임제인 Jane Im

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University of Michigan, Ann Arbor
School of Information & Department of Computer Science and Engineering

Research Interests

I design and build social computing systems (e.g., social media, workplace software) that are grounded in affirmative consent, an idea that a person or a system must ask for, and earn, enthusiastic approval before interacting with an individual. Existing social platforms enable or exacerbate two classes of problems that negatively impact society: 1) interpersonal harm people cause one another, such as online harassment, and 2) institutional exploitation of users, such as companies' invasive data tracking of users. Both are closely related to people's consent (e.g., "Do I decide to interact with this user?", "Do I opt into tracking for targeted ads?"). Thus, consent is an important concept to define when it comes to software design. In particular, it is critical to define it in a way so that the consent boundaries of even the most marginalized groups are protected. My research provides theoretical ideas about defining affirmative consent and encoding it into social software by drawing from feminist literature. Based on the ideas, I build socio-technical systems to enable consentful interactions—especially in high-risk contexts, such as when abuse of power exists in organizations. Furthermore, because there is a huge power imbalance between companies and users, I design privacy interfaces to give users more agency. I am also interested in investigating how users perceive social media's business models—which are a basis for companies' power over users.

Education

University of Michigan, Ann Arbor, MI   Sept. 2018 - present
Ph.D. in Information & Computer Science and Engineering (enrolled in both via U-M's SIDP)
Thesis: Social Computing Systems Grounded in Consent (passed proposal)
Advisor: Kentaro Toyama
Committee: Kentaro Toyama (Chair), Emily Mower Provost, Mark S. Ackerman, Amy J. Ko

Korea University, Seoul, Republic of Korea   Mar. 2013 - Aug. 2018
B.B.A. in Business Administration
B.S. in Computer Science and Engineering

Industry Employment

Meta, Menlo Park, CA (remote)   Jun. 2021 - Aug. 2021
User Experience Research Intern for Facebook with Scarlett Sheng

Sassafras Tech Collective, Ann Arbor, MI (remote)   May 2020 - Aug. 2020
Software Development & Research Intern with Jill Dimond

Airbnb, San Francisco, CA   *Research Intern Recipient 2020; deferred due to COVID*

Awards and Recognitions

EECS Rising Stars   2023
Organized by Georgia Tech. 101 were selected to attend out of 290 applicants.

Meta PhD Research Fellowship   2023 - 2025
21 fellows were selected out of 3,200 applications. Receives a full coverage of tuition and university fees for two academic years, as well as a $42,000 stipend. (Selected on my fourth try—I started applying from my second year.)

Finalist for CSE Graduate Student Honors Competition   2022
Recognizes "top research done by PhD students" at CSE. One of the five finalists of the last round. Awarded $600.

Barbour Scholarship   2022 - 2023
Among the oldest and most prestigious awards granted by the University of Michigan, offering one year of funding to female students from Asia and the Middle East since 1917. Covers stipend of $36,084 and tuition.

Finalist for Meta PhD Research Fellowship 2022

ACM CHI Best Paper Honorable Mention Award 2021

ACM WebSci Best Paper Runner Up Award 2020

SK Telecom Big Data Analytics Competition 3rd Prize 2015

Korea University Honor Scholarships Spring & Fall 2014, Fall 2015

Publications

Conference Proceedings and Journals

[c1] Sumit Asthana, **Jane Im**, Zhe Chen, Nikola Banovic. "I know even if you don't tell me": Understanding Users' Privacy Preferences Regarding AI-based Inferences of Sensitive Information for Personalization. *ACM Conference on Human Factors in Computing Systems (CHI 2024). Forthcoming.*

[c2] Shubham Atreja, **Jane Im**, Paul Resnick, Libby Hemphill. AppealMod: Shifting Effort from Moderators to Users Making Appeals. *ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2024). Forthcoming.*

[c3] Paul Resnick, Aljohara Alfayez, **Jane Im**, Eric Gilbert. Searching For or Reviewing Evidence Improves Crowdworkers' Misinformation Judgments and Reduces Partisan Bias. *ACM Collective Intelligence (CI 2023).* [link]

[c4] **Jane Im**, Ruiyi Wang, Weikun Lyu, Nick Cook, Hana Habib, Lorrie Cranor, Nikola Banovic, Florian Schaub. Less is Not More: Improving Findability and Actionability of Privacy Controls for Online Behavioral Advertising. *ACM Conference on Human Factors in Computing Systems (CHI 2023).* **Coverage: The Wall Street Journal** [link]

[c5] Lia Bozarth, **Jane Im**, Christopher Quarles, Ceren Budak. Wisdom of Two Crowds: Current Practices of Misinformation Moderation on Reddit and How to Improve this Process—A Case Study of COVID-19. *ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2023).* [link]

[c6] **Jane Im**, Sarita Schoenebeck, Marilyn Iriarte, Gabriel Grill, Daricia Wilkinson, Amna Batool, Rahaf Alharbi, Audrey N. Funwie, Tergel Gankhuu, Eric Gilbert, Mustafa Naseem. Women's Perspectives on Harm and Justice after Online Harassment. *ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2022).* [link]

[c7] Hariharan Subramonyam, **Jane Im**, Colleen Seifert, Eytan Adar. Solving Separation-of-Concerns Problems in Collaborative Design of Human-AI Systems through Leaky Abstractions. *ACM Conference on Human Factors in Computing Systems (CHI 2022).* [link]

[c8] **Jane Im**, Jill Dimond, Melody Berton, Una Lee, Katherine Mustelier, Mark Ackerman, Eric Gilbert. Yes: Affirmative Consent as a Theoretical Framework for Understanding and Imagining Social Platforms. *ACM Conference on Human Factors in Computing Systems (CHI 2021).* Yokohama, Japan. April 2021. **Best Paper Honorable Mention Award** [link] [project website]

[c9] **Jane Im**, Eshwar Chandrasekharan, Jackson Sargent, Paige Lighthammer, Taylor Denby, Ankit Bhargava, Libby Hemphill, David Jurgens, Eric Gilbert. Still Out There: Modeling and Identifying Russian Troll Accounts on Twitter. *ACM Conference on Web Science (WebSci 2020).* Southampton, UK. **Best Paper Runner Up Award** [link]

[c10] **Jane Im**, Sonali Tandon, Eshwar Chandrasekharan, Taylor Denby, Eric Gilbert. Synthesized Social Signals: Computationally-Derived Social Signals from Account Histories. *ACM Conference on Human Factors in Computing Systems (CHI 2020).* Honolulu, HI. April 2020. [link]

[c11] **Jane Im**, Amy X. Zhang, Christopher J. Schlling, David Karger. Deliberation and Resolution on Wikipedia: A Case Study of Request for Comments. *ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2018).* New York, NY. November 2018. [link]

[c12] **Jane Im**, Paul Medlock-Walton, Mike Tissenbaum. App Inventor VR Editor for Computational Thinking. *Computational Thinking in Education Conference (CTE 2017).* Hong Kong. June 2017. [link]

Posters

[p1] Annie Chen, Sean Scarnecchia, **Jane Im**, Tanisha Afnan, Byron M. Lowens, Florian Schaub. FB Privacy Helper: A Browser Extension That Simplifies Facebook Ad Privacy Settings. *Symposium on Usable Privacy and Security*. Anaheim, CA. August 2023.

[p2] **Jane Im**, Nikola Banovic, Florian Schaub. Designing and Building Social Platforms Grounded in Consent. *Trust & Safety Research Conference*. Stanford, CA. September 2022.

Organized Panels

[o1] Douglas Zytko, **Jane Im**, Jonathan Zong. Consent: A Research and Design Lens for Human-Computer Interaction. *Computer Supported Cooperative Work and Social Computing (CSCW'22 Companion)*. Virtual. November 2022.

Select Workshop Papers

[w1] **Jane Im**, Jeeyoon Hyun, Jill Dimond, Melody Berton, Eric Gilbert. Building Social Platforms around Affirmative Consent. *Moving Forward Together: Effective Activism For Change Workshop at ACM Conference on Human Factors in Computing Systems (CHI 2020)*. Honolulu, HI. April 2020.

[w2] **Jane Im**. Non-consensual Images & Videos and Consent in Social Media. *Sensitive Research, Practice, and Design in HCI Workshop at ACM Conference on Human Factors in Computing Systems (CHI 2019)*. Glasgow, UK. May 2019.

Media Publication

[m1] Heeryung Choi, **Jane Im**, Cindy Lin, Yixin Zou. An open letter to the U-M community. *The Michigan Daily.* [link]

Select Research Experience

University of Michigan   Sept. 2018 - present
PhD Research

- Currently designing and researching social computing systems that give users more agency and protect people's consent boundaries in user-to-system and user-to-user interactions [c4].
- Using social science theories, system-building, interviews, and surveys, uncovered how lack of consent lead to a wide range of problems on social media, with users wanting fine-grained privacy and safety tools [c8, c10].

Meta (Facebook)   Jun. 2021 - Aug. 2021
User Experience Research Intern, advised by Scarlett Sheng, Rui Yang & Ayesha Zafar

- Impacted Meta's privacy strategy by doing foundational mixed-method research to understand users' perception of consent in the context of online behavioral advertising and App Tracking Transparency. Quantitatively analyzed existing survey data to understand Facebook advertisers' goals.

Sassafras Tech Collective   May 2020 - Aug. 2020
Software Development & Research Intern, advised by Jill Dimond

- Built and conducted (remote) usability testing of a moderation system. Based on the usability testing results, designed mockups and further developed the moderation system.

Haystack Group, MIT   Apr. 2017 - Apr. 2018
Undergraduate Research, advised by Amy X. Zhang and David Karger

- Investigated how various factors affect the outcome of Request for Comments (RfC), a deliberative discussion on Wikipedia, by using mixed methods: 1) interviewing Wikipedia editors and 2) creating and quantitatively analyzing an English RfC dataset [c11].

MIT App Inventor, MIT   Oct. 2016 - May 2017
Undergraduate Research, advised by Paul Medlock-Walton and Hal Abelson

- Enabled novice programmers to create modular code in the App Inventor, by developing customized blocks within the system that can execute any functions of an imported API. Implemented virtual reality (VR) blocks in the App Inventor to help novice users build VR apps [c12].

Soft Active Materials Lab, MIT   Sept. 2016 - Feb. 2017
Undergraduate Research, advised by Hyunwoo Yuk

- Developed 3D printing based soft robotic hands with stand-alone actuation and control system. Implemented the software interface for precise 3D printing for advanced soft materials.

Invited Talks and Panels

PrivacyCon 2024, Federal Trade Commission   Mar. 2024
Less is Not More: Improving Findability and Actionability of Privacy Controls for Online Behavioral Advertising

Professor Hyejin Youn's group, Kellogg School of Management at Northwestern University   Feb. 2024
Deliberation and Consent on Social Computing Systems

Cornell Information Science PhD Seminar, Cornell University   Nov. 2023
Affirmative Consent and Power Dynamics as Lenses for Designing Social Computing Systems

Radical Futures for Social Media, Yale Law School's Social Media Governance Initiative   Mar. 2023
Interface Designs and Business Models for Safer Social Platforms (Panel Presentation)

GermSyllabus talk series, Germ Network   Nov. 2022
Affirmative Consent in Platform Design

Expertise@Scale Lab, Carnegie Mellon University   Mar. 2022
Designing and Building Social Platforms Grounded in Consent

DUB Shorts Seminar, University of Washington   Aug. 2021
Yes: Affirmative Consent as a Theoretical Framework for Understanding and Imagining Social Platforms

MetaGov Seminar, Metagovernance Project   Apr. 2021
Reimagining and Building Social Platforms Grounded in Consent

HCI Seminar, Seoul National University   Jan. 2021
Reimagining and Building Social Platforms Grounded in Consent

Wikimedia Showcase, Wikimedia Foundation   Sept. 2018
Deliberation and Resolution on Wikipedia: A Case Study of Requests for Comments

IAR Seminar, University of Michigan School of Information   Sept. 2018
Deliberation and Resolution on Wikipedia: A Case Study of Requests for Comments

Select Workshop and Consortium Participation

Accelerating Independent Research on Prosocial Digital Interventions   Nov. 2023
Google Jigsaw and Prosocial Design Netowrk. Invited on behalf of Shubham Atreja, who could not make it.

Human-Computer Interaction Consortium   Jun. 2023
Selected as one of the two funded students from University of Michigan to participate.

Preparing Future Faculty Seminar   May 2023
Rackham Graduate School & Center for Research on Learning and Teaching

Social Media Governance Initiative Spring 2023 Convening: Beyond Moderation   Mar. 2023
Yale Law School's Social Media Governance Initiative. Invited for a panel talk.

Invited Guest Lectures

SE 17702 Current Topics in Privacy Seminar, Carnegie Mellon University   Mar. 2023
Less is Not More: Improving Findability and Actionability of Privacy Controls for Online Behavioral Advertising

CS 598 Antisocial Computing Guest Lecture, University of Illinois at Urbana-Champaign   Oct. 2020
Building Social Platforms Grounded in Consent

EECS 598 Human-Computer Interaction Guest Presentation, University of Michigan   Apr. 2020
Synthesized Social Signals: Computationally-Derived Social Signals from Account Histories

Press

(Quoted in) How to Make It Easier for Consumers to Control the Ads They See Online.
The Wall Street Journal. Suman Bhattacharyya. Sept. 27, 2023. [link]

2022 CSE Graduate Student Honors Competition highlights outstanding research.
University of Michigan CSE News. Nov 10, 2022. [link]

(Quoted in) Privacy by Design laws will kill your data pipelines.
Protocol. Hirsh Chitkara. May 16, 2022. [link]

Predictive Model Identifies Wikipedia Arguments that Will Never Get Resolved.
Campus Technology. Dian Schaffhauser. Nov. 27, 2018. [link]

A Third of Wikipedia Discussions Are Stuck in Forever Beefs.
Vice Motherboard. Samantha Cole. Nov. 7, 2018. [link]

Teaching Experience

SI 539: Web Design, Development, and Accessibility, University of Michigan   Winter 2020
Graduate Student Instructor

- A graduate course providing hands-on approach to learning responsive, accessible front-end programming for Web Design. Topics covered include HTML5, CSS3 (including Bootstrap framework), JavaScript, and the POUR design principles of accessible design. Led 2 discussion sections per week.

SI 339: Web Design, Development, and Accessibility, University of Michigan   Fall 2019
Graduate Student Instructor

- An undergraduate version of the course above.

Academic Mentoring

I listed the next positions of students for whom I helped faculty write a letter of recommendation (these students tend to have been interested in Masters/PhD programs; just noting this as other students have also been amazing). If you are a student who feels uncomfortable having your name included for whatever reason, please let me know. I will completely understand. Also, I have informally mentored some other students by consistently giving them high-level advice on research and career.

Paige Lighthammer, University of Michigan Nuclear Engineering (Undergraduate) [c9]   Sept. 2018 - Apr. 2019

Jackson Sargent, University of Michigan CSE (Undergraduate) [c9]   Sept. 2018 - Apr. 2019

Ankit Bhargava, University of Michigan CSE (Undergraduate) [c9]   Sept. 2018 - Apr. 2019

Taylor Denby, University of Michigan Cognitive Science (Undergraduate) [c9, c10]   Sept. 2018 - Aug. 2019
Next: University of Michigan, Master of Science in Information

Sonali Tandon, University of Michigan School of Information (Masters) [c10]   Sept. 2018 - Apr. 2019

Katherine Mustelier, University of Michigan School of Information (Undergraduate) [c8]   Mar. 2020 - May. 2020

Jake Klaristenfeld, University of Michigan CSE (Undergraduate)	Oct. 2020 - Apr. 2021
Eleanor Desmond, University of Michigan Electrical Engineering (Undergraduate)	Oct. 2020 - Jul. 2021
Jolie Kaplan, University of Michigan CSE (Undergraduate)	Oct. 2020 - Jul. 2021
Alice Li Wang, University of Michigan Stephen M. Ross School of Business & School of Information (Undergraduate)	Feb. 2021 - Apr. 2021

Ruiyi Yang, University of Michigan CSE (Undergraduate) [c4]   Oct. 2021 - Aug. 2022
Next: Carnegie Mellon University, Master of Science in Intelligent Information Systems

Weikun Lyu, University of Michigan Math & CS (Undergraduate) [c4]   Oct. 2020 - Apr. 2021; Jan. 2022 - May 2022
Awarded the Blue Ribbon Certificate for his presentation at the UROP symposium.
Next: Meta, Software engineer

Nick Cook, University of Michigan Computer Science (Undergraduate) [c4]   Jul. 2022 - Aug. 2022

Sean Scarnecchia, University of Michigan CSE (Undergraduate) [p1]   Oct. 2021 - Apr. 2022; Oct. 2022 - Jan. 2023

Annie Chen, University of Michigan CS (Undergraduate) [p1]   Oct. 2020 - Apr. 2022; Sept. 2022 - Apr. 2023

Select Academic Service

Reviewing

Special Recognitions for Outstanding Review: UIST 2022, CHI 2023 (4 times), CSCW 2023 January cycle
CHI (2021 - 2024), CSCW (2019 - 2021, 2023 - 2024), FAccT (2023), ICWSM (2022, 2024), UIST (2022), IEEE Pervasive Computing (2022), PLoS ONE (2021), IEE ICDM (2019)

Leadership and Outreach

UMSI Diversity, Equity, and Inclusion Committee, PhD student representative   Fall 2022 - Spring 2023

- PhD student representative for UMSI's DEI committee, which focuses on "school level efforts to promote an equitable and inclusive community across students, staff, and faculty."

- Contributed to shaping School of Information's DEI 2.0 Strategic Plan.

UMSI PhD Student Internship Information Session, Organizer   Fall 2021

- Organized a panel to give junior PhD students advice on finding and securing internships.

UMSI & CSE Student Initiated Doctoral Program (SIDP) Design, Assistant to faculty   Fall 2020

- Assisted faculty members in drafting a proposal for evaluating students that want to pursue a PhD in both SI and CSE. Led the effort as the only PhD student.

- I was told that I may be the first PhD student to be *formally evaluated* by SI and CSE PhD program committees and enrolled in the two programs via U-M's Student Initiated Doctoral Program (SIDP).

Michigan Interactive and Social Computing (MISC), Student Organizer   Fall 2020 - Winter 2021

- Co-organized speaker series on HCI and social computing.

Doctoral Executive Committee (DEC), Member   Fall 2019 - Winter 2020

- DEC is a group of PhD students that represents the voice of UMSI PhD students.