### Yixin Zou

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### Education

#### 2017 - Present

### University of Michigan | Ann Arbor, MI

Ph.D. in Information

Dissertation committee: Florian Schaub (chair), Alessandro Acquisti, Denise Anthony,

Tawanna Dillahunt

#### 2015 - 2017

### University of Illinois at Urbana-Champaign | Champaign, IL

B.S. in Advertising, minor in Communication

Graduated with the Highest Honor (top 5% in College of Media)

### **Employment**

#### 2017 - Present

#### **Graduate Student Research Assistant**

University of Michigan | Ann Arbor, MI

- Consumer reactions to data breaches and effective notification mechanisms.
- Privacy expectation-risk misalignments in vulnerable populations.
- Usable privacy policy project (usableprivacy.org).
- A multi-stakeholder perspective of privacy in smart homes.
- Privacy attitudes and behaviors of software developers.
- Phishing warnings for online email clients.

### 2020 User Experience Research Intern

Facebook, Privacy & Data Use Team | Remote

- Conducted 1:1 interviews with Facebook users to understand their expectations of the company's data practices.
- Collaborated and communicated insights with product teams and data scientists.

#### 2019 Research Intern

Norton Labs (previously Symantec Research Labs) | Culver City, CA

- Surveyed Internet users' adoption and abandonment of security, privacy and identity theft protection practices (published at CHI 2020).
- Conducted focus groups on computer security customer support for survivors of intimate partner violence (published at USENIX Security 2021).

### 2019 User Experience Research Intern

Mozilla, Firefox Monitor Team | Remote

- Conducted usability testings on wireframe prototypes to inform product design (more details).
- Conducted online experiments on content and format variations of breach notifications.

### Honors & Awards

### 2021 Finalist, Facebook Fellowship

Facebook

Among the top 3.5% of about 2,100 applicants worldwide.

### 2021 Privacy Papers for Policymakers - Student Paper Honorable Mention

**Future of Privacy Forum** 

For "It's a scavenger hunt": Usability of Websites' Opt-Out and Data Deletion Choices.

### 2020 CHI Best Paper Honorable Mention

ACM Conference on Human Factors in Computing Systems

For Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices.

### 2020 Finalist, Facebook Fellowship

Facebook

Among the top 4% of about 1,800 applicants worldwide.

### 2019 UMSI Field Prelim Milestone Distinction

University of Michigan School of Information

The award is given to top 10% of students in this endeavor.

### 2019 NortonLifeLock Fellowship

NortonLifeLock Research Group

Awarded \$20,000 USD. One of the three recipients selected worldwide.

### 2019 CHI Best Paper Honorable Mention

ACM Conference on Human Factors in Computing Systems

For Putting Your Warning Where Your Link Is: Improving and Evaluating Email Phishing Warnings.

#### 2018 SOUPS Distinguished Paper Award

SOUPS 2018: Symposium on Usable Privacy and Security

For "I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach.

#### 2019 UMSI Pre-Candidacy Milestone Distinction

University of Michigan School of Information

The award is given to top 10% of students in this endeavor.

### **Publications**

Journal & Magazine Articles (3)

## 2021 Child Safety in the Smart Home: Parents' Perceptions, Needs, and Mitigation Strategies

Kaiwen Sun, Yixin Zou, Jenny Radesky, Christopher Brooks, Florian Schaub.

Proceedings of the ACM on Human-Computer Interaction (CSCW), to appear.

### 2020 Listen Only When Spoken To: Interpersonal Communication Cues as Smart Speaker Privacy Controls

Abraham H. Mhaidli, Manikandan K. Venkatesh, Yixin Zou, Florian Schaub.

*PoPETS: Proceedings on Privacy Enhancing Technologies*, 2020(2), 251-270. Sciendo. (Acceptance rate: 26.8%)

https://doi.org/10.2478/popets-2020-0026

Also presented at PETS 2020.

### 2019 Beyond Mandatory: Making Data Breach Notifications Useful for Consumers

Yixin Zou & Florian Schaub.

*IEEE Security & Privacy*, 17(2), 67-72. IEEE. (Invited paper)

https://doi.org/10.1109/MSEC.2019.2897834

Also presented at FTC PrivacyCon 2019.

Peer-reviewed Conference Proceedings (11)

### 2021 The Role of Computer Security Customer Support in Helping Survivors of Intimate Partner Violence

<u>Yixin Zou</u>, Allison McDonald, Julia Narakornpichit, Nicola Dell, Thomas Ristenpart, Kevin Roundy, Florian Schaub, Acar Tamersoy

USENIX Security Symposium. USENIX Association. (Acceptance rate: 18.7%)

https://www.usenix.org/system/files/sec21-zou.pdf

### "Now I'm a bit angry:" Individuals' Awareness, Perception, and Responses to Data Breaches that Affected Them

Peter Mayer\*, Yixin Zou\*, Florian Schaub, Adam J. Aviv

USENIX Security Symposium. USENIX Association. (Acceptance rate: 18.7%)

https://www.usenix.org/system/files/sec21-mayer.pdf

Also presented at FTC PrivacyCon 2021.

# 2021 Toggles, Dollar Signs, And Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts

Hana Habib\*, <u>Yixin Zou\*</u>, Yaxing Yao, Alessandro Acquisti, Lorrie Faith Cranor, Joel Reidenberg, Norman Sadeh, Florian Schaub

Conference on Human Factors in Computing Systems. ACM. (Acceptance rate: 26.3%)

https://doi.org/10.1145/3411764.3445387

Icon recommendation adopted by the CCPA amendments.

### 2020 Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices

<u>Yixin Zou</u>, Kevin Roundy, Acar Tamersoy, Saurabh Shintre, Johann Roturier, Florian Schaub

 $Conference\ on\ Human\ Factors\ in\ Computing\ Systems.\ ACM.\ (Acceptance\ rate:\ 24.3\%)$ 

https://doi.org/10.1145/3313831.3376570

CHI Best Paper Honorable Mention Award. Also presented at FTC PrivacyCon 2020.

### 2020 "It's a scavenger hunt": Usability of Websites' Opt-Out and Data Deletion Choices

Hana Habib, Sarah Pearman, Jiamin Wang, <u>Yixin Zou</u>, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, Florian Schaub

Conference on Human Factors in Computing Systems. ACM. (Acceptance rate: 24.3%) https://doi.org/10.1145/3313831.3376511

FPF 2020 Privacy Papers for Policy Makers Student Honorable Mention. Also presented at FTC PrivacyCon 2020.

# 2019 "We Can't Live Without Them!" App Developers' Adoption of Ad Networks and Their Considerations of Consumer Risks

Abraham H. Mhaidli, Yixin Zou, Florian Schaub

*Symposium on Usable Privacy and Security.* USENIX Association. (Acceptance rate: 22.9%) https://www.usenix.org/conference/soups2019/presentation/mhaidli

### 2019 An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites

Hana Habib, <u>Yixin Zou</u>, Aditi Jannu, Neha Sridhar, Chelse Swoopes, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, Florian Schaub

Symposium on Usable Privacy and Security. USENIX Association. (Acceptance rate: 22.9%) https://www.usenix.org/conference/soups2019/presentation/habib

Also presented at FTC PrivacyCon 2020.

### 2019 You 'Might' Be Affected: An Empirical Analysis of Usability Issues in Data Breach Notifications

Yixin Zou, Shawn Danino, Kaiwen Sun, Florian Schaub

Conference on Human Factors in Computing Systems. ACM. (Acceptance rate: 23.8%) https://doi.org/10.1145/3290605.3300424

Also presented at FTC PrivacyCon 2020.

### 2019 Put Your Warning Where Your Link Is: Improving and Evaluating Email Phishing Warnings

Justin Petelka, <u>Yixin Zou</u>, Florian Schaub

Conference on Human Factors in Computing Systems. ACM. (Acceptance rate: 23.8%)

https://doi.org/10.1145/3290605.3300748

CHI Best Paper Honorable Mention Award.

# 2018 "I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach

Yixin Zou, Abraham H. Mhaidli, Austin McCall, Florian Schaub

Symposium on Usable Privacy and Security. USENIX Association. (Acceptance rate: 22.8%)

https://www.usenix.org/conference/soups2018/presentation/zou

SOUPS Distinguished Paper Award.

### 2017 Users' Attitudes towards the "Going Dark" Debate

Aseel Addawood, Yixin Zou, Masooda Bashir

International Conference on Applied Human Factors and Ergonomics. Springer.

https://doi.org/10.1007/978-3-319-60585-2\_28

Workshop Proceedings and Posters (6)

### 2018 An Empirical Analysis of Online Consent and Opt-Out Experience

Hana Habib, <u>Yixin Zou</u>, Chelse Swoopes, Aditi Jannu, Lorrie Faith Cranor, Florian Schaub *Privacy Law Scholars Conference*. Washington D.C., USA. May 2018.

### 2018 An Empirical Analysis of Website Data Deletion and Opt-Out Choices

Hana Habib, <u>Yixin Zou</u>, Aditi Jannu, Chelse Swoopes, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, Florian Schaub

CHI '18 Workshop on General Data Protection Regulation: An Opportunity for the HCI Community? Montreal, Canada. Apr 2018.

### 2018 Concern But No Action: Consumers' Reactions to the Equifax Data Breach

Yixin Zou & Florian Schaub

Conference on Human Factors in Computing Systems: Late Breaking Work. Montreal, Canada. Apr 2018.

### 2018 Concern But No Action: Consumers' Reactions to the Equifax Data Breach

Yixin Zou & Florian Schaub

Midwest Security Workshop. Champaign, IL, USA. Mar 2018.

### 2017 Really Being There?: Telepresence in Virtual Reality Branded Content.

Jie Shen, M. Stenger, J. Lechowicz, Chen Chen, Rachel Yang, Aparna Sivasankaran, Yanyun Wang, Ji Zhang, <u>Yixin Zou</u>, H. Katz, Michelle R. Nelson

Annual Conference of the Association for Education in Journalism and Mass Communication. Chicago, USA. Aug 2017.

## The Impacts of Privacy Hypocrisy, Victim Characterization, Gender, and Context on Bystanders' Guilt Attribution in a Cyberbullying Suicide

Mike Zhengyu Yao, Yixin Zou, Daniel Linz, P. Jaoude

Annual Conference of International Communication Association. San Diego, USA. May 2017.

Technical Reports (3)

### 2020 CCPA Opt-Out Icon Testing - Phase 2

Lorrie Faith Cranor, Hana Habib, Yaxing Yao, <u>Yixin Zou</u>, Alessandro Acquisti, Joel R. Reidenberg, Norman Sadeh, Florian Schaub

Report submitted to the Office of the California Attorney General.

https://www.oag.ca.gov/sites/all/files/agweb/pdfs/privacy/dns-icon-study-report-052822020.pdf

### 2020 User Testing of the Proposed CCPA Do-Not-Sell Icon

Lorrie Faith Cranor, Hana Habib, <u>Yixin Zou</u>, Alessandro Acquisti, Joel R. Reidenberg, Norman Sadeh, Florian Schaub

Report submitted to the Office of the California Attorney General.

http://cups.cs.cmu.edu/pubs/CCPA2020Feb24.pdf

# Design and Evaluation of a Usable Icon and Tagline to Signal an Opt-Out of the Sale of Personal Information as Required by CCPA

Lorrie Faith Cranor, Hana Habib, <u>Yixin Zou</u>, Alessandro Acquisti, Joel R. Reidenberg, Norman Sadeh, Florian Schaub

Report submitted to the Office of the California Attorney General.

https://oag.ca.gov/sites/all/files/agweb/pdfs/privacy/ccpa-cranor.pdf

### **Invited Talks and Panels**

### "Now I'm a bit angry:" Individuals' Awareness, Perception, and Responses to Data Breaches that Affected Them

Invited speaker (w/ Peter Mayer). SECUSO Research Group, Karlsruhe Institute of Technology. Online. May 2021.

### Toggles, Dollar Signs, and Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts

Invited speaker (w/ Hana Habib). CHI '21: Conference on Human Factors in Computing Systems. Online. May 2021.

### "Now I'm a bit angry:" Individuals' Awareness, Perception, and Responses to Data Breaches that Affected Them

Invited speaker (w/ Peter Mayer). The George Washington University Usable Security and Privacy Lab. Online. Apr 2021.

### 2021 Spyware and Digital Intimate Partner Abuse

Invited speaker (w/ Allison McDonald). Sexual Assault Prevention and Awareness Center, University of Michigan. Online. Mar 2021.

### 2020 Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices

Invited speaker. PrivacyCon, Federal Trade Commission. Online. Jul 2020.

# 2019 An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites Invited speaker. SOUPS '19: Symposium on Usable Privacy and Security. Santa Clara, USA. Aug 2019.

# 2019 Lengthy, Vague, and Inactionable: Issues with Data Breach Notifications and Implications for Public Policy

Invited speaker. PrivacyCon, Federal Trade Commission. Washington D.C., USA. Jun 2019.

### 2019 An Empirical Analysis of Readability and Usability Issues in Data Breach Notifications

Invited speaker. CHI '19: Conference on Human Factors in Computing Systems. Glasgow, UK. May 2019.

### 2018 Designing Effective and Actionable Data Breach Notices: Implications for Firefox Monitor

Invited speaker (w/ Florian Schaub). Firefox Monitor Team, Mozilla. Online. Nov 2018.

# 2018 "I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach

Invited speaker. SOUPS '19: Symposium on Usable Privacy and Security. Baltimore, USA. Aug 2018.

### **Teaching Experience**

**Graduate Student Instructor** 

### Fall 2019 SI 501: Contextual Inquiry (University of Michigan)

Led two weekly discussion sections, held office hours, and graded assignments. Oversaw ten consulting projects with local clients led by master students.

4.8 (of 5.0) median rating (37 of 48 students).

### Fall 2018 SI 110: Introduction to Information (University of Michigan)

Led two weekly discussion sections, held office hours, and graded assignments. Also gave a guest lecture on net neutrality and privacy. 4.4 (of 5.0) median rating (20 of 48 students).

Mentoring of Undergraduate & Master Students

Khue Le. Undergraduate in CSE, University of Michigan. Since 2021.

Michael Ni. Undergraduate in CSE, University of Michigan. 2019-2021.

Jamie Lai. Undergraduate in Information, University of Michigan. 2019-2020.

Kaiwen Sun. Master in Information, University of Michigan. 2018.

**Shawn Danino**. Master in Information, University of Michigan. 2018.

Austin McCall. Undergraduate in Information, University of Michigan. 2018.

### **External Service**

Conference Organization

2021	Symposium or	ı Usable Privacy an	d Convitar	Doctor I	Junior Co Chair
ZUZ I	Symbosium or	i Usabie Privacy and	a security:	Poster i	unior Co-Chair

Program Committee Member / Associate Chairing

2021	European Symposium on Usable Security (EuroUSEC)

2021 ACM CSCW Posters

#### 2020, 2021 ACM CHI Late Breaking Work

2020 IEEE PerCom Workshop on Context Systems Design, Evaluation and Optimization

External Reviewer

2020, 2021	ACM Conference on Human Factors in Computing Systems (CHI)
2020, 2021	Proceedings of the ACM on Human-Computer Interaction (CSCW)
2020, 2021	ACM Conference on Designing Interactive Systems (DIS)
2020, 2021	Proceedings on Privacy Enhancing Technologies (PoPETs)

### 2020, 2021 Journal of the Association for Information Science and Technology (JAIST)

2020 International Journal of Human-Computer Interaction (IJHCI)

### **University Service**

### University of Michigan

### 2020 Privacy@Michigan Privacy Day Symposium

Contributed to organizing the Privacy@Michigan symposium in celebration of International Data Privacy Day. Organized "privacy clinics" to raise awareness of privacy issues among symposium attendees.

### 2019-2020 Mentor, Undergraduate Research Opportunity Program

Mentored undergraduate students on research projects. Help students build research skills and identify academic & career interests through close collaborations.

#### U-M School of Information

### 2021 Student coordinator, Michigan Interactive and Social Computing (MISC)

Organized speaker series at the confluence of human-computer interaction, social computing, and computer-supported cooperative work from researchers at the University of Michigan and beyond.

### 2021 Invited panelist, info sessions for PhD students

Shared advice and experience on topics such as finding summer internships, completing milestones, and navigating advisor-advisee relationships.

### Media Coverage

### 2021 Quoted by WXYZ

TV interview with WXYZ (Detroit ABC affiliate) on the dangers of data breaches and findings from our USENIX Security 2021 paper. Jul 2021.

### 2021 California Attorney General adopts Privacy Options icon into CCPA

The Privacy Options icon we designed in a CHI 2021 paper has been adopted into the official CCPA regulations through an amendment. Reported on by IAPP and JD Supra. Mar 2021.

#### 2020 Article on data breach notification research

Chicago Policy Review reported on our research in "Data Breach Notifications Are Too Complex." Sep 2020.

#### 2020 Quoted by CIO Dive

Quoted on potential changes of online safety practices during the COVID-19 pandemic in CIO Dive article "The Remote Playbook." Apr 2020.

### 2018 The Equifax data breach study and implications for credit freezes

New York Times and Detroit Free Press quoted our SOUPS 2018 paper in discussing the importance of credit freezes. The Detroit Free Press article was picked up by the Associated Press and subsequently appeared in over 80 regional and local media outlets. Sep 2018.

### Op-Eds

### 2021 An open letter to the U-M community

Co-wrote an op-ed on Michigan Daily (w/ Heeryung Choi, Jane Im, and Cindy Lin) on anti-Asian racism in the United States and in academia. Apr 2021.