



University of Michigan School of Information (UMSI) faculty and students will present 25 papers at the [2022 ACM Conference](#) on Computer-Supported Cooperative Work (CSCW) Nov. 8-22.

These papers help illustrate the breadth and depth of topics information scientists are currently studying, including: women's perspectives on harm and justice associated with online harassment; parents' information needs while navigating change; social media's role during major life events; QAnon disinformation infrastructure; and caste dynamics among Indian politicians on Twitter.

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### **UMSI research from 2022 CSCW proceedings**

University of Michigan School of Information (UMSI) faculty and students are presenting 25 papers at the 2022 ACM Conference on Computer-Supported Cooperative Work (CSCW) Nov. 8-22.

CSCW is the leading conference for presenting research in the design and use of technologies that affect groups, organizations and communities. The conference brings together top researchers and practitioners from academia and industry who are interested in both the technical and social aspects of collaboration.

This year's conference will be held virtually.

See below for a complete list of UMSI research. School of Information faculty, students and researchers are listed in bold, and the names of other University of Michigan scholars are italicized. Times listed are in Eastern Standard Time.

### **Best Paper Awards**

[Auggie: Encouraging Effortful Communication through Handcrafted Digital Experiences](#)

**Lei Zhang**, Tianying Chen, Olivia Seow, Tim Chong, Sven Kratz, Yu Jiang Tham, Andrés Monroy-Hernández, Rajan Vaish, Fannie Liu

Friday, Nov. 11, 9-9:10 a.m.

Wednesday, Nov. 16, 9-9:10 p.m.

Digital communication is often brisk and automated. From auto-completed messages to “likes,” research has shown that such lightweight interactions can affect perceptions of authenticity and closeness. On the other hand, effort in relationships can forge emotional bonds by conveying a sense of caring and is essential in building and maintaining relationships. To explore effortful communication, we designed and evaluated Auggie, an iOS app that encourages partners to create digitally handcrafted Augmented Reality (AR) experiences for each other. Auggie is centered around crafting a 3D character with photos, animated movements, drawings, and audio for someone else. We conducted a two-week-long field study with 30 participants (15 pairs), who used Auggie with their partners remotely. Our qualitative findings show that Auggie participants engaged in meaningful effort through the handcrafting process, and felt closer to their partners, although the tool may not be appropriate in all situations. We discuss design implications and future directions for systems that encourage effortful communication.

### **Honorable Mention Awards**

[Privacy Research with Marginalized Groups: What We Know, What's Needed, and What's Next](#)

**Shruti Sannon**, Andrea Forte

Wednesday, Nov. 9, 3:50-4 a.m.

Friday, Nov. 18, 3:50-4 p.m.

People who are marginalized experience disproportionate harms when their privacy is violated. Meeting their needs is vital for developing equitable and privacy-protective technologies. In response, research at the intersection of privacy and marginalization has acquired newfound urgency in the HCI and social computing community. In this literature review, we set out to understand how researchers have investigated this area of study. What topics have been examined, and how? What are the key findings and recommendations? And, crucially, where do we go from here? Based on a review of papers on privacy and marginalization published in the past 10 years across HCI, Communication, and privacy-focused venues, we make three main contributions: (1) we identify key themes in existing work and introduce the Privacy Responses and Costs framework to describe the tensions around protecting privacy in marginalized contexts, (2) we characterize trends in research practices in this area, including the under-reporting of important methodological choices, and (3) we identify understudied areas for

future work, and provide suggestions for conducting research on privacy and marginalization as a step towards establishing shared best practices for this growing area of research.

## **Diversity Awards**

### [Counting to be Counted: Anganwadi Workers and Digital Infrastructures of Ambivalent Care](#)

Azhagu Meena SP, Palashi V, [Joyojeet Pal](#)

Thursday, Nov. 10, 5-5:10 p.m.

Wednesday, Nov. 16, 5-5:10 a.m.

Data collection on the population is a key mode of public health management in the Global South where this information is seen as a means to improve health metrics through welfare programs. Anganwadi workers, widely seen as daycare providers and community health workers, are increasingly being asked to exclusively serve as collectors of data on the population. In this study, we examine the changes in the infrastructure of a welfare program in India with the introduction of an ICT-based Real-Time Monitoring System. We ask the question “cui bono?” to this system by drawing attention to the precarious positionality of Anganwadi workers whose care-work is subjected to standardization through this app for “efficient” monitoring by the Indian state but remains contingent on their relationship with the local community and ability to mobilize resources on the ground. Using auto-ethnographic and interview methods, we find that Anganwadi workers are caught between conflicting demands of state bureaucracy that anonymizes caring for its subjects in the form of statistics and the situated nature of care work on the ground producing forms of ambivalent care. An overlaying of a technological reimagining of service delivery on an existing unequal structure of class and labor in India works to the detriment of the Anganwadi workers, and in turn, to the very quality of data the projects seek to improve. We conclude that the real-time monitoring apps end up serving the state's need for performing care through the myth of data-driven efficiency at the expense of the professional and personal well-being of the workers, and arguably the communities they serve.

### [Toward a More Inclusive Gig Economy: Risks and Opportunities for Workers with Disabilities](#)

[Shruti Sannon](#), Dan Cosley

Wednesday, Nov. 9, 1-1:10 p.m.

Friday, Nov. 18, 1-1:10 a.m.

Little is known about whether and how workers with disabilities participate in the many on-demand labor platforms that make up the growing gig economy, yet, this understanding is a vital step towards developing a more inclusive gig economy. Through interviews with 24 workers and observational fieldwork, we present a rich, in-depth picture of the opportunities and challenges presented by four main types of gig work (ridesharing, delivery, crowdwork, and freelancing) for workers with a wide range of disabilities. We identify a key tension: gig work can be a vital source of needed income for workers who have been excluded from traditional workplaces, but at the same time, the structure of gig platforms present workers with a host of new disability-related challenges, including around algorithmic control and performance

evaluation. We discuss how this tension plays out in terms of how workers engage in gig work and protect themselves from risk. We also call attention to how many workers can face complicated, intersectional challenges based on multiple, marginalized identities in addition to disability, such as race, sexual orientation, and socioeconomic status. Our work contributes to research on the gig economy by centering the perspectives of workers who are marginalized based on disability and other identities. We show how workers face several penalties based on disability, including shouldering extensive invisible labor to mitigate the challenges they face. To address these issues, we represent workers' voices in the design suggestions we put forth around how labor platforms could be more inclusive and equitable for workers with a range of disabilities.

## Papers

### [The Algorithmic Crystal: Conceptualizing the Self through Algorithmic Personalization on TikTok](#)

Angela Y Lee, Hannah Mieczkowski, [Nicole B. Ellison](#), Jeff Hancock

Wednesday, Nov. 9, 6-6:10 a.m.

Friday, Nov. 18, 6-6:10 p.m.

This research examines how TikTok users conceptualize and engage with personalized algorithms on the TikTok platform. Using qualitative methods, we analyzed 24 interviews with TikTok users to explore how algorithmic personalization processes inform people's understanding of their identities as well as shape their orientation to others. Building on insights from our qualitative data and previous scholarship on algorithms and identity, we propose a novel conceptual model to understand how people think about and interact with personalized algorithmic systems. Drawing on the metaphor of crystals and their properties, the {algorithmic crystal framework} is an analytic frame that captures user understandings of how personalized algorithms (1) interact with user identity by {reflecting} user self-concepts that are both {multifaceted} and {dynamic} and (2) shape perspectives on others encountered through the algorithm, by orienting users to recognize parts of themselves {refracted} in other users and to experience ephemeral, {diffracted} connections with groups of similar others. We describe how the algorithmic crystal framework can extend theory and inform new lines of research around the implications of algorithms in self-concept development and social life.

### [An Approximation of Freedom: On-demand Therapy and the Feminization of Labor](#)

[Linda Huber](#), [Casey Pierce](#), [Silvia Lindtner](#)

Thursday, Nov. 10, 5:50-6 p.m.

Wednesday, Nov. 16, 5:50-6 a.m.

Platform labor and gig work have become key sites for understanding a nascent "future of work" hallmarked by informalization and digitization. A growing body of research emphasizes how experiences of platform work are mediated not only by algorithms and user interfaces, but also by gender, race, local cultures as well as labor hierarchies. Drawing from ongoing ethnographic research on the digital transformation of healthcare, we show how therapists' experiences of platform labor are centrally shaped by the historical and ongoing feminization of mental health

work. Platforms reinscribe feminized labor conditions that are pervasive in the healthcare industry, and yet platform labor appears as 'useful' to some therapists as they navigate a set of precarious career choices fundamentally structured by feminization. We use the analytic of the stopgap to describe platforms' two-fold reproduction of the status quo: first by offering an approximation of freedom to individual workers, helping to forestall a crisis of unsustainable work conditions; and second by reinscribing the same logics of exploitation in order to make labor scalable. This stopgap analytic reorients the focus away from the impact of the platforms technologies as such, towards the conditions that make stopgap solutions necessary for survival. It also points towards the importance of intervening in the conditions of exclusion and exploitation that help to create a market for platform stopgaps.

### [Attitudes and Folk Theories of Data Subjects on Transparency and Accuracy in Emotion Recognition](#)

[Gabriel Grill](#), [Nazanin Andalibi](#)

Wednesday, Nov. 9, 6:40-6:50 a.m.

Friday, Nov. 18, 6:40-6:50 p.m.

The growth of technologies promising to infer emotions raises political and ethical concerns, including concerns regarding their accuracy and transparency. A marginalized perspective in these conversations is that of data subjects potentially affected by emotion recognition. Taking social media as one emotion recognition deployment context, we conducted interviews with data subjects (i.e., social media users) to investigate their notions about accuracy and transparency in emotion recognition and interrogate stated attitudes towards these notions and related folk theories. We find that data subjects see accurate inferences as uncomfortable and as threatening their agency, pointing to privacy and ambiguity as desired design principles for social media platforms. While some participants argued that contemporary emotion recognition must be accurate, others raised concerns about possibilities for contesting the technology and called for better transparency. Furthermore, some challenged the technology altogether, highlighting that emotions are complex, relational, performative, and situated. In interpreting our findings, we identify new folk theories about accuracy and meaningful transparency in emotion recognition. Overall, our analysis shows an unsatisfactory status quo for data subjects that is shaped by power imbalances and a lack of reflexivity and democratic deliberation within platform governance.

### [Assessing the Fairness of AI Systems: AI Practitioners' Processes, Challenges, and Needs for Support](#)

Michael Madaio, Lisa Egede, **Hariharan Subramonyam**, Jennifer Wortman Vaughan, Hanna Wallach

Wednesday, Nov. 9, midnight - 12:10 a.m.

Friday, Nov. 18, noon - 12:10 p.m.

Various tools and practices have been developed to support practitioners in identifying, assessing, and mitigating fairness-related harms caused by AI systems. However, prior research has highlighted gaps between the intended design of these tools and practices and

their use within particular contexts, including gaps caused by the role that organizational factors play in shaping fairness work. In this paper, we investigate these gaps for one such practice: disaggregated evaluations of AI systems, intended to uncover performance disparities between demographic groups. By conducting semi-structured interviews and structured workshops with thirty-three AI practitioners from ten teams at three technology companies, we identify practitioners' processes, challenges, and needs for support when designing disaggregated evaluations. We find that practitioners face challenges when choosing performance metrics, identifying the most relevant direct stakeholders and demographic groups on which to focus, and collecting datasets with which to conduct disaggregated evaluations. More generally, we identify impacts on fairness work stemming from a lack of engagement with direct stakeholders, business imperatives that prioritize customers over marginalized groups, and the drive to deploy AI systems at scale.

### [Caste Capital On Twitter: A Formal Network Analysis Of Caste Relations Among Indian Politicians](#)

Palashi Vaghela, Ramaravind Kommiya Mothilal, [Daniel Romero](#), [Joyojeet Pal](#)

Friday, Nov. 11, 10:30-10:40 a.m.

Wednesday, Nov. 16, 10:30-10:40 p.m.

Twitter is increasingly important for political outreach and networking around the world. While electoral politics and social relations in India are heavily organized by caste, a broader rhetoric of castelessness among upper-caste politicians has led to the eschewing of caste publicly to appear secular. This has rendered caste dynamics more implicit than explicit. Social media, often cited as a tool for inclusion, offers a unique window into the networks of covert exclusion. Our study analyzes three structural properties of the Twitter network of Members of Parliament in India - influence, bridging capital, and mutual connectivity, to understand how caste manifests as social capital in the information economy. Our results show that those higher in the caste hierarchy are structurally poised for higher social capital through higher influence, incoming bridging capital, and higher propensity for mutual connections with other MPs in the network. Our study offers a methodological window into these invisible relations to show how structural advantages of Brahmanical supremacy are being co-produced and stabilized on social media at the highest level of politics.

### [Characteristics and Challenges of Clinical Documentation in Self-Organized Fast-Paced Medical Work](#)

Zhan Zhang, Karen Joy, Richard Harris, [Sun Young Park](#)

Thursday, Nov. 10, 4:40-4:50 p.m.

Wednesday, Nov. 16, 4:40-4:50 a.m.

Clinical documentation is a time-consuming and challenging task, especially for time-critical medical settings. Even with a dedicated scribe person, timely and accurate documentation under time constraints is never easy. In this work, we present a unique type of fast-paced medical team---emergency medical services (EMS)---which has no designated role for documentation while constantly working outside in the field to provide urgent patient care.

Through interviews with 13 EMS practitioners, we reveal several interesting and prominent characteristics of EMS documentation practice as well as their associated challenges: EMS practitioners self-organize and collaborate on documentation while in the meantime being both physically and cognitively preoccupied with high-acuity patients, having limited capability to use handheld documentation systems in real-time, and being overwhelmed by strict documentation requirements and regulations. Lastly, we use our findings to discuss both technical and non-technical implications to support timely and collaborative documentation in dynamic medical contexts while accounting for care providers' physical and cognitive constraints in using computing devices.

[The Chinese Diaspora and The Attempted WeChat Ban: Platform Precarity, Anticipated Impacts, and Infrastructural Migration](#)

[Ben Zefeng Zhang](#), [Oliver L. Haimson](#), [Michaelanne Thomas](#)

Wednesday, Nov. 9, 3:30-3:40 p.m.

Friday, Nov. 18, 3:30-3:40 p.m.

In August 2020, the U.S. presidential administration issued an executive order to ban the Chinese-based social platform WeChat, alleging that WeChat posed a national security risk. However, WeChat is a vital application for Chinese diasporic communities in the U.S. The ban's status and outcome were uncertain for several months before it was temporarily halted and later revoked in 2021. Through interviews with 15 WeChat users and online participant observation, this study examines the anticipated impacts of the potential WeChat ban and participants' subsequent reactions. We find that in response to the potential ban, participants described negative consequences, including adverse network and economic effects and disruption of community-building efforts. We also find that many participants considered WeChat to be critical infrastructure in the U.S., as it has become an indispensable part of their daily lives. To frame participants' experiences, we introduce the concept of infrastructural migration – the process of users relocating to another digital media service that embodies the properties and functions of infrastructure or moving to an assemblage of different applications that meet their infrastructural needs separately. We then discuss implications for designing for infrastructural migration and future considerations for HCI research with diasporic communities.

[Disinformation as Infrastructure: Making and maintaining the QAnon conspiracy on Italian digital media](#)

[Irene V. Pasquetto](#), Alberto Federico Olivieri, Luca Tacchetti, Gianni Riotta, Alessandra Spada

Thursday, Nov. 10, 12:30-12:40 a.m.

Wednesday, Nov. 16, 12:30-12:40 p.m.

Building from sociotechnical studies of disinformation and of information infrastructures, we examine how – over a period of eleven months – Italian QAnon supporters designed and maintained a distributed, multi-layered “infrastructure of disinformation” that spans multiple social media platforms, messaging apps, online forums, alternative media channels, as well as websites, databases, and content aggregators. Examining disinformation from an infrastructural lens reveals how QAnon disinformation operations extend well-beyond the use of social media

and the construction of false narratives. While QAnon conspiracy theories continue to evolve and adapt, the overarching (dis)information infrastructure through which "epistemic evidence" is constructed and constantly updated is rather stable and has increased in size and complexity over time. Most importantly, we also found that deplatforming is a time-sensitive effort. The longer platforms wait to intervene, the harder it is to eradicate infrastructures as they develop new layers, get distributed across the Internet, and can rely on a critical mass of loyal followers. More research is needed to examine whether the key characteristics of the disinformation infrastructure that we identified extend to other disinformation infrastructures, which might include infrastructures put together by climate change denialists, vaccine skeptics, or voter fraud advocates.

[Emotional Labor in Everyday Resilience: Class-Based Experiences of Navigating Unemployment Amid the COVID-19 Pandemic in the U.S.](#)

[Alex Jiahong Lu](#), [Anna Gilhool](#), [Joey Chiao-Yin Hsiao](#), [Tawanna R Dillahunt](#)

Wednesday, Nov. 9, 6:10-6:20 p.m.

Friday, Nov. 18, 6:10-6:20 a.m.

During the coronavirus disease 2019 (COVID-19) global health crisis, institutions, policymakers, and academics alike have called for practicing resilience to overcome its ongoing disruptions. This paper contributes a comparative study of the job search experiences of working-class and upper-middle-class job seekers, particularly in relation to their resilience practices during the pandemic. We draw from interviews with 12 working-class and 11 upper-middle-class job seekers in the U.S. We unpack challenges resulting from both the pandemic and unemployment and job seekers' novel practices of navigating these challenges in their everyday disrupted life, highlighting the similarities and differences across classes. Job seekers' ongoing negotiation with their resources, situations, and surroundings gives practical meanings to building everyday resilience, which we conceptualize as an ongoing process of becoming resilient. We found that job seekers across classes experienced similar challenges. However, working-class job seekers took on additional emotional labor in their everyday resilience due to their limited experience in the digital job search space, competition with higher-degree holding job seekers applying for the same jobs, limited social support networks, and at times, isolation. By foregrounding the uneven distribution of emotional labor in realizing the promise of resilience along class lines, this work cautions against the romanticization of resilience and calls for a more critical understanding of resilience in CSCW.

[Gig Platforms as Faux Infrastructure: A Case Study of Women Beauty Workers in India](#)

[Ira Anjali Anwar](#), [Michaelanne Thomas](#), [Kentaro Toyama](#), [Julie Hui](#)

Wednesday, Nov. 9, 1:40-1:50 p.m.

Friday, Nov. 18, 1:40-1:50 a.m.

The limited information (data voids) on political topics relevant to underrepresented communities has facilitated the spread of disinformation. Independent journalists who combat disinformation in underrepresented communities have reported feeling overwhelmed because they lack the tools necessary to make sense of the information they monitor and address the data voids. In



this paper, we present a system to identify and address political data voids within underrepresented communities. Armed with an interview study, indicating that the independent news media has the potential to address them, we designed an intelligent collaborative system, called Datavoidant. Datavoidant uses state-of-the-art machine learning models and introduces a novel design space to provide independent journalists with a collective understanding of data voids to facilitate generating content to cover the voids. We performed a user interface evaluation with independent news media journalists (N=22). These journalists reported that Datavoidant's features allowed them to more rapidly while easily having a sense of what was taking place in the information ecosystem to address the data voids. They also reported feeling more confident about the content they created and the unique perspectives they had proposed to cover the voids. We conclude by discussing how Datavoidant enables a new design space wherein individuals can collaborate to make sense of their information ecosystem and actively devise strategies to prevent disinformation.

#### [Moderation as Empowerment: Creating and Managing Women-Only Digital Safe Spaces](#)

Tawfiq Ammari, Momina Nofal, [Mustafa Naseem](#), Maryam Mustafa

Thursday, Nov. 10, 3:50-4 a.m.

Wednesday, Nov. 16, 3:50-4 p.m.

This paper explores the creation, management and moderation of women-only online groups as digital safe spaces. We interview eleven founders and moderators of six distinct, closed, women-only Facebook groups that predominantly cater to women in and from the Global South. The study provides insights into the motivations and mechanisms for creating and moderating these safe spaces, the affordances of social networking sites that enable or hinder the creation and moderation of such spaces and finally, and the deep impact moderating such spaces has on the women who manage them. Based on these findings we discuss suggestions for specific technological affordances to enable and support digital safe spaces for marginalized and vulnerable communities.

#### [The Moral Orders of Matchmaking Work: Matrimonial services and the Technological Imperative in urban India](#)

Simiran Lalvani, [Joyjeet Pal](#)

Friday, Nov. 11, 2:10-2:20 a.m.

Thursday, Nov. 17, 2:10-2:20 p.m.

The digitisation of matrimonial matchmaking has implications for work but also subjective notions of family, femininity, parentchild relations, community boundaries which this work relies on. This paper is based on qualitative, ethnographic fieldwork with matchmakers working with middle-class, upper-caste Hindu and Parsi communities in metropolitan India and offering services alongside, or as an alternative to the now widely used online matrimonial services. Through our fieldwork, we found all matchmakers engaged with digital technologies' involvement in the ongoing churn around modern choice. Matchmakers engaged with this wider social discourse through ideas of trust, autonomy and genealogy and in doing so they responded to and re/produced varying imaginations of the future of families, community,

individuals. Our findings contribute to an understanding of the digitisation of a service as well as make a case for widening the conceptual scope of the future of work debate currently dominated by economic conceptions of work. By paying attention to the links between the productive and reproductive spheres of life, we follow labor and capital into the families and communities they reside in order to see the variety of moral projects capital can be invested in.

### [Separate Online Networks During Life Transitions: Support, Identity, and Challenges in Social Media and Online Communities](#)

[Ben Zefeng Zhang](#), [Tianxiao Liu](#), [Shanley Corvite](#), [Nazanin Andalibi](#), [Oliver L. Haimson](#)

Tuesday, Nov. 8, 9:40-9:50 p.m.

Friday, Nov. 18, 9:40-9:50 a.m.

Some life transitions can be difficult to discuss on social media, especially with networks of known ties, due to challenges such as stigmatization. Separate online networks can provide alternative spaces to discuss life transitions. To understand why and how people turn to separate networks, we interviewed 28 participants who had recently experienced life transitions. While prior research tends to focus on one life transition in isolation, this work examines social media sharing behaviors across a wide variety of life transitions. We describe how people often turn to separate networks during life transitions due to challenges faced in networks of known ties, yet encounter new challenges such as difficulty locating these networks. We describe support from waiting contributors and virtual friends. Finally, we provide insight into how online separate networks can be better designed through enhancing search functionality, promoting contribution, and providing context-sensitive templates for sharing in online spaces.

### [Social Media's Role During Identity Changes Related to Major Life Events](#)

[Shanley Corvite](#), [Ben Zefeng Zhang](#), [Oliver L. Haimson](#)

Friday, Nov. 11, 10-10:10 a.m.

Wednesday, Nov. 16, 10-10:10 p.m.

Major life events can cause great upheaval in one's life. Many people perceive their identities to change due to major life events. During identity shifts, impression management and self-presentation, online communities, and social media affordances can allow individuals to better facilitate their experiences. To examine how people perceive their identity to change during major events and how they use social media in the process, we interviewed 28 participants who recently experienced major life events. We found that many people perceived their identity to change through various avenues that they felt were important to their identity: mental processes, identity roles, and identity fulfillment. However, some people perceive their identity to be maintained rather than changed. During identity changes or maintenance, participants utilized impression management and self-presentation to curate their online presence. Participants also used online communities to build relationships with similar others or virtual friends and enable more connections via what we call the domino effect. Social media sites also provided the affordances of editability, visibility control, and spreadability, which can help ease life transition and identity change processes.

## [Understanding Emerging Obfuscation Technologies in Visual Description Services for Blind and Low Vision People](#)

[Rahaf Alharbi](#), [Robin N. Brewer](#), [Sarita Schoenebeck](#)

Thursday, Nov. 10, 11-11:10 a.m.

Tuesday, Nov. 15, 11-11:10 p.m.

Blind and low vision people use visual description services (VDS) to gain visual interpretation and build access in a world that privileges sight. Despite its many benefits, VDS has many harmful privacy and security implications. As a result, researchers are suggesting, exploring, and building obfuscation systems that detect and obscure private or sensitive materials. However, as obfuscation depends largely on sight to interpret outcomes, it is unknown whether Blind and low vision people would find such approaches useful. Our work aims to center the perspectives and opinions of Blind and low vision people on the potential of obfuscation to address privacy concerns in VDS. By reporting on interviews with 20 Blind and low vision people who use VDS, our findings reveal that popular research trends in obfuscation fail to capture the needs of Blind and low vision people. While obfuscation might be helpful in gaining more control, tensions around obfuscation misrecognition and confirmation are prominent. We turn to the framework of interdependence to unpack and understand obfuscation in VDS, enabling us to complicate privacy concerns, uncover the labor of Blind and low vision people, and emphasize the importance of safeguards. We provide design directions to move the trajectory of obfuscation research forward.

## [Understanding Machine Learning Practitioners' Data Documentation Perceptions, Needs, Challenges, and Desiderata](#)

Amy K. Heger, [Liz B. Marquis](#), Mihaela Vorvoreanu, Hanna Wallach, Jennifer Wortman Vaughan

Wednesday, Nov. 9, 12:50-1 a.m.

Friday, Nov. 18, 12:50-1 p.m.

Data is central to the development and evaluation of machine learning (ML) models. However, the use of problematic or inappropriate datasets can result in harms when the resulting models are deployed. To encourage responsible AI practice through more deliberate reflection on datasets and transparency around the processes by which they are created, researchers and practitioners have begun to advocate for increased data documentation and have proposed several data documentation frameworks. However, there is little research on whether these data documentation frameworks meet the needs of ML practitioners, who both create and consume datasets. To address this gap, we set out to understand ML practitioners' data documentation perceptions, needs, challenges, and desiderata, with the ultimate goal of deriving design requirements that can inform future data documentation frameworks. We conducted a series of semi-structured interviews with 14 ML practitioners at a single large, international technology company. We had them answer a list of questions taken from datasheets for datasets. Our findings show that current approaches to data documentation are largely ad hoc and myopic in nature. Participants expressed needs for data documentation frameworks to be adaptable to

their contexts, integrated into their existing tools and workflows, and automated wherever possible. Despite the fact that data documentation frameworks are often motivated from the perspective of responsible AI, participants did not make the connection between the questions that they were asked to answer and their responsible AI implications. In addition, participants often had difficulties prioritizing the needs of dataset consumers and providing information that someone unfamiliar with their datasets might need to know. Based on these findings, we derive seven design requirements for future data documentation frameworks such as more actionable guidance on how the characteristics of datasets might result in harms and how these harms might be mitigated, more explicit prompts for reflection, automated adaptation to different contexts, and integration into ML practitioners' existing tools and workflows.

[The Use of Negative Interface Cues to Change Perceptions of Online Retributive Harassment](#)  
**Song Mi Lee, Andrea K. Thomer, Cliff Lampe**

Wednesday, Nov. 9, 10:20-10:30 a.m.

Thursday, Nov. 17, 10:20-10:30 p.m.

Online retributive harassment refers to a range of abusive online behaviors targeted at offenders with the intent of sanctioning norm violations. Online retributive harassment is common in online interactions, can be devastating in its effect, and is hard to moderate. We examined the role that negative interface cues (i.e., Dislikes, flags) might have in changing people's harassment perceptions to mitigate this activity. We conducted a 4 X 2 between-subjects experiment (N = 242) to test the effects of interface cues (control with Likes only vs. Dislikes outnumbering Likes vs. Likes outnumbering Dislikes vs. a flag with Likes) and harassment severity (low vs. high) on how people perceive retributive harassment. We hypothesized that Dislikes and flags, despite the presence of Likes, signal social disapproval and descriptive norms against harassment and thus reduce bystanders' belief that retributive harassment is appropriate, deserved, or justified. We found that Dislikes can be effective when they outnumber Likes in high-severity harassment but backfire when outnumbered by Likes. A flag, contrary to popular practice, does not have a significant mitigating effect on perceptions of retributive harassment. We demonstrate the potential of negative interface cues to signal anti-harassment norms to bystanders and discuss alternatives to social media platforms' one-size-fits-all content moderation approach.

[Voting with the stars: Analyzing Partisan Engagement between Celebrities and Politicians in India](#)

Ramaravind Kommiya Mothilal, Dibyendu Mishra, Sachita Nishal, Faisal M. Lalani, **Joyojeet Pal**

Thursday, Nov. 10, midnight - 12:10 a.m.

Wednesday, Nov. 16, noon - 12:10 p.m.

Celebrity influencers are increasingly central to political discourse as they engage in, and get engaged with, on matters of electoral importance. In this paper, using Twitter data from 1432 sportspersons and entertainers and their engagement with the 1000 of the most followed ruling party and opposition politicians from India, we propose a new method to measure partisanship of celebrities along different modes of engagement. Our examination of polarization shows patterns related to both party incumbency and the level of internal organization. We find that the

ruling BJP has been more effective than the opposition, the INC, in organized outreach to celebrities, by eschewing explicit party-based partisanship, and instead employing patriotism as a narrative technique. We find that while entertainers are equally engaged by both the ruling and opposition parties, sportspersons, who often enjoy a nationalist appeal by virtue of representing the country, tend to have a much more partisan relationship with the incumbent party.

[Wearing a High Heel and a House Shoe at the Same Time: Parents' Information Needs While Navigating Change in their Child's Behavioral Care](#)

[Olivia K. Richards](#), [Carol F. Scott](#), [Allison Spiller](#), [Gabriela Marcu](#)

Thursday, Nov. 10, 6-6:10 p.m.

Wednesday, Nov. 16, 6-6:10 a.m.

Change is an inevitable part of a parent's role, whether due to their child's development, family life, or external events. To understand the information needs of parents navigating change, we studied the effects of the COVID-19 pandemic as a widely experienced disruption in the lives of parents and children. We interviewed 16 parents about their caregiving experience as the COVID-19 pandemic collapsed boundaries between home, school, and work. In particular, we asked about adjustments to behavioral care, or the social learning, supports, and interventions through which children develop social and emotional skills. We focused on parents of children already receiving accommodations and behavioral support from their school, to understand how disruptions in these services affected the role of the parent in meeting their child's individual needs. Applying role theory and the Kübler-Ross change curve, we describe the coping mechanisms that parents used to navigate the stages of change, as well as the information needs that remained unmet, despite their efforts. We discuss how practitioner-initiated and parent-centered supports can be designed around the lived experience of change, by accommodating a parent's capacity to accept and use help at different stages.

[Women's Perspectives on Harm and Justice after Online Harassment](#)

[Jane Im](#), [Sarita Schoenebeck](#), Marilyn Iriarte, [Gabriel Grill](#), Daricia Wilkinson, [Amna Batool](#), [Rahaf Alharbi](#), [Audrey Funwie](#), *Tergel Gankhuu*, [Eric Gilbert](#), [Mustafa Naseem](#)

Thursday, Nov. 10, 1:10-1:20 a.m.

Wednesday, Nov. 16, 1:10-1:20 p.m.

Social media platforms aspire to create online experiences where users can participate safely and equitably. However, women around the world experience online harassment, including insults, stalking, non-consensual sharing of sexual photos, and aggression. This article explores women's perceptions of harm associated with online harassment and preferred platform responses to that harm. We conducted a survey in 14 geographic regions around the world (N=3,993), including regions whose perspectives have been insufficiently elevated in social media governance decisions (e.g., Mongolia, Cameroon). Results show that, on average, women perceive greater harm associated with online harassment than men, especially for non-consensual image sharing. Women also prefer most platform responses, especially removing content and banning users, but are less favorable towards payment. Compared to

men, women prefer banning users, revealing identity of perpetrators, and labeling content. We reflect on the importance of centering the experiences of people harmed when designing platform responses, as well as the complexity of justice models when considering gender.

[The work of digital social re-entry in substance use disorder recovery](#)

**Chanda Phelan Kane**, Jeremy Heyer, Rachel Pfafman, Connie Kerrigan, Golfo K Tzilos Wernette, Lynn Dombrowski, Andrew D Miller, Jessica Pater

Thursday, Nov. 10, 2:20-2:30 p.m.

Wednesday, Nov. 16, 2:20-2:30 a.m.

Early recovery after substance use disorder (SUD) treatment is a high-risk period. The majority of people will relapse, often within weeks of completing treatment. In the modern era, re-entry upon completion of treatment includes both digital and non-digital spaces. Digital spaces, including social media, present unique challenges to the recovery journey. However, research has rarely focused on the ways in which technology affects this critical period. We conducted in-depth interviews with 29 participants (8 recoverees and 21 support professionals) across two treatment sites to explore this gap. Using an inductive thematic approach, we gained insights into digital social re-entry, a term that we introduce to describe the process of re-engaging with social spaces online. We describe the work of digital social re-entry, which includes 1) remaking social networks, 2) maintaining boundaries, 3) managing triggering content, 4) resisting access to substances, and 5) shifting personal identity. We conclude by characterizing strategies for navigating digital social re-entry and discussing ways to better support recoverees during this aspect of their recovery journey.

## **Panels**

[Consent: A Research and Design Lens for Human-Computer Interaction](#)

Douglas Zytka, [Jane Im](#), Jonathan Zong

Monday, Nov. 14, 9-10:30 p.m.