

Kaiwen Sun

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Research interests

My research centers around technology use in families. I examine children and parents' perceptions and behaviors around digital privacy and safety in the context of smart home technologies. Accordingly, I create child-centered smart home controls to make digital privacy and safety for children a default and transparent part of smart home experiences, so families are empowered to take active control in their smart homes.

Keywords: children's digital privacy and safety; smart home technologies; HCI

Education

- 2019 – Present **University of Michigan** | Ann Arbor, MI
Ph.D. in Information
Advisors: Florian Schaub, Chris Brooks
- 2016 – 2018 **University of Michigan** | Ann Arbor, MI
M.S. in Information - Human Computer Interaction
- 2011 – 2013 **University of Minnesota** | Minneapolis, MN
B.S. in Marketing

Publications

Journal Articles (2)

- 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>
- 2021 **Disparities in Students' Propensity to Consent to Learning Analytics**
Warren Li, Kaiwen Sun, Florian Schaub, Chris Brooks.
The International Journal of Artificial Intelligence in Education Special Issue, June 2021.
<https://doi.org/10.1007/s40593-021-00254-2>

Peer-reviewed Conference Proceedings (3)

- 2021 **“They See You’re a Girl if You Pick a Pink Robot with a Skirt”: A Qualitative Study of How Children Conceptualize Data Processing and Digital Privacy Risks**
Kaiwen Sun, Carlo Sugatan, Tanisha Afnan, Hailey Simon, Susan A Gelman, Jenny Radesky, Florian Schaub.
CHI’21: Conference on Human Factors in Computing Systems, ACM, May 2021.(Acceptance rate: 26.3%)
<https://doi.org/10.1145/3411764.3445333>
- 2019 **It’s My Data! Tensions Among Stakeholders of a Learning Analytics Dashboard**
Kaiwen Sun, Abraham Mhaidli, Sonakshi Watel, Chris Brooks, Florian Schaub
CHI’19: Conference on Human Factors in Computing Systems, ACM, May 2019. (Acceptance rate: 23.8%)
<https://doi.org/10.1145/3290605.3300824>
- 2019 **You ‘Might’ Be Affected: An Empirical Analysis of Usability Issues in Data Breach Notifications**
Yixin Zou, Shawn Danino, Kaiwen Sun, Florian Schaub
CHI’19: Conference on Human Factors in Computing Systems, ACM, May 2019. (Acceptance rate: 23.8%)
<https://doi.org/10.1145/3290605.3300424>

Workshop Proceedings and Posters (3)

- 2020 **It’s Everyone’s Home: Designing Smart Home Technologies with Children in Mind**
Kaiwen Sun, Chris Brooks, Florian Schaub
CHI ’20 Workshop on Networked Privacy. Apr 2020.
- 2018 **Taking Student Data for Granted? A Multi-Stakeholder Analysis of a Learning Analytics System**
Kaiwen Sun, Abraham Mhaidli, Sonakshi Watel, Chris Brooks, Florian Schaub
EDM’18 Workshop on Policy and Educational Data Mining: Norms, Risks and Safeguards. July 2018.
- 2018 **Taking Student Data for Granted? A Multi-Stakeholder Analysis of a Learning Analytics System**
Kaiwen Sun, Abraham Mhaidli, Sonakshi Watel, Chris Brooks, Florian Schaub
Poster. *SOUPS’18: Symposium on Usable Privacy and Security*. USENIX, Aug 2018.

Teaching Experience

Graduate Student Instructor

- Fall 2021 **SI 582: Introduction to Interaction Design (University of Michigan)**
Lead weekly in-class discussion sections, oversee 45 projects led by master students, hold office hours, and grade assignments.

Winter 2021 **SI 658: Information Architecture (University of Michigan)**
Facilitated weekly lecture, provided feedback to 96 individual presentations delivered by master students, and held office hours.
5.0 (of 5.0) median rating (16 of 33 students).

Employment

2017 – Present **Graduate Student Research Assistant**
University of Michigan | Ann Arbor, MI

- The impact of privacy and security topics and discussions on consumers' adoptions of smart home technologies from Reddit.
- Parents' perceptions and mitigation strategies of children's smart home safety.
- Children's perceptions of data processing and digital privacy risks.
- Measurement of students' privacy expectations and sentiments toward the use of student data in learning analytics.
- Disparities in students' propensity to consent to learning analytics.
- A multi-stakeholder perspective of privacy in learning analytics.
- Empirical analysis of usability issues in data breach notifications.

2017 **User Experience Intern**
Kohler. Co, Emerging Technology Design Studio | Kohler, WI

- Contributed iterative concept development through exploratory UX research methods, mindmap, digital illustration, presentations, for use-case scenarios in bathroom and between connected IoT products.
- Created new product interface information architecture and interactions through ideation, design research and wireframes while collaborating with two business units.

2017 **UX Consultant**
Harman | Novi, MI

- Designed a survey to uncover users' attitudes, behaviors and characteristics, analyzed survey responses to improve infotainment system user experiences.
- Conducted usability tests to provide insights for client's design update.

Honors & Awards

2018 **SOUPS Student Grant**
Symposium on Usable Privacy and Security Baltimore, MD, USA.

2016 – 2018 **Merit Scholarship**
University of Michigan School of Information.

Services

2020 – Present **Mentor, UROP (Undergraduate Research Opportunity Program)**
Served as research mentor for four undergraduate students on two research projects. Guide students to learn about research process and practice research skills.

2020 **External Reviewer**
ACM Conference on Human Factors in Computing Systems (CHI'20) Late Breaking Work