

# Yixin Zou

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## Research interests

Understanding people's adoption of protective measures in reaction to security and privacy risks; Addressing the unique threat models and safety needs of at-risk populations; Developing human-centered solutions that combine technology, policy, and education to help people protect themselves from perceived risks.

**Keywords:** Human-Computer Interaction; Privacy; Security; Public Policy; Marginalized Populations

## Education

- Expected 2022    **University of Michigan** | Ann Arbor, MI, United States  
Ph.D. in Information (advisor: Florian Schaub)  
Affiliate graduate researcher at [Center for Ethics, Society, and Computing](#)  
Affiliate student and coordinator at [Michigan Interactive and Social Computing Group](#)
- 2017    **University of Illinois at Urbana-Champaign** | Champaign, IL, United States  
B.S. in Advertising, minor in Communication and Informatics  
Graduated with the Highest Honor (top 5% in College of Media)

## 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    **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*.

## Publications

*Conferences are the top-tier academic publishing venues in computer science and information science (CS/IS). Thus, the majority of my research is published in CS/IS conference proceedings.*

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*, 5(CSCW2), 471:1–471:41.  
<https://doi.org/10.1145/3479858>
- 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. (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. (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**  
Yixin Zou, Allison McDonald, Julia Narakornpichit, Nicola Dell, Thomas Ristenpart, Kevin Roundy, Florian Schaub, Acar Tamersoy  
*USENIX Security Symposium*. (Acceptance rate: 18.7%)  
<https://www.usenix.org/system/files/sec21-zou.pdf>
- 2021 **“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*. (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\*, Yixin Zou\*, Yaxing Yao, Alessandro Acquisti, Lorrie Faith Cranor, Joel Reidenberg, Norman Sadeh, Florian Schaub  
*ACM Conference on Human Factors in Computing Systems*. (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**   
Yixin Zou, Kevin Roundy, Acar Tamersoy, Saurabh Shintre, Johann Roturier, Florian Schaub  
*ACM Conference on Human Factors in Computing Systems*. (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, Yixin Zou, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, Florian Schaub  
*ACM Conference on Human Factors in Computing Systems*. (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*. (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, Yixin Zou, Aditi Jannu, Neha Sridhar, Chelse Swoopes, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, Florian Schaub  
*Symposium on Usable Privacy and Security*. (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  
*ACM Conference on Human Factors in Computing Systems*. (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, Yixin Zou, Florian Schaub  
*ACM Conference on Human Factors in Computing Systems*. (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*. (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*.  
[https://doi.org/10.1007/978-3-319-60585-2\\_28](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, Yixin Zou, 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, Yixin Zou, 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  
*ACM 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, Yixin Zou, H. Katz, Michelle R. Nelson  
*Annual Conference of the Association for Education in Journalism and Mass Communication*. Chicago, USA. Aug 2017.

- 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, Yixin Zou, 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, Yixin Zou, 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>
- 2020 **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, Yixin Zou, 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

- 2021 **“Now I’m a bit angry:” Consumer Reactions to Data Breaches that Affected Them and Opportunities for Interventions**  
Invited speaker. *Capital-Area Colloquium on Trustworthy and Usable Security/Privacy*. Washington D.C., USA. Dec 2021.
- 2021 **Consumers’ Reactions to Data Breaches, Deficiencies of Breach Notifications, and Opportunities for Public Policy**  
Invited speaker (w/ Florian Schaub). Internal seminar at *the US Federal Trade Commission*. Online. Nov 2021.
- 2021 **Why Most Consumers Do Not Take Countermeasures Against Identity Theft**  
Guest lecturer. *University of Michigan course “Problem Solving Initiative, Identity Theft: Causes and Countermeasures”*. Ann Arbor, USA. Nov 2021.
- 2021 **“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.

- 2021 **Toggles, Dollar Signs, and Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts**  
Invited speaker (w/ Hana Habib). *ACM Conference on Human Factors in Computing Systems*. Online. May 2021.
- 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, the US Federal Trade Commission*. Online. Jul 2020.
- 2019 **Information and Regulation: Net Neutrality and Privacy**  
Guest lecturer. *University of Michigan course “Introduction to Information Studies”*. Ann Arbor, USA. Oct 2019.
- 2019 **An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites**  
Invited speaker. *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, the US Federal Trade Commission*. Washington D.C., USA. Jun 2019.
- 2019 **An Empirical Analysis of Readability and Usability Issues in Data Breach Notifications**  
Invited speaker. *ACM 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 **Information Regulation: How information regulates and is regulated & Privacy**  
Guest lecturer. *University of Michigan course “Introduction to Information Studies”*. Ann Arbor, USA. Oct 2018.
- 2018 **“I’ve Got Nothing to Lose”: Consumers’ Risk Perceptions and Protective Actions after the Equifax Data Breach**  
Invited speaker. *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.  
*4.5 (of 5.0) median rating (20 of 48 students).*

### Mentoring Students

2021-Present **Tanisha Afnan.** Ph.D. in Information, University of Michigan.  
 2021-Present **Cami Goray.** Ph.D. in Information, University of Michigan.  
 2021-Present **Khue Le.** Undergraduate in Computer Science, University of Michigan.  
     2021 **Jeremy Hazan.** Master in Information Science, Cornell Tech.  
     2021 **Rui Maki.** Master in Information Science, Cornell Tech.  
     2020 **Julia Narakornpichit.** Master in Information Science, Cornell Tech.  
 2019-2020 **Michael Ni.** Undergraduate in Computer Science, University of Michigan.  
 2019-2020 **Jamie Lai.** Undergraduate in Information, University of Michigan.  
     2018 **Aditi Jannu.** Master in Information Technology, Carnegie Mellon University.  
     2018 **Chelse Swoopes.** Master in Electrical and Computer Engineering, Carnegie Mellon University.  
     2018 **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.

### Community Workshops

Fall 2021 **Workshops about Online Self-Defense for Older Adults**  
 Organized and led a multi-week workshop series in partnership with local senior centers to teach older adults common risks in technology use as well as tools, strategies, and resources they can use to protect themselves.

## External Service

### Conference Organization

2022 Symposium on Usable Privacy and Security: Publicity Junior Co-Chair  
 2021 Symposium on Usable Privacy and Security: Poster Junior 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 and ran “privacy clinics” to raise awareness of privacy issues among symposium attendees.

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

Mentored undergraduate students on research projects. Helped 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.

## Professional Experience

#### Jun – Aug 2020 **User Experience Research Intern**

*Facebook, Privacy & Data Use Team | Remote*

#### May – Aug 2019 **Research Intern**

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

#### Jan – Apr 2019 **User Experience Research Intern**

*Mozilla, Firefox Monitor Team | Remote*

## 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.