

Consent: A Research and Design Lens for Human-Computer Interaction

DOUGLAS ZYTKO, Oakland University, USA

JANE IM, University of Michigan, USA

JONATHAN ZONG, Massachusetts Institute of Technology, USA

Consent has become an important concept across multiple areas within HCI/CSCW, community advocacy work, and the tech industry, for understanding social computing problems and designing safe and agentic computer-mediated communication. Recent research has studied consent in various topics, such as online-to-offline interaction and harm, data privacy and security, research ethics, and human-robot interaction. The goal of this panel is to bring together researchers and practitioners to discuss how consent has been defined and studied within HCI and adjacent fields, and how cross-field discourse around consent can inform future work that pursues safe and equitable computing. We aim to introduce consent as a multifaceted research and design lens to the HCI and CSCW community and illuminate ways that consent can contribute to better understanding or re-imagination of contemporary research interests. Lastly, the panel aims to spark cross-field communication around consent to identify latent connections across research topics and foster synergistic collaborations.

CCS Concepts: • **Human-centered computing** → **Collaborative and social computing**.

Additional Key Words and Phrases: consent, computer-mediated communication

ACM Reference Format:

Douglas Zytke, Jane Im, and Jonathan Zong. 2022. Consent: A Research and Design Lens for Human-Computer Interaction. In *Computer Supported Cooperative Work and Social Computing (CSCW'22 Companion)*, November 8–22, 2022, Virtual Event, Taiwan. ACM, New York, NY, USA, 5 pages. <https://doi.org/10.1145/3500868.3561201>

1 INTRODUCTION

Consent to, and during, human-computer interaction has become a crucial focus in the literature across multiple application areas to both understand social computing phenomena and to design computer-mediated communication that is safe and protective of personal agency. As just a few examples, research has studied consent to sharing data with tech companies [5], consent to interaction with users on those platforms [6, 7], consent to sexual activity with people discovered online [25] and with sex robots [20], and consent to online research participation [24]. At the same time, consent has become a focal point in the tech industry [4] and amongst community advocacy groups [16]. For instance, The Consentful Tech project [10], led by Una Lee, represents a convergence of education and community advocacy initiatives that foreground consent in technology-use as a vital avenue towards digital justice.

This panel aims to bring together researchers and practitioners to discuss how consent has been defined and studied within HCI research and adjacent domains, and how cross-field discourse around consent can inform and strengthen future work pursuant to more equitable, safe, and just computing. Specifically, the first goal of this panel is to introduce consent as a novel research and design lens to the CSCW and broader HCI community in order to elucidate ways that HCI research topics can be reimagined or benefited by foregrounding consent. This includes reflection on how consent

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

© 2022 Copyright held by the owner/author(s).

Manuscript submitted to ACM

is collected for participation in online research, and how consent can be applied as a lens for designing and studying social computing systems. Emerging research demonstrates the benefit of consent as a research lens. Using affirmative consent as a lens for social systems design has enabled new approaches to understanding problems such as issues with AI-driven content feeds as well as designing consentful messaging systems and profile pages [7]. Studying the computer-mediation of consent to sex has shed new light on how social computing technologies predispose users to becoming perpetrators and victims of sexual violence [25]. Panelists will use their consent research in various areas as prompts to involve the audience in imagining future consent research, and consentful research methods, in HCI.

Another goal of the panel is to instigate cross-field collaboration around consent from disparate application areas, backgrounds, and international perspectives. Scholars, practitioners, and advocates have approached consent from perspectives ranging from law [19], public health [22], and even video games [13]. Yet the sheer diversity in HCI topics foregrounding consent poses a challenge to fostering a community of computer-mediated consent researchers. Useful research may go undiscovered because of variation in consent terminology, what is being consented to, and how consent is or could be provided. The need for cross-field communication can be exemplified by comparing discourse around consent in privacy and feminist literature. Privacy and legal scholars have pointed out that the field's model of notice and choice (their terminology for consent), which emphasizes individuals' control in managing how one's information is collected and used, has failed to protect consumers' consent [18]. This is due to reasons like overly long privacy notices and meaningless choices in consent popups [14, 17]. Feminist scholars' work on consent in sexual contexts offers a fresh perspective for privacy: that consent is ultimately about human beings' safety and agency [13], rather than a formality that can be satisfied through simple check boxes. The panel will provide opportunity for dialogue around consent and social computing that would otherwise be impossible through reading literature in isolation.

What is consent, and what is consented to? Definitions of consent have varied considerably amongst the general public, scholars, and law [19], which has resulted in persistent challenges in delineating consensual and non-consensual acts. Consent within HCI has witnessed similar challenges, and also uses different terms that are closely related, if not synonymous, such as approval and agreement. This assortment of consent terminology is due at least in part to the variety of activities and procedures that are consented to in social computing, and to whom or what entity consent is given. For example, consent can be given to a platform regarding the sharing of data [5], a sex robot [20], or another person in a computer-mediated interaction [6, 25]. Differences in norms and legal definitions regarding consent across regions [8] also matter here, as they impact how users perceive and use socio-technical systems. The panel discussion seeks to unpack the variety in definitions of consent to identify connections between research topics and consider what aspects of social computing are, and should be, explicitly consented to, while considering different regional perspectives.

How is consent given? How should it be given? Public health and feminist scholars have long contended with variations in consent exchange practices—or the ways in which one gives and perceives to receive consent to an interpersonal activity—that can inadvertently lead to nonconsensual activity. The literature outside of HCI has also presented and debated consent exchange best practices—how one “should” give consent—such as affirmative consent [7] and the FRIES model [15]. Yet much of this literature has historically not recognized the role that computer-mediated communication does and could play in consent exchange, and how “best practices” for consent exchange should be updated to explicitly accommodate the role of technology. Computer-mediated communication adds an additional layer of complexity because computing systems act as examples of consent practices [13] and inadvertent influences over users' perceptions of consent [25], as well as direct intermediaries between parties consenting to an activity that occurs online [24]. HCI researchers have studied ways to design better interfaces and policies for individuals' consent, such as identifying dark patterns [12] or designing features for online safety, especially for marginalized populations [21].

Simultaneously however, researchers have also critiqued the limitations of focusing on individual consent [11, 24]. Scholars taking on the standpoint of non-western data subjects have offered alternatives to western consent models, including *informed refusal* [3, 23] and *indigenous data sovereignty* [9]. The panel aims to discuss approaches to designing consent mechanisms, and understand the strengths and limits of computer-mediated consent.

How could consent be used as a research lens? Bardzell argued that feminism is both a critique and generative framework for interaction design [1]. Similarly, Im et al. argued that consent can be used both as an explanatory theory to understand and critique existing social computing phenomena and a generative theory to inform technological solutions to nonconsensual activities [7]. We see such theories in action across HCI literature. For example, Barwulor et al. critique “parasitic sex-worker-focused platforms” for using photos of sex workers in ads without their consent [2], and Hasinoff proposes designing for explicit consent to circulation of private images to better accommodate the distinction between consensual and non-consensual sexting [6]. Beyond sex contexts, Cummings et al. propose new directions for differential privacy that seek to better understand users’ comfort level regarding the sharing of information with technology companies [5]. In this panel, we aim to spark discussions around what it would mean to apply consent as a lens for research and design regarding various topics and problems in HCI.

2 PANELISTS AND MODERATORS

The organizers (authors of this proposal) have formed a group of panelists with myriad disciplinary backgrounds across academia and industry who have studied consent as it intersects with diverse HCI topics.

Douglas Zytke (moderator and panelist) is an Assistant Professor in the Department of Computer Science and Engineering at Oakland University. He is also Director of the Oakland HCI Lab, a hub for interdisciplinary research into online-to-offline harm. The lab integrates researchers in human-computer interaction, AI, psychology, and nursing to leverage emerging technologies for the prevention of harms that occur through the combination of computer-mediated and face-to-face interaction. Most relevant to this panel, Doug’s research uses consent as a lens to studying occurrence and prevention of technology-facilitated sexual violence. His work explores how consent to sex is computer-mediated, which received a Best Paper Award and Impact Recognition at CSCW 2021 [25], and how the mediation of consent exchange practices could be deliberately designed to mitigate sexual violence at scale.

Jane Im (moderator and panelist) is a PhD candidate and Barbour Scholar at the University of Michigan School of Information and Division of Computer Science and Engineering. She combines empirical methods, system-building, and theoretical approaches to tackle various integrity issues on social media, such as online harassment, surveillance, and data ownership. She focuses on the relationship between such problems and users’ consent, and researches how platforms can be designed with consent at its core. Specifically, using the lens of consent, her work develops ways to improve social systems’ privacy controls, safety and governance tools, and business models. Her research on using affirmative consent as a theoretical framework for reimagining social platforms won Best Honorable Mention at ACM CHI 2021 and has influenced the design of newly emerging social media.

Jonathan Zong (panelist) is a PhD candidate with the MIT Visualization Group at the Massachusetts Institute of Technology’s Computer Science and Artificial Intelligence Laboratory. He is also affiliated with the Citizens and Technology Lab at Cornell. He uses design as a method for understanding and re-imagining socio-technical systems. His work on designing research ethics systems examines the strengths and limitations of software interfaces for supporting the autonomy of non-consented research subjects in online field experiments. Bringing together methods from design, empirical social science, and feminist moral philosophy, his work develops ideas about consent by putting theory in conversation with practices that matter to people’s lives. His work also focuses on collective refusal as a framework for

addressing individual consent's limitations, and on designing accessible data visualization systems for and with blind / low-vision users. Jonathan is a recipient of the Paul and Daisy Soros Fellowship for New Americans.

Elissa M. Redmiles (panelist) is a faculty member and research group leader at the Max Planck Institute for Software Systems and a Visiting Scholar at the Berkman Klein Center for Internet & Society at Harvard University. She uses computational, economic, and social science methods to understand users' security, privacy, and online safety-related decision-making processes. Dr. Redmiles' work has been recognized with multiple paper awards at USENIX Security, ACM CCS and ACM CHI and has been featured in popular press publications such as the New York Times, Wall Street Journal, Scientific American, Rolling Stone, Wired, Forbes, and CNET. She has additionally served as a researcher and consultant for multiple institutions including Microsoft Research, Facebook, the Center for Democracy and Technology, and the World Bank.

Amy A. Hasinoff (panelist) is an Associate Professor of Communication at the University of Colorado Denver. Dr. Hasinoff studies gender and sexuality in the context of new media and technologies. She uses media and cultural studies methodologies to investigate how we think about new media and how those ideas affect the way we develop, use, and regulate communication technologies. Her book, *Sexting panic: Rethinking criminalization, privacy, and consent* (University of Illinois Press, 2015) examines the construction of sexting as a social problem and the responses to it in mass media, law, and education. *Sexting Panic* was the winner of the 2016 National Communication Association Diamond Anniversary Book Award. Dr. Hasinoff's published work also appears in *Communication and Critical Cultural Studies*, *New Media & Society*, *Critical Studies in Media Communication*, and *Feminist Media Studies*.

Tomomi Tanaka (panelist) is a director of international safety at Match Group, parent company to industry-leading dating apps such as Tinder, OkCupid, Match.com, and Hinge. Tomomi is responsible for ensuring effective implementation of platform safety strategies of the Match Group and promoting safe dating practices across the international brand portfolio. Prior to joining Match Group, Tomomi was a senior economist at the World Bank and conducted research on psychological impacts of violence, especially among Boko Haram victims. Tomomi was also an assistant professor at Arizona State University. She published academic papers in top economics journals such as the *American Economic Review*, *Games and Economic Behavior*, the *Economic Journal*, and *Experimental Economics*, and received the Enjoji Jiro Memorial Prize for the most promising young economists from Nikkei.

3 PANEL FORMAT AND AUDIENCE ENGAGEMENT

This virtual panel is planned for a 60-75 minute time slot, and is structured around a series of discussion "provocations." Each panelist will introduce a 3-minute topic informed by their research intersecting with consent, followed by discussion amongst panelists and the audience around the provocation. The goal is not to report research findings, but to introduce a topic regarding consent that the panelist believes warrants discussion and debate amongst the HCI community. We will prepare discussion prompts for the panel and audience to surface a wide range of perspectives (including non-western approaches to consent).

Plans for audience participation will be responsive to technical capabilities of the virtual conference. While voice/video communication would be optimal, we are confident we can support text-only audience participation based on positive reception to a CHI 2022 virtual panel [26] with a similar panel structure as the one proposed here, and with text-based messages through Hub (the conference platform) and Discord being the only modes of communication between panelists and the audience. The moderators (Zytka and Im) will continuously monitor incoming comments and questions from the audience through all available text channels and broach them to the other panelists. If voice/video chat is available, audience members will be encouraged to "raise their hand" or post a text message, which will enable the moderators to

call on audience speakers in order. To ensure the panel is accessible, we will turn on auto-captions, ensure only one person is talking at once, repeat text-based questions out loud, and share a transcript after the panel.

REFERENCES

- [1] Shaowen Bardzell. 2010. Feminist HCI: taking stock and outlining an agenda for design. In *Proceedings of the SIGCHI conference on human factors in computing systems*. 1301–1310.
- [2] Catherine Barwulor, Allison McDonald, Eszter Hargittai, and Elissa M Redmiles. 2021. "Disadvantaged in the American-dominated internet": Sex, Work, and Technology. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–16.
- [3] Ruha Benjamin. 2016. Informed Refusal: Toward a Justice-based Bioethics. *Science, Technology, & Human Values* (June 2016).
- [4] Tracey Breedon. 2022. *How Consent Creates Healthy Communication & Relationships*. <https://mtch.com/single-trust-and-safety/45>
- [5] Rachel Cummings, Gabriel Kaptchuk, and Elissa M. Redmiles. 2021. "I Need a Better Description": An Investigation Into User Expectations For Differential Privacy. In *Proceedings of the 2021 ACM SIGSAC Conference on Computer and Communications Security* (Virtual Event, Republic of Korea) (CCS '21). Association for Computing Machinery, New York, NY, USA, 3037–3052. <https://doi.org/10.1145/3460120.3485252>
- [6] Amy Adele Hasinoff. 2015. *Sexting panic: Rethinking criminalization, privacy, and consent*. University of Illinois Press.
- [7] Jane Im, Jill Dimond, Melody Berton, Una Lee, Katherine Mustelier, Mark S. Ackerman, and Eric Gilbert. 2021. Yes: Affirmative Consent as a Theoretical Framework for Understanding and Imagining Social Platforms. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (Yokohama, Japan) (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 403, 18 pages.
- [8] Haksoo Ko, John Leitner, Eunsoo Kim, and Jonggu Jeong. 2017. Structure and enforcement of data privacy law in South Korea. *International Data Privacy Law* (2017).
- [9] Tahu Kukutai and John Taylor (Eds.). 2016. *Indigenous Data Sovereignty: Toward an agenda*. Vol. 38. ANU Press.
- [10] Una Lee and Dann Toliver. 2017. Building Consentful Tech. (2017). <http://www.consentfultech.io/wp-content/uploads/2019/10/Building-Consentful-Tech.pdf>
- [11] Juniper Lovato, Antoine Allard, Randall Harp, and Laurent Hébert-Dufresne. 2020. Limits of individual consent and models of distributed consent in online social networks. *arXiv preprint arXiv:2006.16140* (2020).
- [12] Arunesh Mathur, Mihir Kshirsagar, and Jonathan Mayer. 2021. What makes a dark pattern... dark? Design attributes, normative considerations, and measurement methods. In *Proceedings of the 2021 CHI conference on human factors in computing systems*. 1–18.
- [13] Josef Nguyen and Bonnie Ruberg. 2020. Challenges of designing consent: Consent mechanics in video games as models for interactive user agency. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–13.
- [14] Jonathan A Obar and Anne Oeldorf-Hirsch. 2020. The biggest lie on the internet: Ignoring the privacy policies and terms of service policies of social networking services. *Information, Communication & Society* 23, 1 (2020), 128–147.
- [15] Planned Parenthood. 2016. Understanding Consent is as Easy as FRIES. *Planned Parenthood Tumblr*. <http://plannedparenthood.tumblr.com/post/148506806862/understanding-consent-is-as-easy-as-fries-consent> (2016).
- [16] Tawana Petty, Mariella Saba, Tamika Lewis, Seeta Peña Gangadharan, and Virginia Eubanks. 2018. Our data bodies: Reclaiming our data. *June* 15 (2018), 37.
- [17] Florian Schaub, Rebecca Balebako, and Lorrie Faith Cranor. 2017. Designing effective privacy notices and controls. *IEEE Internet Computing* 21, 3 (2017), 70–77.
- [18] Daniel J Solove. 2013. Privacy self-management and the consent dilemma. *Harvard Law Review* 126 (2013), 1880.
- [19] Roseanna Sommers. 2019. Commonsense consent. *Yale LJ* 129 (2019), 2232.
- [20] Yolande Strengers, Jathan Sadowski, Zhuying Li, Anna Shimshak, and Florian 'Floyd' Mueller. 2021. What Can HCI Learn from Sexual Consent? A Feminist Process of Embodied Consent for Interactions with Emerging Technologies. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (Yokohama, Japan) (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 405, 13 pages.
- [21] Sharifa Sultana, Mitrasree Deb, Ananya Bhattacharjee, Shaïd Hasan, SM Raihanul Alam, Trishna Chakraborty, Prianka Roy, Samira Fairuz Ahmed, Aparna Moitra, M Ashrafal Amin, et al. 2021. 'Unmochon': A Tool to Combat Online Sexual Harassment over Facebook Messenger. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–18.
- [22] Chris Verity, Donal Manning, and Angus Nicoll. 2002. Consent, confidentiality, and the threat to public health surveillance: Commentary: Don't waive consent lightly—involve the public. *BMJ* 324, 7347 (2002), 1210–1213.
- [23] Jonathan Zong. 2020. From Individual Consent to Collective Refusal: Changing Attitudes toward (Mis)Use of Personal Data. *XRDS* 27, 2 (dec 2020), 26–29. <https://doi.org/10.1145/3433140>
- [24] Jonathan Zong and J Nathan Matias. 2022. Bartleby: Procedural and Substantive Ethics in the Design of Research Ethics Systems. *Social Media+ Society* 8, 1 (2022), 20563051221077021.
- [25] Douglas Zytiko, Nicholas Furlo, Bailey Carlin, and Matthew Archer. 2021. Computer-Mediated Consent to Sex: The Context of Tinder. *Proc. ACM Hum.-Comput. Interact.* 5, CSCW1, Article 189 (apr 2021), 26 pages. <https://doi.org/10.1145/3449288>
- [26] Douglas Zytiko, Pamela J. Wisniewski, Shion Guha, Eric PS Baumer, and Min Kyung Lee. 2022. Participatory Design of AI Systems: Opportunities and Challenges Across Diverse Users, Relationships, and Application Domains. In *CHI Conference on Human Factors in Computing Systems Extended Abstracts*. 1–4.