mentorship Service (PAMS) Co-Organizer/Mentor: 2020-present
- Care Basket Chair for Care Committee (graduate student organization): 2019-2023
- UW New Grad Orientation Co-Organizer: 2020

#### Other:

• Prospective graduate student advising (exchanging emails or taking 1-1 meetings): 5 in 2021, 15 in 2022, 7 in 2023, 1 in 2024

Languages English (native), French (intermediate), Chinese (intermediate), Russian (beginner)

**Programming** Python, R (tidyverse)

Applications LATEX, Qualtrics, Photoshop, Atlas.ti