U.S. Arab/SWANA Diaspora's Technocultures of Consent: The Case of Online Dating Apps

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Abstract

Social computing technologies play an important role in consent exchange and interpersonal consensual processes, processes that are painted by gender, sexuality, race and other identity facets. Through a guided reflective writing questionnaire (N=20) and semi-structured interviews (N=13) with self-identified second- and subsequent Arab & Southwest Asian and North African (SWANA) diaspora generations in the U.S, we explore individuals' online dating experiences with particular attention to consent-related behaviors, beliefs and experiences. In doing so, we illuminate the U.S. Arab/SWANA diaspora's technocultures of consent. We coin the term *technocultures of consent* to describe the understandings and practices of consent that are influenced, co-produced or expressed by interaction between technology and people, as well as to refer to a lens with which to make sense of these experiences. We demonstrate how

the technocultures of consent lens reveal connections between individuals' identities and social positions. consent-related beliefs and behaviors and a technology's design, norms and expectations. We do so by focusing on connections between privacy concerns, nonconsent and sociocultural dynamics, as well as the consent-related safety work participants engaged in to protect against nonconsent. In this consent-related safety work, we extend warranting theory to include how information assumed about a person on the basis of perceived identity, not information solely presented by a person, is warranted as part of participants' efforts to reduce uncertainty around (non)consent. We also develop the novel concept of networked consent to describe participants' belief that one's consent practices and experiences are bound and connected to others with perceived identity and experiential affinity, and demonstrate how this motivated consent-related safety work that aims to protect others from nonconsent. We argue that dating app norms and design do not provide sufficient space for consent processes that center values of safety, trust and kindness to occur, and propose future directions for research and design that may prioritize these values for consent. We also introduce the concept of tiered platform safety to refer to a system where platforms monetize features related to safety, privacy and consent and argue this model helps create an ecosystem where one's safety, privacy and interpersonal (non)consent are cost-dependent. CAUTION: Due to the focus of this paper on (non)consensual experiences and interactions, some content might be distressing to some readers. This paper includes quotes about about nonconsensual experiences, as well as some literature on sexual assault and violations of consent.

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1 Introduction

Social computing technologies play an important role in consent exchange and interpersonal consensual processes [144]. Prior work has demonstrated the ways that cultural beliefs and technological features intertwine into technocultures that inform the behaviors of certain groups [26]. In this study, we are particularly interested in interpersonal consent-related beliefs and practices that inform and shape relations and behaviors between people as mediated by technology, namely computer-mediated technologies and social media. One context where consent-related beliefs and practices are particularly relevant are dating applications (e.g. Tinder, Hinge, Grindr). Dating apps differ from traditional dating websites by shortening the time between online contact to offline interaction, with dating apps shifting norms for progressing a dating connection [142]. And, unlike social networking platforms, their usage is driven by peoples' expectations for connecting with strangers for multiple purposes [142] (e.g., finding friends, long-term romantic partners, short-term sexual partners). Within these many reasons a person might choose to use a dating app, dating apps have been shown to mediate consent to sexual behaviors and other interpersonal interactions, explicated by individuals' consent-related beliefs and practices [143].

Drawing inspiration from Kozinet's definition of technocultures [72]¹ and Brock's conception of technoculture as a triad consisting of artifacts-practices-beliefs [27], I use the term technocultures of consent to describe the *understandings and practices of consent that are influenced, co-produced or expressed by interaction between technology and people*. Technocultures of consent acts as a lens for making sense of understandings and practices of consent in online spaces that culminate from the interplay between individuals' identities and social positions, consent-related beliefs and behaviors, *and* technology and its features. This lens offers an intersectional approach to understanding the experiences individuals have in online spaces with regards to consent, technology and its users—people who hold a myriad of identities, and varying experiences with stigmatization and marginalization and power. In this study, we contribute and apply this lens to dating apps—a social computing context ripe for exploring the interplay between individuals' various identities and social positions, consent-related beliefs and practices, and technology's features. In doing so, we consider the implications of dating apps for preventing harms associated with the absence of consent *and* encouraging consensual, positive experiences, while also being attuned to how gender, sexuality and race may paint these interactions.

Consent on and mediated by online dating apps are gendered [45,143] and racialized [43], echoing legal scholarship's finding of the gendered and racialized nature of interpersonal consent processes (e.g. granting consent, seeking consent, judging violations of consent) [53,58] that increase the magnitude of nonconsensual harms for communities already marginalized by systems of racism, sexism, heteronormativity, and other intersections of race, class, gender and sexuality in the matrix of domination

¹ Technocultures are the culmination of "various identities, practices, values, rituals, hierarchies, and other sources and structures of meanings that are influenced, created by, or expressed through technology consumption." [72]

[63]. It is important to consider technocultures of consent among gendered and racialized communities, and we argue that doing so will help us better understand the interplay between identity, technology and interpersonal consent. For this study, we focus on the Arab and Southwest Asian and North African (SWANA) diaspora in the United states.

The Arab and SWANA² diaspora in the United States, despite being considered 'white' by the U.S. government, has been feminized and racialized as "Other" [94,115]. Depending on an Arab/SWANA individual's perceived proximity to whiteness, as well as characteristics like religion, class, political beliefs, nationality, and experiences with discrimination [8,83], their insider-outsider status to a (white) U.S. national identity is fluid and conditional [82,94], and riddled with a shared experience (to varying degrees) of racial-ethnic trauma [15]. Gender, sexuality and race play critical roles in the racialization of the Arab/SWANA diaspora in the U.S., and the diaspora's negotiations to remain 'culturally authentic' while selectively integrating to access opportunities affiliated with the white U.S. middle class [95]. As a result, gender, sexuality and race might be particularly salient when exploring the technocultures of consent that emerge across online dating apps among the U.S. Arab/SWANA diaspora. This salience provides an opportunity to consider the ways that gender, race and other intersecting identities [39] interplay with technologies to shape interpersonal consent-related beliefs and experiences. These insights have implications for individuals' safety, well-being and enactment of sexual agency.

Taking a transnational approach in making sense of the online dating experiences of second- and future generations of Arab- and SWANA-Americans, this project moves beyond geographic boundaries to conduct analyses that treat the U.S. and SWANA regions as geographically unbounded. We consider the ways U.S. and Arab/SWANA- social, cultural and political histories converge to shape the gendered and sexual experiences of the Arab/SWANA diaspora in the U.S. [97]. Through a guided reflective writing questionnaire (N=20) and semi-structured interviews (N=13) with self-identified second- and subsequent Arab/SWANA diaspora generations in the U.S, this study explored individuals' online dating experiences with particular attention to consent-related behaviors, beliefs and experiences. In doing so, this project begins to illuminate the U.S. Arab/SWANA diaspora's technocultures of consent and reveals its implications for interpersonal consent, and technology more broadly.

We found that women and non-binary people in the Arab/SWANA diaspora in the U.S. had a broad understanding of consent that extends beyond the physical, and is recognized as an important sociotechnical issue relevant to dating apps, designers *and* society. We found that individuals' understandings and practices of consent valued boundaries, safety, trust and kindness, but revealed tensions with dating app design and others met through these platforms when those values were not

² For this paper, we aim to focus primarily on Arab/SWANA diaspora culture, cultural practices, and the ways culture and identity relates to experiences with online dating and consent, without ignoring how the Arab/SWANA identity has been racialized in the U.S context. Out of concerns to not further reify essentializing racial categories, the decision of 'naming' my target population was one we wrestled with greatly for this paper, recognizing the contested nature of naming a very heterogeneous group descending from multiple, often diverse, continents and countries. We chose to use the term SWANA [31] to respect the intra-ethnic diversity often conflated with "Arab" among the 22 countries in the Arab League [119], as well as use SWANA as a designation that includes "all of the Arab League countries and Iran, Turkey, and sometimes Armenia" [14]. We are aware that a faulty conflation with Arab often dismisses that "there are Lebanese, Syrians, Palestinians, Iraqis, Kuwaitis, Yemenis, Saudi Arabians, Bahreinis, Qataris, Dubais, Egyptians, Libyans, Tunisians, Moroccans, Algerians, Sudanese, Eritreans, and Mauritanians; there are Maronites, Catholics, Protestants, Greek Orthodox, Jews, Sunnis, Shi'a, Druze, Sufis, Alawites, Nestorians, Assyrians, Copts, Chaldeans, and Bahais; there are Berbers, Kurds, Armenians, bedu, gypsies, and many others with different languages, religions, ethnic, and national identifications and cultures who are all congealed as Arab in popular representation whether or not those people may identify as Arab' [68]. Arab, Arab American, and Middle Eastern and North African (MENA) are popular terms in the literature to refer to this very heterogeneous group that we refer to as Arab/SWANA.

shared. We discovered that gendered and racialized power dynamics complicated peoples' efforts to negotiate consent, and that, at times, dating apps hindered individuals' abilities to enact agency in their consent-related experiences. We also learned that participants believed that consent was something that had to be communicated, but was fundamentally misunderstood and, thus, unexpected on dating apps. As a result, we identified the practices that emerged from these understandings and individuals' efforts to mitigate risk for nonconsent.

Through our findings and analysis, we contribute the following:

- We apply and offer the lens of technocultures of consent to situate the positive and negative consent-related experiences of individuals experiences as facilitated by technology— specifically, we focus on connections between privacy concerns, nonconsent and sociocultural dynamics, as well as the consent-related safety work participants engaged in to protect against nonconsent.
- We expand the scope of warranting theory to encompass information inferred about an individual *based on their perceived identity*, rather than solely relying on information presented by the person, when participants aim to reduce uncertainty and ensure consent-related safety.
- We propose the novel concept of *networked consent* to describe the belief that one's consent practices and experiences are bound and connected to others with perceived identity and experiential affinity, and demonstrate how this motivated consent-related safety work that aims to protect *others* from nonconsent.
- We offer a reflection on the limits of dating app norms and design for providing space for consent processes that center values of safety, trust and kindness to occur. We then propose future directions for research and design to consider how we might allocate space and time for consent to occur on dating apps and other CMC technologies.
- We introduce the concept of *tiered platform safety* to refer to a system where platforms monetize features related to safety, privacy and consent and argue this model helps create an ecosystem where one's safety, privacy and interpersonal (non)consent are cost-dependent.

2 Literature Review

2.1 Consent

Consent has been increasingly discussed in Human Computer Interaction (HCI) and Computer-Supported Cooperative Work (CSCW) literature by scholars hoping to understand the ways consent is exchanged, and consensual processes are experienced with social computing technologies [144]. Consent has been applied to data sharing [78,99,120], interactions among users of online platforms [45,98], online-to-offline interactions and harms (e.g. harassment, intimacy) [35,44,52,71,143,146] and other kinds of relationships and interactions part of HCI more broadly [66,124,135]. Due to the varied contexts and experiences in which consent can be relevant, there is no singular definition of consent consistently used in HCI and CSCW. However, values of safety, personal agency, and well-being are recurring themes salient in HCI and CSCW consent research [66,98,135]. A lack of a widely used definition for consent is also present across legal and feminist scholars, as well as sexual communication and sexual violence researchers [20]. Beres notes that consent is often referenced 'spontaneously', relying on assumed definitions without clearly articulating what a scholar means specifically. As a result, consent

has been conceived as a physical action, mental state, or both; as a morally transformative concept; as a state uninfluenced or shaped by the presence of coercion and force, etc. in these legal, feminist, sexual communication and sexual violence contexts [20].

Whereas a common-law 'no means no' consent standard assumes consent is given unless otherwise stated or forcibly resisted [62], an affirmative consent standard requires all parties in a sexual interaction to give 'free and voluntary' consent to an interaction [53,77]. Affirmative Consent [66] and the 'FRIES model of consent' [107,124] are two examples of consent frameworks that derive from sexual consent models and have been applied in HCI contexts. Affirmative Consent is "a precursor to interpersonal interaction designed to ensure agency and positive outcomes" [66:1]. It emphasizes that one must ask and receive ardent approval prior to engaging in each specific interaction with another person [51]. The FRIES model of consent was an acronym³ established by Planned Parenthood as a way to help guide consensual behaviors; embodying many similar qualities to affirmative consent [107]. Both Affirmative consent and the FRIES model share five similar qualities for consent: that consent is freely given/voluntary, informed, enthusiastic/unburdensome, revertible/reversible, and specific [66,124].

Supporters of an affirmative consent model argue that, compared to the 'no means no' consent standard, affirmative consent advances and asserts women's rights to sexual self-determination and autonomy, as well as equality; positioning women as having agency and an equal determination in their sexual relations and interactions with others [53,62]. However, Gotell argues that affirmative consent generates new neoliberal governed sexual subjects participating in a transaction-based sexual economy [58]. In other words, affirmative consent—while centering individual agency in efforts to prevent harm—perpetuates an individual responsibility for navigating transactions of consent (e.g. ask/receive, give/deny). Depending on someone's position in society, some bodies are rendered violable (perceived as having a likelihood or possibility to be violated). As a result, violence against certain groups comes to be expected or naturalized, and their personhood denied. Understanding the ways that gender, class and race impact the power relations salient to matters of consent and results in vulnerabilities is, as a consequence, dismissed in neoliberal discourses of responsibilization [58]. It is also important to note that much of consent literature speaks to sexual consent and its processes in a very heteronormative way in part due to the lack of consent literature that focuses on LGBTQ+ sexual experiences [59]. Queer communities' sexual experiences and engagement in consent processes challenges "the gender binary of male perpetrator and female victim and [shifts the] focus on existing power structures and dynamics, regardless of gender, gender expression, or sexual identity" [59:704]. This shift motivates this study to make sense of individuals' online dating experiences and (non)consensual interpersonal interactions through a lens of power, not through essentialist notions of gender, sexuality, and identity.

Race, gender and class implicate the role of power and how it may shape consent-related processes and experiences. Gender, class and race impact power relations salient to matters of consent and results in vulnerabilities often dismissed in neoliberal discourses of responsibilization where what makes someone 'vulnerable' is their own responsibility or problem to manage, and any vulnerability is accredited with risk-taking [58]. The ability for giving or withholding affirmative consent is shaped by gendered power relations and gender or societal norms [53]. (Hetero)Normative sexual scripts position men as initiators of sexual activity and women as passive receptors responding to men's sexual wants, ignoring women as potential initiators, mutually initiated sexual interactions or the ways that who initiates may shift during an ongoing sexual interaction [20]. Additionally, race and class intersect with gender to

³ FRIES stands for Freely Given, Reversible, Informed, Enthusiastic, and Specific, and was an acronym created by Planned Parenthood for teaching consent [107].

construct notions of who is deemed a rational actor and, therefore, shapes judgements of innocence, riskiness, propensity to commit harm or experience harm, etc. [58]. For example, Tillman et al. describe rape myths that position Black women as stereotypically sexually promiscuous, and therefore, unable to be sexually assaulted and experience violations of consent [128]. As another example, Aosved and Long established that there is a correlation between individuals with high levels of racist, classist, sexist, etc. beliefs and higher levels of rape myth acceptance—rape myths that position, for example, those from a lower socioeconomic status as at-fault for any sexual violence and nonconsensual interactions they experience [13]. Altogether, these prior works demonstrate the ways in which identity, norms and power relations are integral to consent-related processes and interactions.

Prior work on consent across multiple contexts, as shown in this section, commonly signals, implicitly and explicitly, the following values as important to consensual interpersonal interactions: Agency and Autonomy [19,30,47,58,66,77,143]; Safety and Trust [35,45,56,58,122]; Equality and Respect [3,53,77,112]; Well-Being [10,19,46]. Online dating is one context where these values are particularly relevant as dating apps and people's experiences with and mediated by them may reflect and/or conflict with values of consensual interpersonal interactions [11,45,49,105,108,143].

2.2 Online Dating Apps as Sites for Consent Negotiation

Online dating apps can be thought of as a type of social matching system, one that "(partially) automate[s] the process of bringing people together" [126], around a variety of goals, such as finding short-term romantic partners, new friendships, and long-term partnerships [129,145]. Consent is particularly relevant to online dating applications that can also be thought of as tools "for the safe processes of exchanging consent to sex that [online dating apps] facilitate and encourage through design" [52:1], as well as other interpersonal interactions, such as initiating conversation or friendship, planning an off-platform encounter (e.g. in-person date), etc. [37]. For example, Zytko et al. identified two computer-mediated consent processes: 1) consent signaling, where individuals assume or indicate consent to sex via the dating app interface, without any direct confirmation of consent before sexual activity occurs, and 2) affirmative consent, where individuals use the dating app interface to engage and normalize open and direct conversations about sex on and offline [143:1]. While some may be pessimistic about what dating apps mean for love [17], prior work has found that people who use dating apps believe they have access to more dating opportunities and additional agency for meeting and pursuing possible partners for a variety of goals, as opposed to more traditional dating originating offline [142].

Identity has been shown to shape online dating and consent exchange experiences, with disparate adverse impacts on marginalized groups. For example, prior work on computer-mediated consent to sex reveals a gendered experience of consent exchange: assumptions of consent and initiating sex with potential partners via consent signaling processes is frequently done by cisgender men, whereas affirmative consent practices were more common among those who identify as LGBTQIA+ [143]. Additionally, women and LGBTQIA+ dating app users have reported their efforts to discuss sexual consent with cisgender men online have often been misinterpreted as sexual advances and flirtation, resulting in unwanted interactions [52]. Race has also been demonstrated to impact consent-processes in online dating contexts. For example, Dietzel et al. finds that racialized men who have sex with men (MSM) experience higher rates of nonconsensual sexual interactions in their usage of dating apps, attributed in part to sexual racism and race fetishization [43].

Design of online dating apps can also signal to users what interactions are expected in ways that enable or support (non)consensual interactions. For example, queer women experience harassment from men on dating platforms. However, formal avenues of reporting harms like harassment and sexually aggressive behavior are rarely used as doing so is thought of as being contradictory to the technoculture of apps, like Tinder, where queer women who receive explicit and sexually aggressive behavior from men perceive that type of behavior as expectations of the platform [45]. This is exacerbated by features of design, such as the design of Tinder's 'Report' button, that is obscured and difficult to locate. By concealing the 'Report' button "behind a nondescript icon with three dots", it establishes the perception that formally reporting others is not regularly used or needed by users [45:244]. Duguay et al. argue that design choices like this reinforce "tinder's toxic technoculture, doing nothing to support—indeed working against—queer women's continued agency and participation on the platform" [45:244]. Design, in this example, enables nonconsensual gendered experiences of harassment and hinders queer women's personal agency against unwanted interactions with cisgender men. Design features that could protect agency and against nonconsensual interactions are obscured and made to appear 'atypical'.

Online dating raises concerns for safety and harms, including those as a result of nonconsensual interactions. For example, women may experience risks such as privacy infringements, harassment and stalking—"risks that can magnify if sexual or romantic advances are refused, or invitations for future meetings declined"[146:2]. By not consenting to advances from other people or agreeing to future encounters, women are at increased risk for nonconsensual harms (e.g. harassment). To help prevent non-consensual online-to-offline harms women may encounter with online dating, Zytko et al. argue that the design of messaging interfaces can help women "retain agency over the risks that they subject themselves to by effectively predicting who they will enjoy a face-to-face encounter with" [146:2]. In this instance, recognizing that online dating experiences with consent and nonconsensual behaviors (like harassment) are gendered, design is re-imagined to provide additional support to women navigating online interactions to prevent harms; design considers and responds to the gendered user [16]. On the other hand, Gillett et al. found that platforms, including online dating apps, often frame harmful content and interactions as done by 'bad actors', emphasizing individuals and their behavior instead as opposed to systemic or structural factors [57], such as sexism, misogyny and heteropatriarchy [32]. As a consequence, individuals are positioned as responsible for managing their own safety against 'bad actors' by using the platforms' provided tools to shape their experiences online according to their own safety goals [57].

With an understanding of the ways in which identity and power shapes consent-processes and the experience of online dating, we look to the Arab/SWANA U.S. diaspora's online dating experiences. By trying to understand this community's technocultures of consent, we gain a better understanding of the ways technology and consent are implicated by identity and power relations.

2.3 Gender, Sexuality and Race in the Arab/SWANA U.S. Diaspora

The Arab and SWANA diaspora in the United States share a long contested history of racialization, with their inclusion into 'whiteness' and lived experiences over time heavily shaped by social, political and geographic forces [6,82,83]. The U.S. Arab and SWANA diaspora are legally classified as 'white' [94,115], however, individuals lived racialized experiences as insider-outside to (white) U.S. national identity [82,94] exemplifies racial loopholes [82] that contribute to a shared experience, albeit to varying levels, of racial-ethnic trauma in the United States [15]. Maghbouleh uses

the concept of racial hinges to describe the ways racially liminal groups [104], such as members of the Arab and SWANA U.S. diaspora, bend and shift across 'doors of whiteness', experiencing a type of racialization that highlights the boundaries of whiteness de jure and de facto [82]. For example, Maghbouleh describes the ways that generations of Iranian Americans "appear to socially and successively 'brown' over time rather than 'whiten'" [82], sharing how second-generation Iranian Americans experience a stigmatized racialization growing up based on their inability to fit neatly within hegemonic whiteness [82]. More broadly, the Arab and SWANA diaspora in the United States is often rendered invisible under de jure classifications of whiteness [125], while simultaneously being 'browned' in their (de-facto) lived experiences [23,82].

Within these constructions of race, the Arab/SWANA diaspora—not including those who are able to and desire complete assimilation⁴, such as those who wish to avoid being perceived as a 'hyphenated American' or to be labeled "Arab" [114]—engage in cultural authentication processes to navigate their position in U.S. society and relations with an imagined community and homeland with an imagined shared Arab and/or SWANA culture. Naber refers to the politics of cultural authenticity as a "process by which middle-class Arab diasporas come to herald particular ideals as markers of an authentic, essential, true, or real Arab culture" [96]. Naber argues that the politics of cultural authenticity may also be thought of as a selective assimilation strategy that brings to light two seemingly contradictory desires: wishes to maintain an authentic Arab culture by providing a way for establishing a sense of belonging and cultural connectivity with a distant homeland, and hopes to achieve the 'American dream' by providing a way to achieve acceptance, belonging and assimilation within a white U.S. middle-class [94,96]. By adhering to notions of respectability defined by white middle-class ideals [96], the U.S. Arab and SWANA diaspora may work to prove their worthiness of acceptance similarly to members of other marginalized groups (e.g., Black Americans) in the U.S. who may engage in respectability politics in efforts to assimilate [38].

One might consider ideas of cultural or ethnic authenticity as identity projects within a generational framework, where notions of authenticity are contested between different diaspora generations [81,96]. For example, second-generation Iranian Americans experience an inherited nostalgia, from their first-generation immigrant parents' stories and relationships, that shapes their practices of longing and belonging, such as clinging to symbols of Iranian History and popular Iranian music to establish a sense of cultural authenticity shared with other SWANA communities [81]. Additionally, first-generation Arab immigrants are positioned as gatekeepers for managing and maintaining the authenticity of "Arab Culture" among the Arab / SWANA diaspora, while future generations—of which make up the population of focus in this study—are represented as individuals with the potential to continue or threaten cultural authenticity for the diaspora in the U.S. The politics of cultural authenticity produces sets of rules that work to govern the lives of future generations of Arab (and SWANA) Americans, disproportionately and uniquely impacting women and queer members of the diaspora through the ways cultural authenticity is explicated by conceptions of a 'good Arab girl', commitments to a patriarchal nuclear family, and the presence of compulsory heterosexuality [96]. For example, for Arab American women, reputation and gossip—kalam al-nas (word of the people)—is centered on gender performance and sexuality, and the perception of one's family through her and other women family

Assimilation "implies a choice to fundamentally become American. Making this choice involve[s] stripping away particular attributes (language, dress, mannerisms, marriage practices), yet some elements of cultural behavior...have strategically been incorporated into their white American identities, or new amalgamations have emerged" [114]. Complete assimilation, in this context, accentuates the notion of the 'American melting pot', melting away one's differences into a single uniform (white) American identity [79], as opposed to some form of multiculturalism where individuals are encouraged to practice essentialized versions of their cultural identity amidst many others [96].

members' sexuality [3,96]. Arab men's reputation, alternatively, is centered on his achievements and stature [96]. The implications of kalam al-nas within the Arab diaspora are heightened, where one's reputation and behaviors are set to not only reflect one's entire family but also the entirety of Arabs in the United States [96]. In the United States, the existence of an imagined Arab community—'al-nas, the people'—within the broader imagined America "reinforces the implication of one's family within acts of transgression, cultural loss, and Americanization and thus expands the stakes placed on young adults' desires, actions, and behaviours" [96]. Within these desires, actions and behaviors, matters of gender and sexuality are particularly salient.

Gender and sexuality are integral to idealized perceptions of Arab and SWANA communities, such as concoctions of Arabness and traditional sentiments of Americanness in the diaspora that work to distinguish Arabs from stereotypical Americans, generating an oppositional binary "us" and "them" [9,94,96]. Americanness is associated with non-normative sexualities and promiscuous women, and Arabness with good girls from good families who have good morals and sex within heterosexual marriages [96]. The politics of cultural authenticity, through this binary of "good Arab" and "bad Americans", works to police the bodies of single women and heightens the centrality of female sexuality to idealized notions of Arabness [96]. As a consequence, a desire to uphold an idealized, perfect image favoring virginity and premarital chastity may play a role in Arab American women's sexual decisions and sexual agency [3]. Similarly, the Iranian diaspora navigate their bodies and sexuality where sexual lives are organized across notions of desirable femininity, such as valuing premarital chastity, and a woman's sexuality being strongly linked with her family's honor [48]. It is important to note that Arab and SWANA women in the U.S. are not unique in their need to "negotiate tensions between ethnic/racial identity and societal gender and sexual norms" [3], as tensions around sex, relationships and social norms exist for other non-Arab and SWANA U.S. subjects [30,113] (e.g. individuals impacted by virginity pledges that may be promoted by Protestant and Catholic religious groups [113]). However, the politics of cultural authenticity [96] complicate the ways the desires, actions and behaviors of second and subsequent generations of the Arab and SWANA diaspora—such as those mediated through online dating apps—are carried out, with perceived implications for themselves and the broader imagined community—al-nas—in the United States.

It is important to also consider the ways transnational modalities of power—the ways in which power is experienced or expressed across and between nations [96]—shape Arab and SWANA diaspora's expressions of their desires, and behaviors because doing so allows one to better contextualize and situate these expressions. By understanding how these expressions of desire and behaviors are situated in a transnational landscape and influenced by power relations, one reduces the risk of further perpetrating analyses that are reductive and falsely attribute certain behaviors or cultural expressions as innate to a community or cultural identity. Instead, one can understand the contexts in which these expressions and behaviors manifest and shift across space and time. Conceptions of cultural authenticity are dynamic and ever-changing as the idealized Arab/SWANA culture within the diaspora is deeply intertwined with and shaped by transnational modalities of power, including U.S. Orientalist discourse, colonialism, imperialism, liberal U.S. multiculturalism, and race, gender, sexuality and class [96]. For example, Abdulhadi describes the ways that Arab anticolonial nationalists came to internalize European colonizer's victorian codes of morality and sexuality in the late 18th centuries, entrenching patriarchal and heteronormative national identities [5]—masculinist Arab heteronationalisms—that heavily characterize the diaspora's politics of cultural authenticity [96]. As another example, within U.S. Orientalist discourse that imagines and overstates the difference between 'the West' and 'the East' [115], Arab and SWANA

men are frequently depicted as prone to sexual transgressions and violence (e.g. rape), and women as both sexually oppressed or promiscuous and immodest [115]—these beliefs partly shape an idealized cultural identity that tries to differentiate Arabness or, more broadly, SWANAness from these orientalist narratives while consequently self-essentializing to rigid conceptions of gender and sexuality (e.g. a "good Arab girl") [96]. Naber refers to this process as engaging in cultural re-authenticity, developing an imagined true cultural identity "as a reaction or an alternative to the universalizing tendencies of hegemonic U.S. nationalism, the pressures of assimilation, and the gendered racialization of Arab women and men" [94:88].

Within these contexts of identity projects among the Arab and SWANA diaspora in the United States and the salience of gender and sexuality, there are false assumptions both within and outside the diaspora that Arab- and SWANA-Americans do not (and will not) engage in premarital sexual behaviors [2,3,94,96], unaware or outright dismissing the reality that some Arab/SWANA Americans regularly engage in a wide variety of sexual behaviors throughout their lifetimes [1,2,4,134]. While neoliberal Western feminists position religion, mainly Islam, as in direct opposition to women's sexuality, religion by itself is not uniquely responsible for decisions around enacting sexual agency, with prior work finding that religion often intersects with other power structures involving gender, race and ethnicity and historical and political circumstances [3,94].

Queer Arab/SWANA communities exist in both the SWANA region and its diasporas despite their frequent erasure from the diaspora's narratives [54,85,94]. For example, queer Arab Americans have reported experiencing race-based fetishization and rejection in their dating experiences, alongside a general sense of alienation from both LGBTQ+ and Arab/SWANA communities due to the purported idea that queerness and Arabness are mutually exclusive [85]. Misperceptions of queerness as a 'Western' phenomena, the imposition of "monolithic, monocultural versions of queer Western identity politics" [54] and compulsory heterosexuality integral to notions of cultural authenticity [96] contribute to a contested inclusion/exclusion of queer Arab- and SWANA-Americans as part of the diaspora [54,85]. This project aims to deliberately include the online dating experiences of queer Arab- and SWANA-Americans, not contributing to their erasure and, instead, aiming to highlight their experiences as a vital part of the diaspora.

To our knowledge, there has not been inquiry into the Arab and SWANA diaspora's dating experiences with and mediated by online dating applications, nor an understanding of this populations' understandings and practices of consent where intersectional identities [53] may be of consequence. It is important to note that this study's goal is not to discover and present the U.S. Arab and SWANA diaspora's understandings and practices of consent as a static, homogenous way of acting. Instead, this project will conceive of technocultures, and culture more broadly, as an outcome of multiple practices with shared or synchronized practices that can complement and challenge each other [7], all reflected in a technocultures of consent. By being attentive to what we refer to as the technocultures of consent lens—noting the relationships between identity and social positions, understandings and practices of consent, and a technology and its features—we can situate consent-related experiences implicated by technologies like dating apps across many myriad sociocultural and sociotechnical contexts.

Research Questions

This study aims to answer the following questions:

1. What understandings and practices of consent emerge as part of women and non-binary people in the U.S. Arab and SWANA diaspora's encounters with online dating apps?

- 2. How are these consent-related practices, beliefs and behaviors gendered and racialized⁵, and what does this say about interpersonal consent, online dating apps and technology's design more broadly?
- 3. How do the design, language, expectations/norms of and experiences with dating apps shape understandings and practices of interpersonal consent for women and non-binary people in the U.S. Arab and SWANA diaspora?

3 Methods

3.1 Data Collection

This study included two phases of data collection. Prior to collecting any data, participants reviewed and signed an informed consent form (See Appendix D and E).

3.1.1 Phase 1: Questionnaire with Guided Reflective Writing Entries (N=20)

The first phase involved a questionnaire soliciting reflective writing entries on past experiences with and mediated by online dating applications. We recruited 23 participants who were asked and consented to sharing 5 descriptions of their most memorable (whatever that means to them) interactions or experiences as mediated by online dating applications. These descriptions of memorable interactions or experiences were used as artifact probes for further reflection in Interviews (Phase 2). Prior work in HCI and CSCW have used activities and prompts before interviews occur as a way to generate a starting point for discussion in interviews [67,88]. For each interaction/experience shared, we asked participants to write a response to the following question: "What thoughts/feelings/emotions do you have looking back at this interaction/experience today?" The question was intentionally reflective and grounded in the present, as we know that 1) the amount of time that may have passed between when an interaction/experience occurred and this study might lead to recollection bias if participants were asked to report how they had felt/thought [73], and 2) we wanted to prompt writing entries that are contextualized within their broader (dating-related) experiences where reflection may have already occurred. All participants in this study wrote 5 reflections. The writing entries were dispersed to and collected from selected participants via Qualtrics. The questionnaire can be found in Appendix B, along with the email with instructions for selected participants.

It is important to note that participants were informed that the descriptions will be summarized/paraphrased (with care to remove any identifying information) in any future manuscripts. Participants were compensated a \$25 Amazon Gift Card for their participation in the guided reflective writing entries.

We'd also like to note 3 of the 23 participants, all heterosexual men, who submitted written reflections were not included in the data analysis for this project. This was largely in part to their submissions providing insufficient, low-quality data, and an inability to supplement with interview data as

⁵ By considering how technocultures of consent are gendered and racialized, we mean to explore the ways that race and gender are salient to consent-related beliefs and processes.

none wanted to participate in an interview. As a result, this study pivoted to focus on members of the diaspora who do not hold a privileged position in a heteropatriarchal society—women and non-binary individuals.

3.1.2 Phase 2: Semi-Structured Interviews (N=13)

In the 2nd phase of data collection, we carried out semi-structured interviews. All participants from Phase 1 were invited to participate in a 60 to 90 minute interview over Zoom (video or audio call, depending on preference).

13 of the 20 participants from Phase 1 were able to schedule and complete an interview to talk more about their online dating experiences. We used the written reflections from Phase 1 as artifacts to prompt further discussion in the interview. The interview protocol walked participants through a set of questions related to the following themes: 1) Perceptions, Goals, and Intentions of Online Dating Apps, 2) On-App vs On-to-Off App Interactions, 3) Interpersonal Positive and Negative Interactions, 4) Consent Values, and 5) Arab and/or SWANA Identity. All interviews except for 1 were conducted on Zoom, a video and audio calling service, where we adhered to participants' preferences for a video or audio-only call. Interviews' audio were used for transcription and analysis. We conducted and recorded interviews, taking detailed notes. Interviews lasted from 84 to 98 minutes (average = 88 min). The interview protocol can be found in Appendix C.

One interviewee, Rana, was interviewed via email due to privacy concerns around being overheard by members in her home if she were to speak out loud for a zoom call. For this participant, there were four emails exchanged for the interview over the span of a week. The first email included a Microsoft Word document with the interview protocol, which Rana filled out and emailed back with her written answers. Then, we emailed back the interview protocol with follow-up questions, which she answered and then sent back in her final email.

Participants were compensated with a \$25 Amazon Gift Card for their participation in the interviews.

3.2 Recruitment

We conducted purposive sampling, actively seeking out participants who are 18 years of age or older, live in the United States, self-identify as being part of the Arab or SWANA diaspora, but not a first-generation immigrant (born in the United States, with at least one first-generation (immigrant) parent, grandparent, great-grandparent and so on from an Arab and or SWANA country), and are active users of one or more online dating apps.

Participants were recruited through social media platforms including Facebook, Twitter, and Instagram with hashtags such as #SWANA, #MENA, and #OnlineDating. We also directly reached out to local organizations and groups across the U.S. that are directed towards SWANA populations⁶, requesting that they share calls for participants with their membership.

Additionally, we entered a research partnerships with the Center for Arab Narratives⁷ who have established a process for researchers working with Arab/SWANA communities to have their study

⁶ Organizations we reached out to: SWANA Alliance Chapters, For The Binat, Center for Arab Narratives, Radius of Arab American Writers (RAWI), Mizna, The Queer Arabs Podcast, Iranian Diaspora Collective, Epsilon Alpha Sigma Sorority Inc. Chapters (Arab Sorority), Omega Beta Eta (Arab Fraternity), Cultural Organizations at Universities Across the United States (based on larger populations of Arab & SWANA diaspora in the surrounding area)

² https://www.accesscommunity.org/health-wellness/can

materials dispersed nationally across multiple sites and communities. This was particularly helpful as we did not want to have our research solely include participants from Southeast Michigan where there is a large Arab/SWANA-American population just because it would be easier to recruit within an ethnic enclave. We wanted to be intentional about recruiting across the country—including Southeast Michigan—to improve study heterogeneity.

Participants who had participated in Phase 1 of the study (Section 3.1.1) were also asked to invite other participants to potentially participate by passing along the study's flier and link to the screening survey.

3.2 Screening Survey

Potential participants filled out a screening survey to be considered for this study. In addition to confirming eligibility requirements, we asked questions relating to specific demographics within the U.S. Arab/SWANA community; this was an effort to intentionally have a variety of ethnic, religious and cultural backgrounds represented within this broad Arab/SWANA category. For example, we wanted to avoid having a participant pool that is 100% Lebanese, Syrian and Palestinian, skewing the sample to the experience of Levantine Arabs in the U.S. Diaspora. Beyond working to ensure intra-ethnic diversity, we worked to recruit participants with a variety of genders, sexual orientations, socioeconomic statuses, etc. as these participants might provide insight into how technocultures of consent operate at the intersection(s) of race, gender and class. we also used the screening survey to learn about online dating experiences from a variety of participants' experiences with different dating applications (e.g. Tinder, Hinge, Grindr, Her), to ensure that participants speak to experiences from a wide variety of dating apps, as different dating apps may embody different values and norms [50], with implications for individuals' technocultures of consent. The screening survey can be found in Appendix A.

3.3.3 Participants

Pseudonym	Phase 1	Phase 2	Age	Ethnicity	SWANA Country of Origin	Self-Identify as Arab?	Gender	Pronoun s	Sexual Orientation	Online Dating Apps in Use
Leila	х		18	Persian	Iran	No	Female	She/Her	Straight	Hinge,Tinder
Rana	х	х	20	Lebanese / Sierra Leonean	Lebanon	Yes	Cis Woman	She/Her/ Hers	Lesbian	Bumble,Hinge, Tinder, Lex
Nazli	х	х	21	Iranian	Iran (Both)	Not Sure	Female	She/Her	Bisexual	Hinge,Tinder
Zeina	х	х	22	Arab American	Lebanon	Yes	Cis Woman	She/Her	Bisexual	Bumble,Hinge
Aria	х	х	23	Yemeni/Arab	Yemen	Yes	Cis Woman/No n-Binary	They/She	Pansexual	Hinge,Tinder

Pseudonym	Phase 1	Phase 2	Age	Ethnicity	SWANA Country of Origin	Self-Identify as Arab?	Gender	Pronoun s	Sexual Orientation	Online Dating Apps in Use
Ameerah	х	х	24	Middle Eastern	Iraq	Yes	Female	She/Her/ Hers	Straight	Baklava
Amina	х	х	26	Arab	Palestine	Yes	Woman, Gender Fluid	She/Her	Queer	Bumble,Her, Lex
Hana	Х	X	26	Arab	Palestine	Yes	Female	She/Her	Heterosexual	Hinge
Layal	х		26	North African	Sudan	No	Female	She/Her	Straight	Salams, Muzz
Mariam	х		26	Iranian	Iran	No	Female	She/Her	Straight	Hinge
Salma	х		26	Middle Eastern	Yemen	Yes	Female	She/Her	Bisexual	Hinge
Mila	х		27	Middle Eastern	Lebanon	Yes	Female	She/Her/ Hers	Bisexual	Hinge,Tinder
Samia	Х	х	27	Palestinian	Palestine	Yes	Woman	She/Her	Queer	Hinge
Sana	х	х	28	Assyrian	Iraq	No	Woman	She/Her/ Hers	Bisexual/Pan sexual/Queer	Hinge
Sara	х	х	31	Palestinian/ White (Mixed Ethnicity)	Falasteen	Yes	Nonbinary	They/She	Bisexual	Bumble, Lex
Ayah	х	х	32	Arab	Jordan	Yes	Woman	She	Straight	Bumble,Hinge, Tinder
Naima	х	x	32	Arab American	Lebanon And Egypt	Yes	Female	She/Her/ Hers	Heterosexual	Muzz
Noor	х	х	33	Arab/ Middle Eastern	Iraq	Yes	Female	She/ Her	Straight	Bumble
Sirine	х		33	Lebanese, Iranian, Irish, Italian	Lebanon, Iran	Yes	Non-Binary Afab	They	Pan	Bumble
Sahaab	х	х	35	Arab	Palestine	Yes	Woman	She/They	Queer	Bumble,Her

Table 1. We asked about and reported on participant demographics in their own words.

3.3.4 Data Analysis

For data analysis, we followed Charmaz's constructivist grounded theory [34] in efforts to better understand the Arab and SWANA diaspora in the U.S.' technocultures of consent and its elements and the relationships between them, as framed by participants *and* ourselves as researchers. Constructivist grounded theory has a feminist commitment to reflexivity and subjectivity, with an understanding that the theories emerging from analysis are "*embedded in the historical, social, cultural, and situational conditions of their production*" [36]. Our analysis process was very iterative, with data collection informing data analysis and vice versa.

As part of the constructivist grounded theory approach, we conducted open- (initial), followed by focused- and theoretical coding [34]. We coded written reflections and interview transcripts using Dedoose, a qualitative data analysis software. To begin, we carried out inductive open-coding on participants' written reflections—producing 638 initial codes. We then transferred these codes into Miro, an online whiteboard tool, and organized into themes, referring back to the written reflections and their coded excerpts, to produce 99 focused-codes such as *Encountering Unwanted or Unexpected Behavior*, *Positive Feel-Good Behaviors between Dating Match* and *Identity Values/Attitudes/Norms Shaping Dating Experience*. Next, we applied these focused codes to the written reflections, as well as all interview transcripts. Afterwards, we exported all excerpts labeled with codes relating to consent (e.g. *understanding of consent, practices of consent, consent [gendered], identity-informed consent*) into Miro. We organized excerpts into groups. Then, we checked for connections between groups of excerpts and their previously applied codes to produce broader themes (e.g. *Subtext of Dating Apps, Labor and Work of Ensuring Consent, Consent-Based Affordances on Dating Apps)*.

We chose to analyze participants' written reflections and interviews together as opposed to separately because participants' reflections were used to prompt conversation in interviews and, thus, deeply connected to the topics discussed, and provided helpful context. Participants' quotes from reflections were used if they *only* participated in Phase 1 of data collection *or* if a written reflection helped to provide important context or a clearer example of an experience discussed during an interview.

3.4 Limitations and Opportunities

While SWANA includes Arab and Non-Arab individuals, a major limitation of this study is that the majority of the participants, reflected both in the written reflection and interview phase of data collection, did identify as Arab. As a result, a deeper diver into non-Arab SWANA experiences is critical to understanding the diverse range of experiences among the SWANA diaspora. It is also important to acknowledge that when recruiting for this study, recruitment materials included the phrase Arab and SWANA diaspora, despite Arab fitting into the SWANA category. This might have contributed to an over recruitment of Arab participants. We have retained this reference to the U.S. Arab and SWANA diaspora in this manuscript due to the majority of participants identifying as Arab. This study relied on cultural organizations and the author's personal social media channels to recruit participants. While others shared the call for participants, such as by retweeting on X/Twitter, this may have limited the participant sample to reflect the primary and secondary networks of the author. This study did not include Arab/SWANA first-generation immigrants who may also have unique online dating experiences.

We might have missed out on those who did not have the bandwidth to find our study, complete its screening survey, and commit to potentially 90 minutes of conversation over Zoom. Additionally, as reflected by participants like Rana who asked for an interview via email due to concerns around being

overheard during a virtual interview, this study might have excluded potential participants who had privacy and safety concerns given the topic.

3.5 Researcher's Positionality

I am a second-generation Arab American from a mixed ethnic background (Lebanese and Italian). My interest in this study stemmed from my own personal gendered and racialized experiences of dating apps that ranged from deeply traumatic nonconsensual experiences to the positive life-altering experience of meeting my partner. My motivation for this project also emerged from my experiences growing up and navigating dating, intimacy and relationships as a member of the Arab and SWANA diaspora, and my personal negotiations with the politics of cultural authenticity in turn [96]. I do not believe in shame, particularly shame for desiring consensual human intimacy (e.g. emotional, physical), and strongly reject notions of sexuality as related to one's purity, value or worthiness of respect.

Inspired by Shomali's application of *Arabness* in [121], this project uses the term Swananess in this paper to describe a sense of relation to what it means to be SWANA—Swananess as something that is undelineated and deeply personal, and, thus, deferred to participants' perceptions of and between the identities they hold and their online dating experiences—not interested in affirming notions of (in)authenticity, while recognizing that politics of cultural authenticity[96] and sociocultural norms play a part in participants day-to-day lives.

4 Findings

We begin by situating the ways participants⁸ think about consent in relation to dating apps and society more broadly. Then, we discuss values foundational to participants' understandings of consent—boundaries, safety, trust and kindness—detailing relevant participants' practices and attitudes. Afterwards, we discuss the power dynamics salient to participants' understandings and practices of consent before detailing their experiences and expectations of nonconsent as mediated by dating apps. We end with detailing participants' understandings of consent as communicated, yet misunderstood and unexpected on dating apps, providing insight into practices emerging from these understandings.

4.1 Situating Understandings of Consent with Dating Apps

When sharing interpersonal interactions they'd had with people they met through dating apps, participants revealed an understanding of consent that extended beyond the physical, to include things like emotional intimacy, communication styles and preferences, etc—this is particularly relevant as many types of interactions mediated by dating apps might never leave the confines of the online. For example, Amina explained how embedded consent is with her day-to-day life. She said, "I live in a way where there is consent in every way that I move....there's like the physical stuff. There's the emotional stuff there...I think about consent in a very broad way and not just related to sex. Like, obviously that's really important. But I think that conversation, consent, communication; all of those things kind of go hand in

⁸ Unless explicitly indicated otherwise, quotes are from participant interviews. When a quote has been pulled from a participants' written reflection, we end the quote with (Quote from [Name]'s written reflection).

hand." While Amina recognizes consent as important for physical intimacy, her understanding of consent extends beyond.

Participants understood consent as being part of a large sociocultural and sociotechnical conversation extending beyond dating apps, yet central to their online dating experiences—positive and negative. As a result, their nonconsensual experiences facilitated by dating apps were seen as belonging to a larger societal problem of a general lack of consent for interactions between individuals and groups, and not determined purely by dating apps themselves. For example, when making sense of receiving unwanted inappropriate messages from dating matches, Ayah explained that "I think that the apps just give...another false sense of, 'Yeah, we're already here. We already know why we're here, and therefore I don't need to have that level of decency or respect,' I think that's true across the board. I wouldn't say that that's specific to communities that I'm a part of. People just feel a lot more comfortable not treating you as a person because you are just a little Android in the phone or whatever. I think that that makes sense, just as a broad cultural phenomenon." Ayah understands a lack of consent as not unique to any particular community she is a part of. Instead, her experience of nonconsensual messages is perceived as belonging to a larger phenomenon where people may feel more comfortable enacting harm or disrespect online as opposed to in-person due to the imagined distance technology adds in interpersonal interactions. Participants, therefore, did not hold a deterministic view of their consent experiences—positive and negative—as a result of dating apps themselves. On the contrary, they understood dating apps as being a single piece within a broader understanding (or lack thereof) of consent within society that could enable (non)consent.

Some participants believed dating apps had a responsibility to be attentive to the consent-related experiences of those that used them. As Rana expressed, "I think consent should be taken more seriously by these apps. I think systems must be created to protect people from harm - I don't know what these systems would look like, but they should be implemented." While dating apps do have terms and conditions aimed to protect their users from harm, such as nonconsensual interpersonal interactions, participants didn't believe this had a large impact on individuals' actual behaviors. As Hana said, "[People] will say the most disrespectful out-of-pocket things, and that's not consent. When you sign up for these apps, you sign up to ... you're not supposed to disrespect someone, you're not supposed to use inappropriate behavior. You're supposed to abide by their guidelines. Obviously people don't read those guidelines, because they just want to sign up and all. But those are the guidelines, and if you don't consent to that and you disrespect someone...if I ever go back on these apps, I will report people more often because they're not consenting to these behaviors or they're not consenting to ...whatever [these] dating apps guidelines are." For Hana, while dating apps' may exist under policies that aim to prevent nonconsensual interactions and harm between dating matches, in practice, she believed they were agreed to as a means to an end, to be able to use the app, and not actively shaping the behaviors of users towards establishing and maintaining consent and respectful behavior. In the eyes of the participants, dating apps can and should do more to address the understandings and practices of (non)consent of those who use these platforms, through features of design and responsiveness to the behavior of their users.

Participants' understandings of consent were broad, extending beyond the physical, and situated as part of a larger sociocultural, sociotechnical conversations that implicated dating apps. While dating apps were not thought to be uniquely related to consent, they were perceived as bearing responsibility for the consent-related experiences of those who use these platforms.

4.2 Foundational Consent Values: Boundaries, Safety, Trust, and Kindness

We refer to boundaries, safety, trust and kindness as part of participants' consent values—beliefs about what are important for consent-related experiences. These four consent values were highly regarded by the participants as they made sense of their positive and negative (non)consensual interactions with others as mediated by dating apps.

4.2.1 Boundaries

The most central value for consent among participants was boundaries—participants believed they had a right to control how and in what way individuals interacted with and engaged with them. Boundaries were conceived as the limit when an interaction or engagement between people is understood as acceptable versus unacceptable. An infringement of their boundaries—physical or emotional—was understood as disrespectful and a violation of their autonomy. As Sara explained, consent is "if you express a boundary and they respect it, or if they want something from you, they ask for it instead of just assuming that they can take it." Honoring one's boundaries and asking for confirmation that something is okay prior to acting was appreciated by participants for consensual experiences and interactions to take place. Boundaries were understood as being negotiated on a case-by-case basis, of which each individual can determine for themselves, and important for respectful interpersonal relationships to exist. For example, Noor describes: "...Any person that I love [if] they tell me, "Well, this hurts me." I don't think I would ever in my right mind continue to hurt them no matter what it is... Everybody deserves to have their boundaries respected. It could seem so stupid to you, but it could mean something to someone else...I don't really know how to explain it, but I just feel like if you tell someone that, 'I don't like this,' or, 'I want to wait for this,' or, 'We got to stop talking about this,' ...Let me respect that." Noor understands that whatever somebody's boundaries are, she would do her best to respect and not cross boundaries out of love and respect for that person; understanding that to dishonor someone's boundaries can inflict pain or be dismissive of somebody's needs. Participants' value of individual, self-determined boundaries created a landscape for consent to be established or infringed upon.

4.2.1.1 Levels of Consent with Myriad Boundaries

Often, participants described that certain behavior was deemed appropriate or inappropriate on the basis of the context of when and how it emerged. Participants, like Ayah, shared sentiments where certain behavior should be "save[d]...for a different time and [required] go[ing] a little bit further into that relationship before" potentially consenting. For example, Noor shared an experience with a dating match when their interactions did not meet her expectations for what was appropriate given the time they had known each other: "I had explained to him that 'you keep calling me baby.' He called me baby mama and [said] that I was going to be his future wife, and I had not met him yet. This is just him and I, our interaction via text messages on Bumble...I don't like a guy calling me baby after not even meeting. I don't like these endearments when we're not in that state yet." For Noor, terms understood as terms of endearment were not appropriate or desired interactions with someone she had just matched with on a dating app—although these terms might be appropriate after entering a certain 'state' of the relationship. Noor highlights an understanding of levels of consent or what types of behaviors are reasonable to be consented to. Participants, like Sahaab, situate these levels and their behaviors as something that should be communicated and named, explaining that consent requires that one "asks before...[moving] on to new levels."

Participants described revoking consent to further interactions on dating apps if they experienced what they felt to be a disrespect of their boundaries or inappropriate behavior by a dating match. Zeina described an instance where a dating match blew up at her when she expressed she didn't want to do anything sexual with him via text, prompting her choice to block and report him on the platform. Hinge, She explained, "Things were getting more suggestive at a pace that I wasn't ready yet...It's that coupled with the fact of like an insistence upon meeting in person. Like a heightened suggestibility and then an insistence upon meeting in person or wanting to know more intimate details about where I lived and where I was and all this kind of stuff that, or like my schedule. I was like ... this is gonna put me in a dangerous situation and this is not something that I can give access to....for, you know, my safety and safety of people around me. I'm not going to put myself in this situation. So I ended up...blocking him. I think [I]..reported him for being weird." When Zeina's dating match began behaving in ways that exceeded her comfort levels, causing her to feel unsafe, she resorted to revoking her consent to further engage in conversation by blocking him on the platform. Similarly, Nazli described using dating app features when encountering unexpected or undesirable comments. She explained, "sometimes the comments were just really out of pocket, and then I was just like, 'All right, this is a weirdo.' So I would just unmatch with them or just ignore their message." Rude, unwanted messages from dating matches led Nazli to make judgements that then prompted actions of unmatching or not engaging with a dating match further. When participants chose to revoke consent or try to put a halt to nonconsensual interactions, they referenced five actions that directly involved features accessible in dating apps: deactivating/pausing their account, unmatching, reporting, blocking or non-response.

4.2.1.2 Boundaries as Preventative Measures for Nonconsent

Boundary setting and conversations to clarify one's boundaries were frequently described as the primary way participants tried to prevent harm from nonconsent. Participants attributed comfort with setting boundaries—both on and off dating apps— as playing a critical role in their experiences (or lack thereof) with harm or violations of their consent. Participants who perceived themselves as not experiencing nonconsensual interactions regularly credited this to their selectiveness with dating matches or comfort with communicating and acting on their boundaries. For example, Ayah explained: "My experiences are colored by the fact that I do have really good boundaries, so I'm not entertaining anybody who is bulldozing in any way over any of them. I don't know if that's the experience I would say that I think other people have. But for me, it's been pretty okay." The ability to set and maintain one's boundaries was thought of as preventing negative interactions mediated by dating apps. Similarly, other participants like Nazli referred to their discomfort or challenges with setting boundaries when making sense of negative interactions with dating matches, explaining an unwanted intimate experience as a result of them "not being able to set boundaries correctly". It is important, however, to note that the ability to set boundaries and enact agency over one's experiences and interactions is heavily complex and influenced by context and power which we discuss in section 4.4.

For some, comfort or discomfort with boundary setting was connected to their SWANAness. While some participants attributed their identities and families as the reason why they were so good at setting boundaries with dating matches, others connected cultural norms rendering dating, sex and relationships taboo as reasons for having difficulties setting boundaries, especially in physical situations. Ayah attributes her comfort with establishing boundaries to her parental figures and the messaging she received as a child growing up, "When I was younger, my mom would always make sure to be like, don't do this with boys. They're bad. And all the kind of conservative talking points [you hear] when you're a

little girl. I think those are definitely still in my head....I do have friends who didn't grow up with that sort of level of conservative parenting who don't feel as cautious....I do think that because I have that voice in my head that comes from my parental figures, I am really good about boundaries because I got a lot of practice with them because of all those conversations when I was a kid....I instinctually sort of operate as if everybody is sort of a threat to me until proven otherwise...I think of my mom's voice in my head. She used to say very specific things to me when I was younger, which is like 'Boys only want one thing, or boys will say anything to you. They're going to lie to you constantly. They're going to say what you want to hear.'" Hearing warnings from her parents about interacting with men in certain ways caused Ayah to be on alert and ready to communicate boundaries in dating situations with men.

Alternatively, other participants like Nazli attributed their difficulties setting boundaries due to the absence of talking about physical intimacy growing up, explaining: "I feel like it just brings shame out of me. For example, just meeting with someone to have physical intimacy or the fact that I'm craving that, I just felt guilty about it....So I think that shame stems from maybe just the way I was raised...Because my parents are both Iranian and they are raised with Middle Eastern culture, which is like you don't have physical intimacy until you're married, pretty much... I feel like maybe communicating about physical intimacy might be hard for me because that was just never really mentioned to me growing up. So I'm just thrown into it and I just go along with what the person says because maybe I wasn't taught that you should have conversations about setting boundaries. That was not really a conversation I had growing up with my parents." While boundaries are heavily valued by participants, establishing boundaries was understood as presenting challenges due to a general lack of communication and shame about physical intimacy that exists for some. Participants' reflections on their experiences with dating apps highlight how different comfort levels for establishing boundaries exist among the U.S. Arab and SWANA diaspora, and may be shaped by one's cultural contexts in different and potentially contradicting ways. This, in turn, provides insights into the dynamics people using these technologies may be navigating with regards to boundary setting.

Participants emphasized the crucial role of boundary setting and conversations about boundaries in preventing harm from nonconsent on dating apps, with individuals attributing their comfort or discomfort with setting boundaries to factors such as their SWANA identity, upbringing or cultural norms, revealing a complex interplay between cultural contexts and personal experiences in shaping comfort levels for establishing boundaries within the diaspora using dating apps.

4.2.1.3 Identity Shaping Consent Boundaries

Identity-Based Assumptions and Commitments of Consent Boundaries

Participants highlighted the ways that consent processes were shaped by their existence in dating contexts as Arab or SWANA women and non-binary people. Some participants discussed the ways in which they believed assumptions of consent—or lack thereof—by dating matches were made based on their religious or ethnic identity as Muslim or as SWANA⁹. Aria describes the way her identities as a Middle Eastern and Muslim individual who wears a Hijab cause individuals to make assumptions about her boundaries and the kinds of intimate behaviors she would consent to. She explained, "[They assume] things....like what you're willing to do or not, especially physically, what boundaries you're willing to

 $^{^9}$ It is important to note that Islam and Arabness or SWANAness, while not synonymous with the other, are deeply intertwined in racialization processes for the diaspora and as a result, assumptions made about Muslims can shape the interpretation of those racialized as Arab or SWANA (and vice versa) regardless of if a member of the diaspora is Muslim [110].

break as a hijabi especially." As a result, she attempted to challenge identity-based assumptions while also emphasizing to potential partners their individuality—reiterating they are acting as individuals and not as representative of some imagined homogenous group. It is clear that some individuals from the U.S. Arab/SWANA diaspora navigate and try to manage identity-based assumptions about their boundaries and behaviors they would (not) consent to—both from within and outside of their respective communities. These assumptions inform the ways they engage in intimacy with dating matches.

When Aria does choose to engage in physically intimate ways with individuals she's matched with on dating apps, her awareness of the fetishization of Middle Eastern women and orientalist discourse about Muslim women as oppressed motivates her to have a conversation about her decision to engage in intimacy, particularly if the other person does not share a Middle Eastern or Muslim background. She continued to explain, "You might be the first hijabi that they interact with, which is already crazy, cause...now I have to represent everyone...And I also don't wanna give the indication that whatever I do out of my own free will is what someone else might be comfortable with. It's not true. But I always have to think like that. Cause I'm like, how should I present myself to this person...especially if they're non-Middle Eastern or like non-Muslim? I definitely think about [fetishization of middle eastern women] a lot. I think that's why sometimes I do try to start off friendly and then kind of slowly enter into intimacy...I'm scared of feeding into the stereotype of Muslim women being oppressed and having to kind of be freed through sexual deviancy. And that's why I feel like I have to [have this conversation]..I think it just gives [muslim women] more authority about their comfort levels and things like that." Aria describes a sense of responsibility to individuals who share her identity, as a Muslim woman particularly, to help defend their agency and authority over their own boundaries and intimate behaviors by affirming her belief in individual choice and free will when making intimate decisions. Experiences like Aria's highlight a tension between believing one is acting as an individual while possibly being perceived as acting as a member of a racialized group, with certain assumptions and stereotypes, that members of the Arab and SWANA diaspora may have to navigate in dating and intimate contexts—increasing the potential burden and implications of (non)consent by members of racialized communities on dating apps.

Amina echoed a similar sense of responsibility towards consent and towards safety for those she's in community with, explaining: "As a means of protecting ourselves, we have to protect each other. So, it's like there are shared understandings. We're not gonna fucking take pictures of each other unless they're consented....So I would say there's a sense of protection of each other. It's a reality that our communities are very messy. It is very webby connection wise and like the messiness...Safety is really important. And like, that's the way that I kind of think of everything....Most marginalized communities, at the end of the day, we just wanna be safe. We just want to exist. We just wanna live our truths. and that goes the same for like any other part of my identity, too. I'm visibly Muslim, I'm Palestinian, I, you know, am working class...My parents are immigrants. I'm also queer. I'm also gender fluid....I was given it all, but like <laugh> at the end of the day. I think being able to be in community is important." Amina understands her position holding several marginalized identities and being in community with others as necessitating behaviors that protect and promote the safety of herself and others, noting this protection and safety as interconnected. Both Aria and Amina interact with others on dating apps and in dating contexts in ways where their identities are implicated for consent processes, highlighting navigating consent as individuals, as a perceived representative of an identity, as a member in community with others, etc.

Participants emphasized the impact of their Arab or SWANA identity on consent processes in dating contexts, detailing how assumptions based on their religious or ethnic identity, such as being

Muslim or Middle Eastern, influenced expectations of consent, prompting efforts to challenge stereotypes and navigate identity-related assumptions to safeguard agency and promote individual choice in intimate decisions.

Fetishizing Language Motivating Boundaries

Participants also described the ways their relationship with their SWANAness informed their conditions for consenting to interactions with a dating match, shaping their boundaries for consenting. For example, Mila described an experience with a dating match and ethnic fetishization, explaining in her written reflection "I met a guy on Hinge who I was going to hook up with. We both only wanted something casual. We messaged online for a bit and talked over the phone before I had him come to my place....I came to learn that he was in the army. Not soon after, he told me, 'I joined the army to find beautiful Middle Eastern women and I found one right here in [city]'. I kicked him out and he has not heard from me since...I learned that minority women have to tread carefully when trying to meet people in [city]. A lot of people here are here to work in some capacity for the government. In [city], the people who fetishize Middle Eastern women are often the same people who make a living off of the oppression of our people abroad. Now I'm unwilling to meet with anyone until I know where their beliefs lie, even if it's just a hook up." Mila's experience with her dating match as a SWANA women in the U.S. diaspora informed her conditions for a dating match's beliefs to be able to establish consent to meet up in-person, specifically influenced by her awareness of the racialization and fetishization of SWANAness in the Western contexts and the United State's role in military oppression abroad in the region [87,103,115]. Similarly, Ayah described not consenting to interactions with dating matches on apps based on their fetishizing messages. She said, "I have gotten a lot of comments that are just like, 'Ooh, I've always wanted to be with a Middle Eastern girl' or whatever...they'll start asking about if my family's religious or things like that, or I've had people ask if I've ever been with a man before, which is so funny. 'No, I was waiting my whole life for you.' I don't usually [respond]...I just think in this day and age, having a racial fetish is really fucking weird....It also signals to me a lack of, I guess, political shared interest. Anybody that I talk to in my life would be like, you don't do that because it's weird and it's inappropriate and it has all these ties to colonial systems and things like that." While Ayah interpreted these messages about her identity as fetishizing and rooted from colonial histories, other participants' consent process were not implicated by similar comments, which they perceived to be an interest in their SWANAness. For example, Nazli explained, "People will also just match with me and find interest in me because they're like, "Oh, you're Persian," or they'll be like, "Oh, I like Persian girls," or something like that. Or even maybe themselves, they're Iranian or Middle Eastern or whatever, so they mention that in conversation...I feel like it's gone well. People view that as a positive thing. Maybe they just like people that are ethnic or have ties to their culture." Nazli interpreted dating matches' interest in her SWANAness—her as being 'ethnic' or with a 'tie' to her culture—as positive.

Altogether, these experiences highlight how experiencing communication with identity-based fascination or fetishization (depending on the individual) as a racialized person using dating apps has implications for (non)consenting.

4.2.2 Safety, Trust and Kindness

Safety, trust and kindness were thought of as foundational necessities for interpersonal interactions to be desired and consented to by participants with their dating matches. Without feeling safe or that they could trust their dating partners, many participants shared that they would not feel

comfortable interacting with them, especially in physical intimacy. As Rana so clearly stated, "I just want general safety. I want to ensure that I won't 'get in trouble' so to speak or put my personal physical safety/information at risk just so I can get some "action", per se." The ability to interact with others in myriad ways mediated by dating apps is not deemed as worth sacrificing one's physical safety or informational privacy. Sahaab's understanding of intimacy as exchanging more than just physical touch necessitated the establishment of trust between their dating matches. They explained, "For me [a safe, compassionate interaction or relationship] means getting to know them, and being around them enough where I can feel [trust]...Sexual intimacy is a major energy exchange. That's just what it is. And to me that's serious. It's not just about pleasure... You are sharing your energy...That is serious. Let alone physical safety, and sexual health, and [the] pandemic..." To have desirable interpersonal interactions, especially the physical, trust is considered a must—and is connected to one's physical safety, sexual health and other broader health-related concerns. Participants' central concerns of establishing trust, ensuring safety and desiring kindness from their dating matches highlight how these values were central to their understandings of consent.

Valuing trust and safety meant that consenting to meeting in-person meant that those needed to be settled prior to meeting-up. As Hana explained, "People are all about 'let's go', fast-paced, and I'm like, I don't want to ... I'm not someone that's just like, 'let's just get off the app right away'... I think it's like I just don't trust you if you want to go meet right away, you haven't talked to me a single word. I don't even know who you are. That's why I always ask [for] your number and/or your Instagram because I need to make sure you're a legitimate person." In-person dates were understood by some participants to require additional logistics in order to be appropriate, feel safe and be consented to. Laval's interaction with a dating match who wanted to meet up with her in person contradicted her expectations for what was required to have interaction off the dating apps: "I told him we should get to know each other better before seeing each other since we hadn't known each other for that long. Also, he came off as super religious and that's exactly what he preaches, yet he's willing to meet up with a girl he's never met before without her father present? (Quote from Layal's written reflection)" Being able to give consent to meeting up in-person was not possible due to Layal's conditions for consent not being met (e.g. knowing somebody more deeply, having a father present). Whether it be a sense that certain values had been established or logistical conditions achieved, participants revealed expectations for consent to be granted to behaviors and interactions.

Participants held an understanding that time was necessary for safety and trust to be established. When interacting with others on dating apps as well as in dating contexts more broadly, participants understood dating matches as being on their best behavior early on—early impressions and interactions as revealing a potential dating partner's true character and informing whether or not they should continue to interact with them or if later unwanted behavior was foreshadowed. As Ayah said, "I'm just very cautious to remember that anybody can say anything about themselves on an app and it doesn't necessarily mean that it's true, and so you just have to move through the world [cautiously]." The awareness that apps allow individuals to present curated images of themselves necessitates caution and allowing time and space for the truth—such as the truth of one's behavioral norms—to reveal itself. Ameerah connected the way men behaved early on within a dating relationship, including interactions on dating apps, to behavior that would unfold in the future. This belief prompted her to enforce boundaries and expectations with dating matches, especially when they acted in ways she did not like. She explained, "It sounds bad, but you really do train guys like dogs. You train them. The way you let them treat you in the beginning is how they're going to treat you for the rest of your life if it lasts that long. So I'm very adamant in the beginning

about, 'This is not going to work.' So when those guys were saying those [inappropriate] things, I was quick to shut it down. Because this isn't how it's going to be with me. [If] I'm already uncomfortable or if I already don't like how things are going, I'm going to say something. Because I'm really big on that. I know that that's true. If anything is true about guys, if guys have one thing or anything, it's that they have the audacity and they have to be trained." Participants believed that one's behavior on dating apps and early on in an interpersonal relationship reflected and hinted at their behavior in the future—this awareness informed their reactions to unwanted behaviors and interactions by prompting them to try and put an end to that behavior or that connection early on before any escalation or anticipated harm could occur.

All in all, safety, trust, and kindness were identified as crucial prerequisites for participants to consent to interpersonal interactions with dating matches, with participants emphasizing the significance of feeling safe and trusting partners for feeling comfortable, particularly in physical intimacy. Participants emphasized the time and space needed to establish this sense of trust and safety, as well as develop a feel for the genuine kindness of their dating match.

4.3 Navigating Power Dynamics: Transactions and Negotiations of Consent in Dating App Interactions

Consensual experiences between participants and their dating matches were understood as an exchange or a negotiation of power. For example, Zeina highlighted the ways online dating felt very transactional, at one point saying that "[online dating] is kind of like online shopping", echoing what scholars refer to as relationshopping [60]. Zeina continued, "The power is in your hands to decide whether or not you like the person that you're talking to. You have all these routes and methods of refusing access to you, from the person that you matched with; you can block them, you can report them, you can unmatch with them." In this way, Zeina envisions dating apps as spaces where individuals can interact with each other, determine whether or not they are enjoying the interactions and choose to enact their power to decide to continue exchange or halt interaction. Beyond interactions within the apps themselves, Nazli discussed consent as a type of negotiation where individuals interact with different levels of power. She explained, "Whoever is initiating contact and taking charge in the situation would probably ask the question first, or even sometimes, both parties are just on the same level and want to talk about it." Nazli envisions consensual interactions being between individuals who are on equal levels of power or where one 'takes charge' and holds the power of leading a situation. Interpersonal interactions and conversations seeking consent were also described as something that could impact one's sense of power over themselves. Aria shared feeling like she retained power after an experience with a dating match where explicit conversations regarding consent occurred, "When he dropped me off, he asked if he could kiss me and I said yes....Anyway, this was a great first date experience because we actually talked about what we wanted. I liked that I was upfront about what I wanted...and it made me feel like I had some sort of power of my relationships and decision-making. (Quote from Aria's written reflection)" In this example, through Aria having space to communicate her wants for physical intimacy, she was able to enact power over her decisions with a dating match. These experiences reveal interactions mediated by dating apps as spaces where transactions or negotiations of consent and thus, power over one's being, are implicated.

4.3.1 Consent Scripts: Uncertainty from Gendered Roles of Pursuer and Recipient

Consent scripts, shared understandings of how to obtain or express consent, were widely understood as gendered but also resulting in ambiguities for one's role in establishing consent, highlighting the tensions of consent scripts hinging on a gendered binary of active pursuer & passive recipient [89,139]. Some participants held the traditional belief [139] that pursuing is a man's role, and women are recipients. For example, Nazli envisioned herself in the role of 'the player', taking on a role she understands as typically assumed by men, when she decided to use Tinder for hooking up; particularly after she felt men were only pursuing her for one thing: a sexual transaction. She explained, "In the past,...I was like, 'Wow, I feel used for just hookups by that guy or whatever,' or 'He was just using me for sex instead of caring about who I am.' Once I realized that, I was like, 'You know what? Now I can do that with guys. I can just meet up with them because I'm interested in having a one-night stand with them or to smoke with them or whatever.' So I became the player." Nazli positions men as the pursuer of interactions in dating contexts, and believes she is assuming their role as the 'player' by using dating apps to establish consent to in-person meet ups.

The tension in gendered consent scripts was most noticeable when some participants described who was positioned as 'leading' or having 'control' in interactions with dating matches, particularly when the interactions were between women and/or non-binary people. For example, Sirine mentioned that because they were interacting with a woman on a dating app, it was unclear to them who was supposed to make the first move. They explained, "It was cool to get to know her a bit, it made me nervous [because] we were both women, so I was like, who makes the first move? I didn't want to be creepy. (Quote from Sirine's written reflection)" Because Sirine was speaking with another woman, they were unsure who should initiate the interaction. For participants who internalized gendered consent scripts, their role in establishing consensual interactions on dating apps remained unclear. This echoes findings by Metz who argues that at times, queer scripts can reflect traditional heteronormative scripts where the gender binary and gender expectations are salient [89].

Queer participants contrasted experiences they've had with establishing consent within queer dating apps (e.g. Lex, Her) to their experiences in more heteronormative contexts (e.g. Tinder, Bumble). Amina understands acting without consent as "systemic, toxic masculine, patriarchal shit, although the queer community sometimes leans into that." Queerness was understood largely as bringing community norms that were more open with talking about intimacy, boundaries and establishing clear expectations. Amina continued to reflect on what she understood as community norms within those related by their queerness, "I think kink is, you know, very present in queer community. So, like conversations around...what are people into, what do people not like?...I mean there are reasons why labels exist; top, bottom, verses, dom, like...they exist to communicate, 'okay, this is, you know, a way that I'm consenting." Norms and expectations of consent embedded in relationality in queer contexts were understood as translating to dating apps and conversations for establishing consent. This caused some participants to feel safer in queer-specific dating apps as opposed to more heterosexual contexts. Sahaab explained why she did not expect to receive unsolicited nude photos in dating apps like Lex as opposed to Tinder, sharing that, "[Queer dating apps] just feel safer.... I think there's a lot more consent. Even if somebody is just out here like, "...I look really hot right now, I wanna send people nudes...message me..." that is consent, right? I think there is a lot more consent in that way. Can I ask versus [not]." Sahaab expected to encounter greater amounts of consent and conversations surrounding consent on queer dating apps.

Some participants—heterosexual and not—specifically referenced Bumble as a dating app that subverted power dynamics often present in dating due to its design requiring women to be the ones to send the first message—by reversing consent scripts, women are envisioned as being empowered. As Zeina explained, "I think there's a reason why Bumbles sells itself as being the feminist dating app... because, um, it puts women at the forefront and it also puts the decision making and the... how can I say it? The onus on the woman to do the proverbial chasing. You know?" By putting women on the platform in the position to message first, if interested in dating matches that are men, they are perceived as being given leadership over their interactions with a dating match. However, by portraying empowerment along gendered lines in this context, the reversal of consent scripts as female empowerment works to reinforce the gender binary and gendered expectations in dating apps' design.

Gendered understandings of consent scripts influenced participants' perceived roles for establishing consent, with some adhering to traditional belief of active pursuer (men) and passive recipients (women); as a result, uncertainty emerged for interactions between women and/or non-binary individuals. Queer participants contrasted their experiences in queer dating apps with more heteronormative contexts, highlighting increased feelings of safety and expectations for consent in queer spaces. Participants also reference Bumble as a platform subverting traditional power dynamics by requiring women to send the first message, potentially empowering women but also reinforcing gendered expectations in its design.

4.3.2 Gendered Power Dynamics and Situated Agency

Some participants spoke of consent-related experiences as something they could always retain agency over with the acknowledgment that consent to certain interactions may shift over time and across space, whereas others understood and described experiences of barriers to enacting agency over their interpersonal interactions. Zeina explained that "[Consent] has to be comfortable. But at the same time there's...this ability, no matter what's going on, to abandon the connection. Like no matter where you're at...When you're online dating,...you always have the opportunity to back out for the most part, unless like someone [is] particularly creepy or crafty. You pretty much always have the opportunity to avoid overt, huge contact with the other person." She continued to describe how she feels when this value of being able to change one's mind is not respected by a dating match: "Even though I decide that I wanna practice autonomy and I don't wanna continue talking to this person, um, the fact that they can violate that is scary." The ability to change one's mind and make a decision to 'back out' from interacting was valued deeply by Zeina, but she had concerns that a person would violate that decision such as by continuing to message, finding her and moving interactions to another platform, or finding and locating her offline. In other words, Zeina was concerned the agency she enacts when choosing to speak or not with a dating match would be overpowered. Unless someone was persistent in violating her boundaries. she believed she'd be able to minimize or avoid unwanted contact with a dating match through unmatching, blocking, and reporting within the platform.

Participants described instances where their initial consent to certain behaviors caused them to feel like locked in when dating matches behaved in ways exceeding their expectations or understanding of what they had consented to. This prompted some, like Sana, to refrain from being explicit on her profile about what she was looking for. She explained, "A few years ago I would say...if you did define what you were looking for, I want [a] relationship out of this or I want a date out of this, then I would feel more obligated that if someone then was interested in me, that then I would actually have to go through and not necessarily have to be in a relationship, but because that's what I stated and this person is interested in

me, then they're going to expect me to want to reciprocate." For Sana, expressing her dating goals on her profile caused her to feel as if she needed to follow through certain behaviors with a dating match regardless of if she herself was interested. In this way, Sana's initially stated dating goals were perceived to hold power over her present, despite the ways that what a person wants might shift depending on the person, time, and context.

Participants also described behaviors or reactions to unwanted interactions that were informed by an awareness that harm or discomfort might be possible if they were to revoke or abruptly alter their previously exchanged or assumed consent. It appeared that when participants chose to enact agency regarding the (non)consent to interactions with dating matches, they paid consideration to the possible responses to this agency by their dating matches; concerns for experiencing or inflicting harm or discomfort from or on a dating match. Ayah shared an experience where a conversation with an individual she'd matched with on a dating app made her deeply uncomfortable and crossed her boundaries, despite him asking for her consent to have a conversation about sexual intimacy, explaining "...He initially asked me if it was OK for him to tell me his sexual interests in context of what he's searching for and so I said ves it was ok, and then he just got real weird. I thought he would tell me some like fetish or something but he just went on and on about how he wanted to share me with other men, and then kept mentioning the things he wanted when we date. I felt like he was coming on way too strong and also inappropriate so I tried to let him know gently by decreasing the frequency in which I responded, even though I should've just unmatched. Eventually I stopped responding and he unmatched me... I suppose when he initially asked consent to tell me what he was looking for I thought that was fine because it's different then sending unsolicited messages of that sort?...But looking back I think I learned that...I didn't need to say ves just because he asked nicely. (Quote from Ayah's written reflection)" Ayah initially consented to the conversation with certain expectations of what it means to talk to somebody on a dating app about one's sexual interests, however, this individual behaved in ways contradicting her expectations, forcing her to signal discomfort by decreasing how much she engaged with the conversation. Ayah continued to explain that his behavior led to questioning "whether or not he was safe, and then that's what made me want to just proceed very cautiously. It's like I could still be kind so as to not potentially trigger anything else that might be concerning." In this experience, Ayah chose to gently disengage from interactions with her dating match to signal disinterest while mitigating potentially encountering harm and a threat to her safety. Despite being made to feel uncomfortable and violated, Ayah was pushed to continue interacting in ways she understood as not triggering a reaction from her dating match. Within this example, Ayah's agency to disengage from a dating match was situated within a context where she perceived herself as potentially endangered by her dating match's reaction to her rejection—in this way, her dating match held some power while Ayah simultaneously acted on her own.

The potential for triggering harm from men was a fear some participants held in their dating experiences as mediated by dating apps. Ameerah shared an experience where she had repeatedly communicated with a dating match that she didn't appreciate him sending dirty jokes to her and when he didn't respect her wants by stopping that behavior, decided to end the connection, explaining "I feel that I made the right decision ending things because...he was doing things that although I told him I didn't like, he didn't stop doing those things. (Quote from Ameerah's written reflection)" She explained feeling relieved when he didn't push back after the last time she decided to set her boundaries, explaining "the third time he did it and I was fed up, ...So I just was like, 'This isn't working. You are blatantly not listening to anything I'm saying and if that's how it's going to be from right now, then I just don't care for this. You keep talking about this kind of stuff and although it might be funny to you, it's not funny to me,

and I know you're trying to break the ice or however you are, but it's not my vibe.' He was understanding with that, which I was so thankful for because I don't know how to handle when guys are upset. I don't know what they're going to do. It was scary, it wasn't that scary, but it was scary." Similar to Ayah who understood her reactions to a man's unwanted behavior may lead to potentials for harm, Ameerah felt fear for upsetting her dating match due to the unknown of how they'd respond to her setting a boundary. Uncertainty and potentials for harm from men's reactions to rejection or the setting of boundaries, as mediated by dating apps, is part of the equation participants' described when managing and negotiating consent. It provides the context in which participants' agency over their interpersonal interactions were situated. We discuss how this uncertainty of harm was often referenced in very gendered ways in more detail in 4.5.1.

During interviews and in their reflections, participants repeatedly shared experiences where dating matches challenged their enforcement or request of establishing a boundary via technology's features, especially when they wished to end a connection with a dating match or revoke consent to continue interacting. Ameerah described an experience where a dating match she'd met through Baklava "was sort of not taking no for an answer" when she expressed not being interested in continuing their connection, explaining how this made it difficult for her to end things with him. She explained, "He sent me a five and a half minute voice note of him talking and I was like, 'Okay.' And then it was starting to become an argument or something. It was starting to get heated and...I was like, 'This isn't going to work.' So he was typing and I just blocked his number and then I took him off everything. I was like, 'Why are you getting this upset? We've only talked for a week.'...I think he wanted to know more, but it really wasn't that deep or that serious for it to be having the full-blown dissection of our seven-day relationship or whatever you want to call it." Ameerah's dating match used multiple forms of computer-mediated communication (e.g. voice notes, text) to challenge her wish to stop talking with him, drawing power from multiple sources to challenge Ameerah's boundary. In some instances, the affordances of dating apps, like blocking, was sufficient to stop these nonconsensual interactions after they had occurred.

Participants shared experiences highlighting limitations to stopping unwanted contact from dating matches who persist. For example, Noor shared an experience of sustained unwanted contact from a former dating match, sharing: "So it honestly came out of the blue, him contacting me, and I had told him prior, 'let's just go our separate ways and just stop contacting me.' So I really did not think he would be back in my life. And it was out of the blue, "Hey." When I ignored it, he called me. When I ignored those phone calls, he kept on sending messages. So, for a couple of days, I just ignored it... I don't believe in ghosting, but in this instance, we have already spoken. We've already said that we're going to go our separate ways, so my conscience is clear. I'm not hurting you in the sense that I'm just keeping you wandering. We already talked. So after a little bit, he kept on messaging me to a point where I couldn't even look at my phone. I couldn't look at any messages without it popping or him calling me...So the last call, I decided to just send him a message, "Stop." And when he didn't and he continued to call, I'm like, 'okay, well, I know with police they will only interfere if you have told them to stop three times.' So I'm like, okay, let me send another message, 'stop.' And he continued to call at least 25 times. Then I sent another message, 'stop', and then I sent a voice message saying, 'I'm warning you, I'm going to go to the police if you don't stop.' That's when I blocked him and it led him to sending me messages over so many different numbers. I would say at least 15 to 20 different numbers. And I'm like, how is he changing his number so quickly or what app is he using? That's when I went to the police and they were awful. They were so mean. I know the female officer tried to call him and he didn't pick up. And when I went back to the police station, the guy was so, 'Oh, well, if that happened to me, I would be upset, but just block him.'

And I'm like, 'okay, I did block him, but there's several different messages.' They didn't really care. And that's when I just said, 'Okay, I will change my number.'" Despite clearly communicating disinterest, not engaging with attempts at contacting her, blocking, attempting to seek support from law enforcement, etc., Noor was left to her own devices—literally—to manage this harassment and violation of consent from a dating match; forced to disrupt her life by changing her phone number as a last ditch effort to protect her peace. While technology's features that help to establish boundaries may prevent nonconsensual interactions, they are not sufficient or end-all solutions.

Participants described how power or perceived lack of power influenced one's enactment of agency with regard to consent in dating apps. While some participants valued the ability to change their minds and disengage from interpersonal interactions, others faced challenges in asserting boundaries, experiencing instances where initial consent led to feeling locked in or fear of harm delayed revoking consent. Concerns about upsetting dating matches, especially men, and the fear of triggering harmful reactions influenced participants' decisions in managing consent. Furthermore, experiences of dating matches' persisting and participants facing challenges in ending connections underscored the limitations in relying solely on technology's features, highlighting the need for multifaceted strategies to address nonconsensual interactions.

4.3.3 Reputational Risks for Dating App Use in the Diaspora

Gender and identity intertwined as participants described a gendered double standard for using dating apps that raises the stakes for their use of such apps. The valuation of one's reputation in Arab and SWANA communities was central to some participants' concerns regarding context collapse, specifically with regards to nonconsensual sharing of information. One concern shared by several participants, and experienced by one, was the sharing of their dating profile with others off the apps and without their consent, such as through somebody screenshotting their profile and sharing it with a family member. Rana explained concerns of her dating app profile being shared with others: "I just don't want my friends and family back home to see what I put on the app. That's it really...I think photos are a big thing, people being able to screenshot/share a profile if someone comes across it...I fear it would be shared and I would face familial or community repercussions." Participants recognized the consequences of nonconsensual sharing of information regarding their dating experiences were gendered and posed higher risks to them as women, queer or non-binary members of the Arab and SWANA diaspora.

For some queer participants, like Rana, reputational harm brought additional concerns. Rana explained: "Being openly queer can lead to disownment, ridicule, and rejection from the ethnic community at large. I've known a few cases of this occurring and it's heartbreaking, I don't want that to happen to me. Because of this I am so much more guarded and cautious about revealing things about myself to potential partners." For Rana, experiencing harm within her community due to her queerness caused her to be mindful of what information people had access to about her. Amina articulated her experience with queerness and efforts to remain anonymous on dating apps, contrasting the gendered nature of shame to the sense of safety she felt on queer dating platforms. Amina explained: "I think coming into my queerness, having a photo, trying to be as anonymous as possible. You know, those are elements that exist with the queer apps as I use them. However, I think men feel less safe to me, right? So even if, you know, my mom's friend's son is on MuzzMatch and he sees my [profile], the reality is him and all his buddies are on the apps. Right? Like, they talk shit. There is more shame there.... the reality is [shame]'s gendered." Amina recognizes that the shame she'd uniquely experience if anonymity was lost

or profile shared without her consent was gendered, causing her to feel safer on queer dating apps with increased anonymity as opposed to dating apps with more risk for context collapse.

The potential for being shamed for being on dating apps was deeply upsetting to participants like Aria who felt tensions between her position in the U.S. Arab and SWANA diaspora when using dating apps. She explained, "We're just all here...to find love. And I think it really depresses me that people just criminalize, especially in our own communities, that when we try to seek out of the norm of kind of arranged relationships by our families that we're criminalized with that. It's very taboo, etc....We are American. Like we are in American society and like dating is...in American culture....If my parents saw my dating profile, the first thing they would say is, 'Oh, we should have stayed in Yemen. Like, look what happened here.' For them, American is very synonymous with white...For them...they don't view us as American. Whereas like, I grew up here and this is, this is the culture we were raised in ... So [to] me, dating shouldn't be a big deal as it is, but because it differs with Arab culture and my own Yemeni culture, then it would, it's seen as taboo and wrong for sure...I think for me...it's impacted in the way that I'm very secretive honestly. I shouldn't feel guilty about wanting to find love and wanting to have a partner and wanting a relationship. It's just the culture has made me guilty for wanting those things." Aria situates her guilt that emerges when using dating apps within what she understands as cultural diasporic norms. The potential for an individual to screenshot one's dating profile and share that with others (e.g. family, friends) was identified as a risk for the reputation of women and gueer members of the Arab and SWANA diaspora, due to several factors: assumptions of reasons for using the apps, a gendered double-standard around dating and relationships, as well as consequences for rejecting heteropatriarchal norms.

Participants, like Zeina, explained how the assumptions for using a dating app implicated their reputation and increases concerns for being on these platforms: "[Dating apps are] much more like you're here and you're on this app to do something as opposed to someone potentially seeing you in public...that could be misconstrued. I could be like, 'Well yeah, we were just doing something for work or we were just studying' and I could say it that way. But like, if you're on a dating app, you're on a dating app, you're not doing anything else. [The assumption is that you're] feltene, like you're kind of loose or you're promiscuous or you're boy crazy, all this kind of stuff... I think also when I think about my reputation,...I think I have a reputation as someone who's very studious, someone who's very hardworking....especially being here where reputation is everything, I think that reputation would be marred by people knowing that I was on an app." By being seen on a dating app, Zeina was acutely aware of the reputational harm that could ensue due to assumptions that contradict expectations of cultural authenticity and the archetype of a 'good Arab girl' [94]. To manage these concerns of reputational harm and its consequences, participants frequently chose to delete or pause their accounts on dating apps when concerned of being seen by someone they suspected might pose a risk to their privacy. As Aria explained, "I mostly pause the app so it's not deleting, it just pauses it and then you can unpause it..."

Participants highlighted the gendered double standard within their communities with regard to dating and relationships, emphasizing concerns about nonconsensual sharing of information and reputational harm, and the consequences of assumptions made about their dating app use. Experiences of shame and guilt, secrecy, and the need to manage reputational concerns underscore the complex intersections of gender, identity, and cultural expectations in participants' usage of dating apps.

4.4 Understandings of Consent as Communicated, Unexpected and Misunderstood, *and* its Emerging Practices

4.4.1 Communications' Role in Consent and its Practices

Whether or not direct and explicit communication about one's wants and desires occurred in their own consent-related experiences, across the board, participants agreed that direct communication should be a part of consent processes. Communication was thought of as a way to prevent misunderstandings between participants and their dating matches, with the ability to impact future decisions or choices made within the relationship. For example, Naima explained that she directly communicates when she'd like to shift from interacting on dating apps to other forms of computer-mediated communication (e.g. video call) or to an in-person date so that "people don't misinterpret things and in the long run there are other decisions or choices in communication that are made...". Direct and explicit communication was perceived as something that could prevent conflict in an interpersonal relationship. Communicating with a dating match about what one wants was deemed necessary for establishing consent, as explained by Aria who said, "I think that you definitely should have a conversation about what you like, what you're comfortable with and stuff. And then also like any safe words, things like that, verbally saying [things] like, 'oh, I would like to do this and I'm not comfortable with doing this.'" Relying on indirect signals through assumptions was thought of as antithetical for consent, so participants largely advocated for verbal and explicit communication. As Sana explains "consent has to be negotiated. It should never be assumed. It has to be explicitly given, never, ever, ever assume[d]."

What does a "Match" communicate?

Matching with an individual was understood as communicating a start to consent processes between a person and their dating match. Participants were pretty resolved in their understanding of what they were consenting to when choosing to match with somebody on dating apps. Some participants perceived matching with somebody as consenting to conversation. For Samia, she made sense of consent and dating apps through the metaphor of a door, explaining "I was on the subway the other day and this guy literally started chatting up the woman next to him and asked for her number. To me that's very much opening a door that is shut and the invitation has not been there. There's no signal that's saving I'm open to having these conversations. Whereas [on] the dating app, the door is open.. You're on a dating app ostensibly to be in a relationship. So taking the steps to initiate the beginnings of or...testing the waters...is there merely by the nature of being on the app. Whereas riding the train or going to a bar or going to a bookstore, the presence is not itself an open invitation to initiate this conversation. The door's open for conversation....Then from that you determine what other doors are open if you wanna continue with the metaphor. But like it's conversation. That is all that is open." Samia interprets the presence of being on a dating app as being open to a conversation and initial interaction with a dating match, where future consent to additional interactions and the type of interaction can then take place. Other participants also saw choosing to match or maintain a match with somebody as consenting for them to have continued access to the information they've chosen to make available on their dating profiles. For example, Aria explained one of the reasons she may unmatch with a dating match, "I've talked to friends about this and they just keep...the [match]. So like if you scroll through their [app], they have a hundred matches...Whereas like mine, I'll probably have five people that I'm talking to and then maybe two that I haven't replied to. But like, if I don't like you,...I don't want 'em to have access to my profile. Because you

could go back and see the person's profile. So I'm like, if I clearly am not gonna talk to that person, I don't want 'em to have my pictures." By matching with a person on a dating app, Aria understands she is consenting to her dating match being able to view her profile and see the photos and information in it.

None of the participants believed that a dating match was a signal of consenting to anything beyond those two things (e.g. potential conversation, access to profile), *especially* not consenting to physical intimacy. This belief differs drastically from [143] whose cisgender heterosexual male participants, those positioned with the most power in a heteropatriarchal society, interpreted matching on dating apps as signaling consent to sex. Some participants were aware, however, that others on dating apps had different expectations if they were to match. As Nazli explained, "Some people that would reach out first [on the dating app], if they would say some pickup line that's just trying to get attention to their profile, and if I would respond, they would basically just have an expectation that I would hang out with them or owe them maybe my Snapchat or my phone number, even though it's like, No, we should still just have conversation and see if this person is even a safe person to have contact with that....Some people would just expect to get your phone number right away just because they matched with you instead of just trying to make conversation." Nazli and her dating match had different behavioral expectations for what should follow when a match occurs on a dating app. Participants did not believe that simply matching with a dating match meant they owed consent to further interactions—on- and off- the apps.

Participants perceive matching on dating apps as communicating a starting the consent process, with some viewing it as consenting to conversation and continued access to profile information.; However, they unanimously reject the idea that matching implies consent to anything beyond these aspects. Additionally, some participants acknowledge varying expectations among users regarding the implications of matching.

Communicating Consent Practices

Participants envision dating applications as spaces containing features that mediate and establish communication of consent to interpersonal interactions—online and offline. And yet, participants also understood dating apps as obscuring information deemed useful by participants for sensing a dating match's intentions or goals—and thus, veiling signals or starting points for establishing consent or mitigating risk of nonconsent. As a result, participants relied on their own interpretation of signals from their dating matches to inform reciprocal interest in an interaction (e.g. romantic, friendly). Body language was also described as a source for gauging mutual interest between a participant and their dating match, something absent within a dating app's interface. For example, Zeina described needing to make sense of a dating match based on the limited information available to her. She explained, "in-person...you can catch up on little things that a person says or the way that they look at you or their body language and things like that. And then you could sort of extrapolate those things and think like, 'Oh, maybe they do like me, maybe they don't like me.' But online it demands a certain level of you being...emotionally intelligent... I have to rely on what's on the screen and what's [on] my phone and say [things] like, 'Okay, I like you and I want to take this further. Do you want do this?" The interactions carried out on dating apps—such as through messaging a dating match—where body language was largely absent necessitated the direct and explicit communication of one's wants and intentions.

Participants' sometimes initiated these conversations through the use of specific app features. Participants referred to ways information about one's dating intentions or goals were often viewable on a dating match's profile—either through a profile tag or in a text bio. This was perceived by some as a way to begin establishing an understanding of what a dating match may consent to, or a justification for not

needing to seek out further clarity by taking the information provided in these features at face value. For example, Aria described these features as giving a glimpse to what a dating match may want, and using them as a starting point for clarifying these wants prior to meeting up with anyone. Aria explained that "I'm assuming you've seen the feature [where] you could show what you're looking for. It's like...short term fun...et cetera, whatever, And I think that feature lets vou know, oh this is what the person kind of wants. But really, also, I look for what is in their bio. [For consent], you do have to sometimes look at someone's bio for that and see...some people openly just say open for hookups and things like that. They'll tell you exactly what they want. Whereas other people will say nothing and then you have to talk to them, basically 'what are you looking for?'...I'll ask them 'What are you looking for?' And they'll say, 'Oh, casual or something.' And I'd be like, 'Can you define casual? Do you mean just hookups or do you want to date? Like, what's the plan here?" While making sense of the information publicly available to her about dating matches through their profiles, Aria understands this information as providing signals of what goals or interactions may be consented to by the dating match, but does not envision them sufficient for bypassing a conversation or as binding. Reflected in this example is the understanding that words used to convey intentions and goals may mean different things to different people, and therefore still necessitated further conversation to make sure clarity was reached. Alternatively, some participants saw this information in one's profile as eliminating the need for a potentially awkward conversation around dating intentions, such as Hana who expressed, "Whenever I see someone looking for something short term, [I'm] like, "Nope, X." I know what you're doing on this app. Or someone's [it says] like, monogamy, long-term relationship, ...open to short.... I appreciate how [dating apps have] included that feature [What are you looking for?] because it eliminates having to have that conversation. Sometimes it's awkward..." Whereas some participants engaged with the presence of one's stated goals on a dating app profile as a hint at potential interactions one might consent to or opportunity to clarify intentions and expectations, others took the presence of one's goals as replacing the need to have that conversation when matching on the app.

Participants discussed the ways that consent was frequently not discussed explicitly prior to meeting up with a dating match in person, and if it did come up explicitly in conversation, frequently occurred once physical intimacy had already begun. For example, Nazli talked about an instance where a dating match she'd met up with began to initiate physical intimacy before establishing consent. She explained, "There was no conversation over text about physical intimacy. I'm sure maybe there was flirting, but no actual conversation about that. And then, the moments leading up to it, we were just kissing, and then he was getting ready to undress himself, and I was just like, 'Oh, what are we doing?' And he was like, 'Oh, we may as well have sex.' And at first I was like, 'Oh, actually, I don't want to right now.' And then, it led to me just giving him head, and then he was like, 'At this point, you may as well just have sex.' And I was just like, 'Okay, I guess.' ... But it was just a very in-the-moment decision. We weren't actually having a conversation about it even before kissing. It was just like, 'Oh, okay. Let's do it now.' (Quote from Nazli's written reflection)" In this example, Nazli began a conversation to clarify the situation with her dating match after sensing a shift in his behavior and perceiving signals she interpreted as her dating match expecting levels of intimacy she did not want to participate in. Some participants, like Sahaab, explained that they tend to avoid having conversations about consent on the app, and instead prefer to use the app as a starting point to decide whether to even meet up in-person when consent may seem more relevant for them to have a conversation about—they recognized conversations to establish consent as a form of labor they didn't want to expend casually. They explained, "It's determining do I want to even have the conversation [about consent] with them. So it's like, 'Do I want to waste time?' ...I

don't want to invest too much, until I feel like, 'Okay, this seems like a decent person.'" Conversations to establish consent, were thus, understood as being reserved for those Sahaab perceived as being worth investing energy and time into, something they'd be able to determine once they had met in-person. Participants' experiences illuminate how the conversation of consent may not occur until in-person due to the "in-the-moment" shifts that are perceived to warrant an explicit conversation (e.g. escalation in physical intimacy), or be reserved for when a certain benchmark of interest in further interacting with a dating match is reached. This produces a tension across participants who all cited direct and explicit communication as central to consensual experiences, yet experienced and/or practiced communication that was obscure, context-dependent (e.g. time, place), or conditional.

Participants saw dating apps as both mediating and hindering the communication of consent in interpersonal interactions, relying on their interpretation of signals and specific app features to gauge mutual interest and establish consent; however, explicit discussions about consent often arise in-person or with a wish to hold off communication until deemed necessary, highlighting a tension between the perceived importance of clear communication and the practical challenges in initiating such discussions on dating apps.

4.4.2 Experiencing and Expecting Nonconsent: Understanding and Responding to an Absence of Consent on Dating Apps

Recognizing nonconsensual experiences beyond the physical opens up space to address the myriad dimensions where (non)consent plays a pivotal role in one's undesirable and/or harmful interactions with others as mediated by dating apps. Participants mentioned several types of nonconsensual experiences within the dating apps themselves and other computer-mediated communication technologies. For example, Nazli shared an experience where a photo was taken without her consent by a dating match. She said: "I had messaged this person on Hinge, and we had each other's socials already. So after I had talked to him on Hinge, I was just like, 'Okay, let me talk to you over the phone.' And we decided to meet up, and we were just watching a movie and everything was fine. And then, we ended up hooking up. And I just didn't really think much of it, but he took a picture of me after it happened. And I was clothed when he took a picture of me, but it was right after the fact. And he sent it to someone else that I had known through my high school and was like, 'Oh, I just had sex with [Name].' And that was really weird to me. So I wish that experience hadn't happened." She continued to say, "That was a trust issue right there." Nazli's sense of trust in her dating match was broken when he chose to share a photo of her in a vulnerable position via Snapchat without her consent. Participants also shared experiences with deception. Mila shared a dangerous instance with a dishonest dating match, explaining: "A few years ago, I realized I had never really explored my sexuality, and I decided to match with a woman for a casual hook up... When I got to the bar I let her know I was there, and then I received a message from her that she had just been called in for work at the hospital. About a minute later, a guy approached me in the spot that the woman and I had decided to meet. He said something along the lines of 'It looks like we're both free tonight' and asked me to come back to his place. I said no, and he responded by telling me what he intended to do with me, during which he used the same exact words that the woman had messaged me online. At this point I realized that the Tinder profile was fake and that this guy had actually been the person I was messaging....I remember being really angry and calling the bar to see if they have any security cameras outside, and they didn't. The profile also unmatched me that same night. This was clearly deliberately planned and done in a way where there would be no evidence. (Quote from Mila's written reflection)" Mila had consented to an in-person meet up to explore her sexuality with

somebody she thought was a woman based on their profile, however, she was deceived and left in a precarious position—what she had consented to had not happened— and a sense of being unable to have evidence that the incident had occurred. It is important to consider experiences of nonconsent beyond physicality to be able to attend to the many dimensions where (non)consent may be central to one's unwanted and/or harmful interactions with others as mediated by technology.

Perceived (Gendered) Risks in Dating App Interactions

Participants believed engaging on dating apps was a vulnerability, essentially with an understanding that signing up for dating apps was signing up for some risk and discomfort. Sana described a conversation with a dating match, after she rejected his physical advances, who seemed confused as to why she was on Tinder if she wasn't wanting to get physical with him. She explained feeling like, "Maybe I'm in the wrong place. So, I think that's how I made sense of it is that, 'Oh, this is probably what I signed up for when I signed up for [Tinder], because this is what people associate with this app." Sana had a sense that signing up could potentially lead to discomfort, particularly given others' expectations for her as shaped by dating apps' norms or expectations. In this instance, Sana's disinterest in physical intimacy when meeting with her male Tinder date mismatched with her date's expectations for what it means to meet through the platform, leading to non consensual physical contact. Leyla shared an experience that began on Tinder and ended on Instagram that heightened her privacy and safety concerns with regards to dating apps, explaining "as I was swiping on the apps, I saw someone who appeared Middle Eastern which was intriguing at first however, I did not find him attractive. Therefore I decided to swipe left, however, this person proceeded to follow me on instagram and message me repeatedly after I expressed disinterest. It made me really uncomfortable to know that this person was able to find my social media and contact me as a result of a dating app....Looking back on this experience I think that this interaction made me realize just how vulnerable being on these apps is. You basically release so much information about yourself to people that you do not get to really control, and with the access to social media platforms it is really easy to be found. It made me feel worried about my privacy and safety. (Quote from Leyla's written reflection)" Just by having a profile on a dating app, Leyla believes her privacy and safety are at risk, made possible by being visible to men on the platform and dating apps' potential interoperability with other social media channels. These examples demonstrate the ways that participants expected nonconsensual—unwanted, non permitted, disrespectful—interactions mediated by dating apps.

As a result of these expectations for harm on dating apps, participants described entering dating app contexts on the defensive. Sana explained: "[Dating apps are] something that's supposed to be a fun experience where some people are earnestly really looking for someone to fall in love with. And then other people may just want to talk and meet new people and see what happens from there. And both of those are fine...The fact that no matter what we're looking for,..we have to enter on the defensive, it just sucks 90% of the joy out of it...Regardless of what your identity is, it's so difficult to put yourself out there. So then for women or maybe queer people that put themselves out there...they also have to think of all these precautions that they have to have ...know[ing] they're going to be met with weirdos or unsafe people; it just makes all of this so much less fun....It's very sad. It's kind of just a sad acceptance that my friends and I have." Sana's desire to have a fun experience with dating apps ultimately has morphed into a sense of disappointment as a queer woman, having to be on the alert by knowing from experience that being on the apps will, at some point, lead to encounters with "weirdos or unsafe people".

Men were understood as inappropriate actors within the dating app ecosystem, so much so that some participants discussed feeling shocked, lucky or surprised when they had interactions they

understood to be respectful. Men were perceived by participants as threats to one's safety unless proven otherwise. This belief is attributed to participants' experiences with men online that they deemed to be inappropriate. As a result, this informs a vigilance towards men in a dating context—online dating—and prompts some to be more cautious when engaging with men online. Noor explained that: "[For] a lot of the men, I started looking up their criminal records and I noticed that a lot of them had assault with a deadly weapon or assault. So it's very scary because that can be very dangerous. And when I first started online dating, I was very naive. And to an extent, I feel like I still am a little bit naive, but I don't think I would have noticed the signs and the red flags of an abuser and someone that would domestically hurt a woman unless I knew to look up that record." Noor's perception of men as a potential threat to her safety led her to seek out information regarding dating matches' records of violence and abuse. Similarly, Sana explained that she only ever receives unsolicited sexual messages from men, and that this realization has impacted the way she engages with those she perceives as holding this identity, as opposed to others, on dating apps. She explained, "An experience that I've had unfortunately happen a few times is unsolicited sexual messages, or messages with innuendos - always from men. There is a spectrum of unsolicited sexual messages I've received...that make a sexual innuendo about me performing a specific sexual position on them...[previous Quote from Sana's written reflection]....It makes me way more cautious when I match with men and makes me less trustful of them as opposed to gender non-conforming people or [other] people that I speak with...I don't trust people that quickly, especially if they're a man." Sana was less trusting of men in initial interactions as opposed to people of other genders she met on dating apps. Being more alert when matching with men was a shared experience among participants who's settings on dating apps made their profiles visible to men, often informed by the recurrence of nonconsensual or desired interactions. Participants seemed to have a general expectation that interacting with men on dating apps would bring unwanted nonconsensual interactions. This led to some participants feeling lucky for not having had extremely negative experiences facilitated by dating apps. As Naima described: "I've been lucky. I have not had anybody like, you know, really like throw a curveball at me that was really like messed up and made [me] unsafe." A sense of feeling lucky for not having experienced something "messed up" or that caused her to feel unsafe is exemplary of what seems to be an expectation by women and non-binary people in the U.S. Arab and SWANA diaspora that to be on dating apps brings the potential for experiencing targeted harm from men.

Participants perceived engagement on dating apps as a gendered vulnerability, anticipating risks and discomfort and prompting heightened privacy and safety concerns. As a result, participants frequently described a defensive entry into dating app ecosystems with men generally viewed as threats to safety and informing vigilance and cautious engagement with men on dating apps.

Attributing Design and Norms to Nonconsent

Participants described aspects of dating app design they believed increased their potential for experiencing nonconsensual interactions within the apps and the crossing of one's boundaries (unspoken, stated or assumed). The subtext of dating apps—their expectations for use—were attributed to the experienced bypassing of conversations that help to establish what types of behaviors are appropriate and wanted by individuals interacting within the apps themselves. Dating apps were understood as having behavioral expectations that enabled interactions not normally expected in dating interactions that originate offline. Ayah, like other participants, understood dating apps as having different subtexts or expectations for behavior. She attributes the subtext of Tinder as relating to the vast majority of her experiences with men on the platform being inappropriate, explaining: "If you're on an app like Tinder,

the subtext of being there is that you are a sexually active person. And I am constantly baffled by the amount of people who think that that means that there are no boundaries, that there's no respect, or anything like that. You can have a kind of back and forth with somebody that feels like a normal human conversation that two people might have on earth. And then that person skips right over to something...there was no lead up to, there was no consent, there was no conversation about comfort levels...There is the subtext of why you're on the app, but it doesn't override the rest of normal societal rules or graces." Ayah connects what she thinks the understood subtext of Tinder is to the (non)consent-related behaviors between two people who meet through the dating app. Participants described how they believed that individuals made assumptions about one's intentions merely for being on a dating app, aware that if someone were to see them on a dating app, they might make the assumption they are on there for sex or interested in sexualized interactions. As Sahaab described, "I think that for some people there may be assumptions that it's okay to be sexual, or it's okay to [do] whatever with everybody. And not [everyone's] coming to an app to, one, either have that...maybe they're asexual or something. But two, that's so far off. [Maybe] they first want to meet people, build trust and whatever. But I'm not sure there's a lot of good consent around sexualizing a conversation... I feel like there may be an assumption that, by default, you're on a dating app, sex is going to be a part of what everyone wants, and that's not necessarily the case." While Sahaab recognizes that individuals might be on dating apps for a variety of reasons, with different wants and needs, they describe a sense that others might assume that solely because someone is on a dating app their goals are sexual. Participants, like Ayah and Sahaab, believe that the expectations of dating apps may contribute to false assumptions and nonconsent, leading to the absence of discussing boundaries on an individual-to-individual basis.

Some participants thought the design and norms of dating apps themselves enabled less consequences or accountability for nonconsent. For example, Noor explained: "[I] think it's because it is online, you can be going on these dating apps just before you go to sleep. And it's so easy to unmatch if someone says, 'you're not respecting my boundaries', and they get a little butt hurt—unmatch. So I feel like most of the people who do not respect boundaries, they tend to just, 'Well, they're just wrong. I'm right. I'm always going to be right.' Again, it's all about how humans are disposable, how easy it is to just throw away whatever anyone else is saying that they're wrong" Noor attributes the ability to be able to quickly make-and-end connections as reducing the potential accountability for when a person behaves inappropriately (e.g. disrespects one's boundaries) by allowing one to dismiss and move on to someone else. Other participants had their boundaries breached with help from dating app systems themselves. For example, Sana described continuously being shown the same profile repeatedly, despite rejecting the match consistently. She explained, "I know I used to report someone. There was a profile of this guv that was so weird. And even though I rejected him a thousand times, his profile would keep coming up, and every time I would see it, I would just report it. Who is this guy?" Sana's interaction with the dating app system repeatedly caused her to have interactions with an unwanted individual, prompting her to report the profile in an attempt to stop seeing that potential dating match. Similarly, Sana continued to describe receiving inappropriate messages from individuals she has not matched with on dating apps, made possible by features like Tinder notes, where she received "notes on Tinder from people who have matched [her] (Quote from Sana's written reflection)", but that she has not yet matched with. Thinking back to Samia's metaphor of consent as a series of doors and matching on a dating app as the door to initial conversation being opened, features like Tinder notes allow for someone to initiate interaction prior to the consent door being opened. Additionally, Sara pointed out how dating app's messaging features may encourage unhealthy boundaries, explaining "I think because of the format of dating apps, you can

just message anyone anytime as much as you want." Sara questions the ability for somebody to have unlimited access to sending their dating matches' messages whenever and wherever they'd like, regardless of their dating match's preferences. Participants' experiences illuminate the ways design might directly mediate non-consent through what might seem like innocent design choices.

Some participants credited dating app design as providing (in)sufficient space for consent processes to occur. Participants contrasted dating apps like Tinder with dating profiles largely centered on images with other dating apps like Lex that had more space for text and community engagement. For example, Sahaab explained, "I think Tinder...the color, it's red, there's fire, it's quick, whatever. So it's primal...I think it has to do with the users, and you don't really deal with cis men on Lex or Her, and they're the issue typically...Tinder is very picture focused, so it's a little bit more superficial...My experience on Her is like a soft version of Tinder. It's still very swipey and very image-based, but, I don't know, less creepy, less overtly sexual DMs, and things like that...Lex, the experience there was much more like when I was younger and we were first getting the Internet, and there's AOL Messenger... You're engaging more, you're posting more. It's not about visual[s], it's about the content...And I found that I was able, in terms of my experience, to be the most honest and direct there. One, because of the way the platform is. But also, it felt more like community, or like queer community. And so I could just be much more, I thought, explicit about 'I mask in public', or 'I do this', or 'I want this or don't want that'." Sahaab's sense that they are able to be more direct and explicit about what they do or do not want with a dating match on Lex was attributed in part to the platform being text-based, as opposed to apps like Tinder that are much more centered on images and a faster sorting experience via 'swiping' when considering dating matches. Dating apps, through their design and modes of interaction made available to participants, can set the tone for consent being granted the time it needs to be able to occur between individuals.

Participants discussed the subtext of dating apps with varying behavioral expectations. Additionally, participants highlighted aspects of dating app design and norms that they believed increased the likelihood of nonconsensual interactions and boundary violations. Some credited dating app design for providing space for consent processes, contrasting image-dominate dating with more text-focused platforms.

Labor of Preventing Nonconsent

The act of engaging in extra labor and behaviors to ensure consent, prevent the experience of harm and promote safety is an integral part of the practices of consent among women and non-binary people in the U.S. Arab and SWANA diaspora. Ameerah explained: "I just have to be more vigilant and just if something's making me feel uncomfortable, then to note it. And then if it keeps making you uncomfortable just to say something about it. Because as a woman, especially in the dating scene, especially as a woman, I feel like we're already at a disadvantage because guys are so bad...". Similarly, Zeina connected her need to anticipate warning signs, "I think a lot about warning signs. I think a lot about situations where it was like, 'Oh, if she had just recognized like this one morning sign, like she'd still be alive. That kind of stuff. Or like, if she was just aware that he did X, Y, and Z, and she broke it off,...then she would be alive... I think about that and I'm like, I have to be extra vigilant." Women and non-binary people in the U.S. Arab and SWANA diaspora described extra vigilance, energy and labor to protect themselves from nonconsent. This echoes prior work that looks at the strategies women deploy as protective measures against intimate intrusions on Tinder—behaviors that while may not blatantly be violent, "still make them feel uneasy, uncomfortable, or unsafe" [56].

As opposed to a reliance on consent signaling [143], participants were interested in signals that participants would not infringe on their consent—this was assessed by participants making judgements about a dating match honoring their boundaries, and engaging in behaviors they understood to promote safety. For example, Sara described signals that a dating match had an understanding of healthy boundaries that aligned with hers, saying "It's hard to describe but I think I can tell when people don't have good boundaries, if they message a lot or they make comments that feel inappropriate...I try to get to know people just as slowly as you would under more traditional circumstances. And when people don't do that or don't respond to that, if I send one message and then they send me 10 messages, it concerns me that they potentially don't see how that can be emotionally unsafe. And I wouldn't say it signals to me a potential lack of physical safety, but I would say there's some lack, I think, [of] emotional safety. Maybe some people do really have successful relationships based on that model where you just get to know each other really fast and go really deep really fast. But for me, that is not a healthy model. And I really just prefer more traditional. I mean, it's like, without dating apps, we would be going on a date once a week, or without texting, we would be just like, 'oh, I'll see you next week', or 'I'll see you in a couple weeks'. And that's how you would get to know someone. And that feels really healthy and boundaried and appropriate to me." Based on the frequency and types of messages received from dating matches, Sara made judgements about how emotionally safe or how well a dating match understands boundaries. Similarly, Sana described signals for vetting safe dating matches based on conversations about her past dating experiences. She explained, "Usually past dating experiences come up. And then that's a great way for me to vet people based on their reactions to some of the messages I get, to me expressing how people have pressured me and done this, And then I usually can gauge their reaction to see, 'oh, that was messed up, that he shouldn't be doing that, and all this." By engaging in conversations where she self-discloses past nonconsensual and unpleasant dating experiences. Sana creates space for her to judge their responses to her disclosures, determine if they affirm the inappropriateness of the behavior, and makes judgments about their understanding of consent. As conversations or behaviors signaling understandings and practices relevant for consent emerge, participants described noticing and reacting to the information as they judged it.

Sometimes, however, participants deliberately sought out signals for the understandings and practices of consent embodied by their dating matches in efforts to prevent harm, often assessed through implementing little 'tests' to their dating matches. Sahaab described a series of questions she asks her dating matches, explaining: "I listed 10 questions, or 10 things that they had to answer, or whatever. So I was pretty overt with that. I was like, 'I'm tested. Do you get tested? How many...partners do you have? Do you...?' And some were political, and some were whatever. I don't know, maybe that's an aside. But I think that helps....It's different depending on the person. With cis guys, I expect more. I hold them to a higher level or something like that. Less grace. So, you can sense their personality a bit when they're pushy about like, 'Well, what are your answers?'...They don't like that they're more vulnerable. Usually women are more vulnerable. So some people would just graciously and openly answer all my questions, and sort of get in line in a way, and some.... I think, the person I met was...he was a little bit... You could tell he was uncomfortable of me knowing a lot of information about him, but not necessarily me giving a ton. [These questions were] something unique to giving men a chance." Through Sahaab's 10 questions, she attempts to understand a man's comfort-levels with not having power over a potential partner or with being more vulnerable than her by facilitating the exchange of information in ways that challenge normative power dynamics between men and women in a heteropatriarchal society. By asking these questions, adding more time for one's personality to emerge and judging how that relates to if she'd like

to continue speaking with them. Sahaab engages in labor to make judgements on safety and her desire to consent to further interaction with a dating match. Similarly, when reflecting on an instance where a dating match failed to bring a condom and lied about testing for sexually transmitted infections, Mila came to understand asking a dating match to bring a condom as a test or signal of their respect for her as a potential sexual partner. She explained: "I almost feel like telling men to bring condoms is a litmus test at this point since half of them don't, even when you tell them to, and then they act shocked when you refuse to have sex with them without it. I've really learned how little respect most men have for women's bodies and health. I unmatched with this guy, and ended up having to block his number because he kept trying to see me again. He has looked me up on social media and tried to match with me again on Hinge. It's deeply unsettling that he, like other men, cannot bear to take no as an answer. (Quote from Mila's written reflection)" By asking a dating match to bring a condom, Mila perceives herself as testing their respect for women's bodies and their health, and thus, her body and her health. In this way, willingness to adhere to her expectations for safe and respectful physical intimacy is signaled in part by passing her test. Deliberate initiation of tests to establish signals of one's understanding and practices of consent appeared to help expand the amount of information participants' had about dating matches' possible behaviors, allowing for an assessment of risks for nonconsent and harm.

At the same time, participants described engaging in the intentional pursuit of information online as a way to be cautious and mitigate risk of nonconsent. Many participants admitted to deeply investigating dating matches' digital footprints to increase the amount of information they had for making compatibility and risk judgements. To try and ensure her safety, Naima describes searching for more information about a dating match online: "I will try to Google people if possible. . especially because people will often list where they went to school. So if somebody's name is, for example,....If you know that [Name] is in [City, State] and he said that he went to [University]. You can like, you know, Google that and you know, I have successfully been able to find LinkedIn profiles or Instagram or Facebook profiles. You know, and that's been very helpful and yes, sometimes that does influence whether or not I wanna match with this person....It's helpful because you know, a) you can see if there's any suspicious photos on their profile on Facebook or Instagram, unless they've private at everything. If that's the case then you know, I can't do anything about that and I won't judge the person on that cause I'm also really private on social media... You know, and also just Googling things, you know, you can see that...they don't have any crimes that they've committed. So...it's a safety check more than anything else." Whereas in an earlier example Leyla experienced nonconsent and harassment due to someone finding her on other social media platforms as a result of information about her visible on a dating app, Naima used information visible about dating matches as a way to check for signals of safety, a value for consent, (e.g. no criminal record, no suspicious (subjectively assessed) activity). Similarly, Hana described asking dating matches for additional contact information to warrant they are who they've presented themselves as on their dating profile. She explained, "I just want to make sure they're a real person first. If I want to meet or talk to them off of the app, 'Hey, what's your Instagram and what's your number?' Just so I know...But then for me, just as a safety mechanism, I'll try to find out who this person is, anything, make sure they're a real person." Whether or not they lurk one's digital footprint directly asking a dating match or use investigative skills to find one's footprint based on the clues in a dating profile, participants valued additional information that could be found online than what was solely made available on a dating profile in order to assess risk of harm to themselves.

Despite a desire to engage in information-seeking about dating matches to reduce uncertainty of consent and safety, participants also described deliberately withholding information about themselves. For

example, after being physically grabbed by a person who recognized her from a dating app and being asked to explain why she did not swipe right on him, Hana chose to use a fake Arab name on her dating profile: "When leaving the bar with friends, I was pulled from behind by a random man. He called me by my name, when I have never met this person in my life. I was mortified. He asked me why I didn't match with him back on Tinder. After this experience, I deleted my Tinder...I have a very unique name...I now go by a shorter version of my name that has Arab roots to it. (Quote from Hana's written reflection)" Aware that her name was unique for the area she lived in and potentially more memorable as a result, Hana chose to withhold her real name from dating matches for fear of nonconsensual experiences. Similarly, Sana described becoming more cautious on dating apps in efforts to increase safety: "I guess I don't give out any identifying features, identifying details about myself, specifically where I live. In the past, I may have said, "yeah, I live in this city", but I've also lied before and picked the name of a neighboring city."

Through reducing the amount of identifying information about herself, Sana attempted to reduce chances for harm. Participants revealed being attentive to the types of information they shared and withheld from dating matches as a means to protect themselves from harm and other forms of nonconsent.

All in all, engaging in extra labor and behaviors to ensure consent, prevent harm, and promote safety is an integral part of the practices of consent among participants, involving strategies such as deliberate information-seeking, assessing signals of respect for boundaries, and implementing tests to gauge a dating match's understanding and practices relevant to consent.

5 Discussion

By looking at the experiences of women and non-binary individuals in the U.S. Arab and SWANA diaspora mediated by online dating apps, this study provides insights into how individuals' identities and social positions, consent-related beliefs and behaviors, and technology and its features intertwine to shape people's (non)consensual experiences. These insights have implications beyond dating apps to other types of computer-mediated technologies and social media where interpersonal interactions may occur or originate before moving off-line. By paying attention to the relationship between artifact-practice-and-beliefs [27,102], identity and consent, this study offers its main contribution: the lens of *technocultures of consent*—an intersectional [39] lens that can help situate consent-related experiences as mediated by technology while attending to one's social position and relationships with power. Through discussing the technocultures of consent among women and non-binary people in the U.S. Arab and SWANA diaspora, we highlight insights that may be gained by applying this lens, and how it is useful for CHI, CSCW and social computing scholarship exploring consent as mediated by and originating with technology, or for those interested in implications of technology use and design for safety, and privacy. Next, we reflect on dating app norms and designs and discuss the extent to which they align with values present among women and non-binary individuals in the U.S. Arab and SWANA diaspora.

5.1 Technoculture of Consent Lens: An Intersectional Lens to Situate Consent-Related Experiences Mediated by Technology

Technocultures of consent acts as both a name for the understandings and practices of consent that are influenced, co-produced or expressed by interaction between technology and people, as well as a lens with which to make sense of these experiences. In this study, we direct attention to the

consent-related experiences among women and non-binary people in the U.S. Arab and SWANA diaspora who remain understudied in consent-related CHI, CSCW and social computing research. André Brock argues that "online identity has long been conflated with whiteness, even as whiteness is itself signified as a universal, raceless, technocultural identity [27:1]. A technocultures of consent lens—recognizing that technology implicates consent-related beliefs, practices and behaviors—aims to push CHI, CSCW and social computing consent-related scholarship towards centering the racialized, and gendered user as opposed to a universal, genderless (white male) user [16]. Doing so helps us understand how identity and social positions are implicated in consent-related processes and experiences, and directs focus to how individuals' intersecting identities and relationships with power are salient to individual and groups' experiences of (non)consent [40]. As a result, researchers, designers and other technologist can be more attentive to the ways identity may shape or inform consent-related processes (e.g. establishing consent) [41,45] and respond to how these gendered and racialized consent-related processes may increase the consequences of nonconsensual harms for users from communities marginalized by systems of racism, sexism, heteronormativity at varying intersections of race, class, gender and sexuality in the matrix of domination [48]. In this study exploring the thoughts and experiences of women and non-binary individuals in the U.S. Arab and SWANA diaspora who use dating apps, our findings demonstrate the ways these communities' understandings and practices of consent were shaped by dating app norms/expectations and design, as well as informed by their identities (e.g. Arab/SWANA, Woman, Non-Binary) and the experience of living with these identities in a heteropatriarchal society in the U.S. context.

The technocultures of consent lens pays particular attention to the relationship between identities and social positions, consent-related beliefs and practices, and a technology and its features [Fig. 1]. It focuses on the interconnectedness of consent with and as mediated by artifact, beliefs and practices [27,102]—it holds a commitment to investigating the relationships between that might contribute to, enable or exacerbate experiences of (non)consent for those implicated by a technology's use, centering those at the margins of these experiences while also recognizing the importance of not dismissing those with power (e.g. whiteness, maleness, heterosexualness, etc.) to avoid normative analyses. For example, it would be just as important to explore technocultures of consent among white straight male people who use dating apps to illuminate how the power of whiteness, maleness or heterosexualness might afford certain consent-related beliefs and practices, and experiences with technology in turn. In this way, a technocultures of consent lens aims to center consent-related experiences of users experiencing marginality without ignoring analyses of other racialized and gendered users who hold power via whiteness and maleness or heterosexualness and so on.

TECHNOCULTURES OF CONSENT

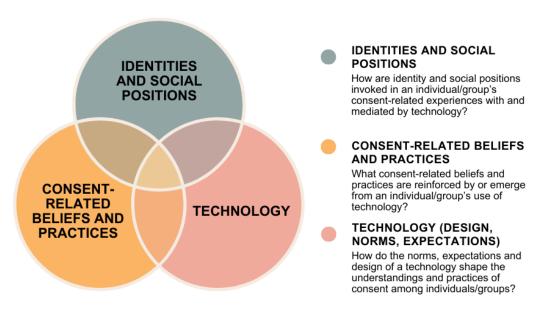


Figure 1: This is a venn diagram with 3 categories central to the technocultures of consent lens: 1) consent-related beliefs and practices, 2) Technology and 3) Identities and Social Positions. On the right hand side, it provides examples of questions scholars using this lens might use to make sense of consent-related experiences encountered in their work with participants. The questions proposed include: 1) How are identity and social positions invoked in an individual/group's consent-related experiences with and mediated by technology? 2) What consent-related beliefs and practices are reinforced by or emerge from an individual/group's use of technology? And 3) How do the norms, expectations and design of a technology shape the understandings and practices of consent among individuals/groups? We hope these guiding questions can serve as a starting point for scholars considering applying the technocultures of consent lens to their research.

We describe a few instances of technocultures of consent that emerged in our analysis as a result of being attentive to the interplay of consent-related beliefs and practices, technology and identity and social positions in our data. We then discuss the place this lens has for HCI and CSCW scholarship.

5.1.1 Nonconsensual Sharing of Information: Womenness, Queerness and Privacy Concerns

Participants expressed concern that their presence and information exchanged on a dating app (or with people encountered through dating apps) might spread to others in their personal networks without their consent (e.g. via screenshots) or that they may face context collapse [25] with those in their personal networks using the same dating apps. Some examples of specific concerns from participants were being worried that a screenshot of one's dating profile would be sent to a family member, or the possibility that evidence of one's queerness would be discovered by one's community. A wish to prevent nonconsent was motivated by concerns over one's reputation, a gendered double standard for engaging in dating or concerns of experiencing consequences for not adhering to heteropatriarchal norms that may be present among the Arab and SWANA diaspora and broader U.S. context [96]. Participants in our

sample—regardless if they were queer or straight—rejected these social norms through their decisions to engage in intimacy, dating and relationships outside of a heterosexual marriage.

Participants' concerns of nonconsent are deeply connected to privacy concerns that emerge from being part of a public and networked public [24] simultaneously. Public, in this case, can be conceived at a broad level as being part of a group of people who live in the United States, at a narrower level of belonging to a collective of people who exist as part of a diaspora as an imagined community with an imagined shared Arab and/or SWANA culture, or at the local level of belonging to a specific, localized community (e.g. city, neighborhood). Networked publics [24] in this context, on the other hand, refers to the (digital) space developed through dating apps and the imagined community that manifests from the intersection of people, dating apps and practices on the platforms. None of these publics (networked or not) exist as completely bounded entities. Participants' concerns of nonconsent and privacy violations invoked an imagined audience [76] of personal and communal ties, information distribution using technology's functions (e.g. screenshotting) and non-technical approaches like general gossip, and the consideration of social and communal norms. As dating apps can also be conceptualized as people-nearby applications [133,145], with many platforms relying on geographic proximity as a way to present potential matches, the boundaries between public and networked publics is even more blurred. It is within this understanding of publics and networked publics as blurred that participants attempted to navigate concerns of nonconsent and privacy infractions as members of the U.S. Arab and SWANA diaspora.

Participants' understandings of consent and concerns for the nonconsensual sharing of information call on Nissenbaums' theory of *privacy as contextual integrity* and Marwick and boyd's *model of networked privacy* [86]. Nissenbaum's theory of privacy as contextual integrity envisions privacy as a fluid interpretation of what an individual deems to be an appropriate flow of information depending on the context in which it is shared, as opposed to a binary of information as private/public or secret/not secret [100]. In the sociotechnical context, Marwick and boyd argue that networked privacy:

"...is the ongoing negotiation of contexts in a networked ecosystem in which contexts regularly blur and collapse. Networked privacy cannot be achieved simply by providing or denying information; it requires meaningful control over the networked contexts in which the information flows. [86]

While Nissenbaum's theory of privacy as contextual integrity [100] presents these contexts as stable and bounded, Marwick and boyd's model of networked privacy argues that "context slips and changes according to fluctuating social norms and technological affordances" [86], and may be interpreted differently according to an individual. Networked privacy—like consent—requires ongoing negotiation. This aligns with participants' understanding of consent as an ongoing process they should have full control over on a case-by-case basis for determining what is appropriate or not, consensual or not. For example, participants using dating apps believed that matching with another person on a dating app meant they were consenting to that specific individual having access to the information present in their dating app profile, but expressed frustrations and concerns with this information being spread to different contexts they had not consented to. Framing this with the parameters for context as proposed in privacy as contextual integrity [100], information in one's dating profile [data type] about a person [data subject] is being shared by that individual [data sender] with a dating match [recipient] because they are consenting to give access to that information through matching [transmission principle]. In this example, consent granted, through matching on a dating app, is what constrains the information flow in this context to be appropriate and it upholds the contextual norm within the diaspora that there is an appropriate flow of information between dating matches—in this example, information displayed on one's profile should not

be shared outside of this context without one's consent. And, this context is motivated due to potentials for reputational harm, and desires for control over who can and does have access to information they've chosen to make available within this networked publics/publics dynamic.

One's identities (SWANA/Arab, Woman, Non-Binary) and relationships with these identities may inform or motivate their granting of consent that establishes what is deemed appropriate or desired information flow in a specific context. As an example, Rana expressed being careful with what she shares with dating matches due to concerns that information about her queerness flowing out of a consented conversation could bring "disownment, ridicule, and rejection", prompting her to be mindful of what and to whom she shares information with when using dating apps. In this context of dating apps, Rana's queerness is carefully shared with a dating match, but her queerness is something that in a different context would be deemed private and inappropriate to be shared within. Information about her queerness is being shared selectively, as part of her negotiations of networked privacy and mediated by her understandings for the stakes of nonconsent as implicated by the consequences of her queerness becoming known by other networks. Negotiation of privacy and consent was also seen when participants, like Aria, paid attention to who may see her profile and used the 'pause' feature to make their dating app profile undiscoverable—thus, revoking access to information displayed by engaging with the affordance of visibility. While prior work [80] has argued that dating app users care more about institutional privacy (e.g. personal data shared with institutions) than social privacy (e.g. interactions involving people one knows or could know), participants concerns for nonconsent deeply implicated social privacy concerns exacerbated by one's womenness or queerness and membership in the U.S., and the Arab and SWANA diaspora. Members of racialized and gendered communities are embedded in various contexts and networks (publics) and our findings demonstrate how social norms (e.g. social stigma around dating within the diaspora, assumptions for dating app use as sexual) prompt dating app users to engage with technological functions to negotiate the myriad contexts of networked privacy.

As a result, in recognizing the ongoing nature of both consent *and* networked privacy, women and non-binary individuals in the U.S. Arab and SWANA diaspora might benefit from dating app design whose privacy settings and affordances regularly adjust or update to an individual's wants and needs. For example, dating apps could routinely prompt users with reminders of their current privacy settings and invite them to change these settings as they'd like at that moment. Dating apps might also provide additional abstracted data about who is coming across their profile, similar to LinkedIn's "Who's viewed your profile" feature [75], to allow individuals the option to get more insight for how their profile's imagined audience maps to reality [76]. This would allow individuals to make more informed decisions with regards to privacy settings and using other technological functions in attempts to manage risks of nonconsent and privacy concerns. Future work might explore how dating apps' current privacy features support or hinder one's control over the many contexts their information might flow from that shared on their dating app profile to that exchanged via CMC interfaces. Researchers might also investigate how dating app users fearing retribution for nonconsensual information sharing manage these concerns, specifically for information flows that extend beyond the networked public of dating apps, to identify ways dating apps can help mitigate nonconsensual information sharing from online-to-offline contexts.

5.1.2 Dating Apps, Neoliberalism and Consent-Related Safety Work

Participants in our study took it upon themselves to navigate the risk and harms encountered through their use of dating apps, in part as a reaction to the neoliberal ethos of dating apps that renders users responsible for their own safety. Apryl Williams, in her book on sexual racism in dating platform

algorithms, argues that "tech companies take a hands-off approach when harm comes to their users as a result of the social ecosystem they've developed: acting with the ethos of neoliberalism, it's every person for themselves" [140]. An emphasis on individual responsibility for safety and harm prevention is present with dating apps. In an analysis of how social platforms (including dating apps) frame safety, Gillet et al. found that social platforms position harm online as done by a few 'bad actors' that the responsible user can shield themselves from [57]. By dating apps addressing safety and harm prevention with a neoliberal ethos, they positions users as autonomous beings with uninhibited agency [141], and those without power in a heteropatriarchal society, such as young women [106], as fundamentally "capable of transcending gendered power relations and exerting complete control over their surroundings and other people" [30]. Within neoliberal discourses of responsibilization, the way that one's race, gender or class might shape power relations integral to consent processes is dismissed [58]. Participants in this study engaged in extra vigilance, energy and labor to protect themselves from nonconsent—work they took upon themselves to ensure safety and prevent harm while using dating apps.

Participants' labor to prevent nonconsent can be thought of as consent-motivated safety work that is a result of their lived experience and a decision to engage in practices within a heteropatriarchal context that affords them less power than men. In 2012, Liz Kelly coined the term safety work [70], to describe "the work women do as a precursor to stop the violence happening at all.... [work that] can become an automatic reflex...so automatic that we no longer notice the strategies that we use in our attempts to limit or avoid intrusions....[invisible work that] is hidden because it is related to the very core of what being a woman is...[and understood] as a requirement, producing a set of gendered expectations that have a huge amount of influence over our actions and beliefs" [137]. Through lived experience under the patriarchy, women learn to exercise safety work and be preemptive against potential violence or intrusions from men. Vera-Gray views the exercising of one's labor in safety work as *situated* agency—where one's agency is free and restricted simultaneously, "[safety work as] an expression of the way women are both acted on by, and capable of choosing to act within, the patriarchal gender order" [136]. By viewing safety work as a type of situated agency, Vera-Gray suggests we can avoid portraying women's preemptive (in)visible labor as a signal of limited agency in a patriarchal context, while also not feeling pressured to describe this labor as a symbol of women exercising complete freedom [136]. The concept of safety work has been applied to the labor heterosexual women on Tinder do to prevent intimate intrusions from men [56]. We apply safety work [70] to the consent-related practices of our participants who have identities beyond 'woman', but still engaged in gendered safety work in efforts to avoid intrusions, violations and nonconsent from men as mediated by dating apps in a heteropatriarchal society. The agency invoked through safety work is both free and limited [136]. Participants' experiences with dating apps reveal consent-related safety work as necessitated by dating apps' neoliberal ethos with regards to safety and the expectation of harm from men, while simultaneously prompted by an individuals' desire to prevent and or reduce the risk of nonconsent and the consequences experienced in turn.

Consent-related safety work by participants can be understood as situated within the neoliberal ethos of affirmative consent [58] and safety on dating apps [57,140], as well as the heteropatriarchy present in the U.S. and Arab and SWANA diasporic publics. Participants only referenced the features of (repeatedly) deactivating/pausing their account, unmatching, reporting, blocking or withholding responses to protect themselves from the consequences of nonconsent—however, they did much more supplemental labor thought to prevent nonconsent. We argue that consent-related safety-work as a practice in the U.S. Arab and SWANA diaspora's technocultures of consent manifest in several ways. First, participants apply predictive/proactive uncertainty reduction strategies regarding behavioral uncertainty about a dating

match's consent-related behaviors with the goal to increase predictability of their consent-related behaviors on-*and*-offline. Second, participants also understood their consent-related practices as connected to protecting the safety of those with perceived identity or experiential affinity, revealing an understanding of one's consent as interconnected that we refer to as *networked consent*, which we describe in detail later.

5.1.2.1 Consent Practices as Uncertainty Reduction Work: Dating Apps, Gendered Labor, and Reducing Uncertainty of (Non)Consent

Participants described engaging within the ecosystem of dating apps on the defensive, expecting to encounter harm from dating matches (particularly men), and considering themselves lucky if they did not. As a result, participants' consent practices culminated into labor—consent-related safety work—that aimed to reduce their uncertainty for experiencing nonconsent and its subsequent consequences. People are motivated to reduce uncertainty with others who can bring both positive, rewarding experiences, as harmful experiences [111]. Participants were inclined to reduce uncertainty for dating matches with the awareness that they might be a source of fun, safe, consensual experiences, as well as pose threats to their safety, bringing harm and other consequences to their online dating experiences. We argue that a fundamental practice of consent among women and non-binary people in the U.S. Arab and SWANA diaspora is implementing predictive and proactive uncertainty reduction strategies [21,22] regarding behavioral uncertainty about a dating match (e.g. consent-related behaviors), with the goal to increase predictability of (non)consent from dating matches. Predictive, proactive uncertainty reduction strategies aim to allow somebody to anticipate behaviors prior to them occurring [22]. For participants, these strategies included warranting-type [138] and information seeking [109] behaviors, as well as secret tests [18] to help individuals predict a dating matches' likelihood of nonconsent, as well as illicit signals of a dating match's understanding of consent.

According to Walther, individuals may want to warrant (validate) that one's online self-presentation aligns with their offline self, and engage in warranting-type behaviors based on the perceived legitimacy and validity of information about another person that one may receive or observe online" [138]. An example of a warranting-type behavior might be a person wanting to validate that a dating match was being honest when they said they worked for a certain organization by searching their name in online search and trying to find a secondary source to corroborate their claims. When information is perceived to be highly controllable by the person it describes, that information has less weight on an individuals' impression of the legitimacy between one's online and offline presence [42]. As a result, individuals are more likely to seek out information about a person with higher warranting value—information free from potential manipulation by that person—to corroborate claims made by a person about themselves online [138]. However, participants—instead of warranting information presented by another's online self presentation [55]—attempted to seek out additional information that corroborated their own assumptions based on the identity of a dating match and a result of lacking trust in dating matches. These findings differ from prior work on warranting and online dating [55] by individuals looking to warrant information assumed about a person on the basis of perceived identity, not information presented by a person.

Participants attempted to seek out information online that *affirmed* their expectation for encountering harm from male dating matches, such as Noor and Naima who deliberately searched online and offline for dating matches' criminal records, or evidence of past abusive behavior. While this information was absent from a potential dating match's profile, the expectation of harm from men within

dating apps' ecosystems became information in its own right that participants felt the need to warrant. Harm was the expectation, not the exception, and thus corroborating this expectation was one way participants tried to reduce uncertainty for nonconsent and harm from dating matches. The absence of such information online—such as not locating a criminal record—was seen as failing to corroborate an expectation for harm *and*, as a result, reduced uncertainty for nonconsent or the experience of harm in the future from the individual being warranted. This study *extends* warranting theory [138] by revealing how information *assumed* about an individual *on the basis of their identity*—not solely information explicitly presented or self-disclosed—might prompt warranting-type behaviors where people aim to corroborate expectations about a person they're communicating with online. Future work could investigate the role that identity-based assumptions have on warranting-type behaviors, illuminating how identity and assumptions based on one's identity may inform an individual's warranting of online self-presentations and offline realities.

Beyond warranting information presented and assumed, participants repurposed the messaging interfaces within dating apps and other forms of CMC (e.g. texting) to deploy interactive information seeking strategies to elicit information about an individual that they thought would help them to reduce uncertainty regarding (non)consent. Information seeking is a goal-motivated behavior that can be considered a means to achieve emotional, and social goals [109]. Participants' information-seeking behaviors were motivated by the goal of wanting to experience consensual interpersonal interactions, and behaviors from their dating matches' that aligned with their understandings of consent (e.g. respecting one's boundaries). Information seeking may involve "interactive strategies [that] entail direct interaction between communicator and target during which different tactics are enacted to elicit desired information. The communicator may interrogate the target, disclose information designed to elicit reciprocal disclosure, or attempt to relax the target as means for acquiring information" [109]. In Ramirez's view, the individual seeking out information aims to influence the kinds of information gained from another by changing their own behavior [109]. Past work has found that individuals sometimes deploy secret tests to potential relationship partners in order to acquire desired information about the status of their relationship [18]. Participants in our study described giving tests—tests we refer to as consent signal tests—to their dating matches to elicit information thought to signal a dating match's understanding and practices of consent, such as Sahaab's list of questions given to male dating matches to assess their (dis)comfort with vulnerability or Mila telling men to bring condoms to test their respect for her body and her health. Participants also chose to disclose information about past nonconsensual experiences in an attempt to prompt a response from a dating match, creating an opportunity for judging a dating matches' reaction to such sensitive disclosures.

In this way, participants repurpose interfaces offered by online dating apps for evaluating dating matches, "a profile page for each user and a messaging interface for dyadic interaction" [146], as testing grounds for evaluating a persons' potential understanding and practices of consent. Implementing consent signal tests are a type of consent-related safety work embedded into technocultures of consent among the women and non-binary people in the U.S. Arab and SWANA diaspora. However, the thing being evaluated—understandings and practices of consent—are used to predict a moving target, as one's consent or perception of another's consent can shift at any moment. And so, consent signal tests are a means of reducing, but not eliminating, uncertainty of (non)consent in future interactions. Future work could explore the relationship between dating app design and consent signal tests, noting how one's usage of dating app features and interfaces are interpreted by others for signals of desirable (whatever that means to them) understandings and practices of consent.

5.1.2.2 Networked Consent: Consent as Interconnected

We refer to the idea that one's consent practices and experiences are bound and connected with others as *networked consent*. The network, in this case, extends beyond people in one's social network to include people with perceived identity or experiential affinity. Practices of networked consent—such as reiterating that what one consents to is not representative of what others who share an identity might consent to with a dating match—can be conceived of as a type of consent-related safety work that attempts to preemptively prevent violations, harms and nonconsent of others, rather than oneself. While whiteness is often understood as representing a group of individuals acting as individuals, racialized communities are often portrayed as a monolith, dismissing the rich heterogeneity that exists within [27]. Participants were acutely aware of the orientalist discourse and fetishization that surround Arab and SWANA individuals—such as SWANA and Muslim women being perceived as sexually oppressed and whose liberation is dependent on their adherence to white feminist notions of sexual "freedom"—and did not want to further reify these beliefs in their consent-related behaviors with dating matches—particularly those who did not share their racial identity. Participants, understanding themselves as existing as part of a racialized group in the U.S. context, saw their consent and consent-practices as interconnected with others in this imagined network—network in this context being those with a shared identity (e.g. Arab/SWANA, Queer SWANA, Muslim Woman, etc.). A sense that one's consent is interconnected with another's experiences of (non)consent prompts some to feel a sense of responsibility for protecting others from nonconsent. In this way, networked consent was an understanding of consent that emerged among women and non-binary people in the U.S. Arab and SWANA diaspora.

This sense of being in community with those who share marginalized identities motivated behaviors when negotiating consent with dating matches and others in a dating context (as revealed in Section 4.2.2) that reflected this understanding of *networked consent*. For example, participants, like Aria, highlighted the ways that believing a dating match would assume (lack of) consent due to stereotypes about their racialized identities prompted them to engage in conversations with a dating match that ensured and reiterated their consent-behaviors and decisions were being made by them as individuals and not as a member (or representative) of a racialized group. Others, like Amina, reiterated a sense of wanting to protect others they are in community with—referencing a shared understanding that to protect oneself, marginalized individuals must protect each other and that means protecting from nonconsent. Practices of networked consent are both motivated by the feeling one is part of a community they hold a responsibility to *and* the awareness that one is perceived as belonging to or representing a gendered, or racialized group.

While participants revealed an understanding of consent as networked, it is less clear how this understanding is implicated by the design and experience of dating apps, *or* how it might relate to other experiences of technology where (non)consent is relevant. As a result, future work is necessary to explore people's understandings of networked consent and the way this might inform people's technology behaviors. This is important because it can help provide insight into how essentialism and processes like racialization that might reduce heterogeneous groups into homogenous characters with fundamental attributes inform individuals' decisions around negotiating, granting or withholding consent in their engagements with people *and* sociotechnical ecosystems.

5.1.3 A Place for Technocultures of Consent Lens in CHI, CSCW and Social Computing Scholarship

Social computing technologies have an important role to play for consent exchange and interpersonal consensual processes [144], and we know cultural beliefs and technological features culminate into technocultures that inform groups' behaviors [26]. Technocultures of Consent is a lens that aims to bridge these two facts by centering analysis on the relationship between one's identities and social positions, consent-related beliefs and practices, and a technology and its features. This is valuable for CHI, CSCW and social computing scholarship concerned with mitigating nonconsensual experiences and supporting consensual ones for individuals and communities while being attentive to differences in power and lived experiences within the sociotechnical. This lens is one way an intersectional approach [40] can be central to consent-related research emerging from the CHI, CSCW and Social Computing community, being attentive to power relationships, what it means to live with multiple identities, and how this complicates consent negotiations. It asks us to be open to centering and hearing the experiences of those studied as a research focus (e.g. women and non-binary people in the Arab and SWANA diaspora), as opposed to merely referencing groups—often portrayed as on the margins—as sites for future research or as research applications [12] for understanding technology-mediated consent processes.

This study, for example, by hearing and centering the experiences of women and non-binary people in the U.S. Arab and SWANA diaspora, begins to illuminate the technocultures of consent present in this group, with implications for privacy, safety and (un)desirable (non)consensual experiences as mediated by technology that can have benefits for others. Similar to trauma-informed computing [35] that argues that if you design technology for those experiencing trauma, you can improve safety for all users, a technocultures of consent lens believes there is value for everyone in centering consideration for the social positions and power differentials that exist among users of a technology when analyzing understandings and practices of consent—specifically those influenced, co-produced or expressed by interaction between technology and people. In this way, a technocultures of consent lens aims to prioritize intersectional analyses in consent-related research among CHI, CSCW and Social Computing scholarship by being attentive to power differentials that come with living with certain intertwined identities [40].

5.2 Opportunities Exist to Directly Support Consent through Dating App Design

Participants in our study revealed understandings of consent (Section 4.1) that centered myriad values such as safety, trust, direct communication, and the ability to set and change boundaries. Through participants' engagement with dating apps, we argue that dating app norms and designs both supported *and* contradicted these values in the ways they make or constrain space for consent. As a result, dating apps might consider how design can make additional space for consent processes.

5.2.1 Trust and Safety Need Space and Time for Consent to Develop

Participants needed time and space to establish trust and a sense of safety with a dating match prior to negotiating consent. However, this space—both as a feature of design *and* as a construct of time—was not always supported by dating app norms and design.

Participants described norms and expectations across dating apps that led them to feel they were expected to move faster than felt comfortable or healthy to them—this further complicated consent as mediated by and through dating apps due to many participants feeling time was needed to establish safety and trust, and sufficient communication and boundary setting to occur. In other words, while participants believed they needed time to develop consent, their understanding of the norms and expectations of dating apps and others on these platforms contradicted these beliefs. Recognizing how the design and norms of platforms can influence user experience, we reject a neoliberal framing of safety and harm on dating apps that "absolves platforms of responsibility and reproduces the myth that platforms are neutral conduits, rather than powerful media institutions whose architectures, cultures, and governance practices not only reflect but also help to shape society and its various forms of inequality"[57]. Instead, we argue dating apps' design can create more space for consent to develop (along with a sense of safety and trust) while also enabling individuals to interject more time and space in connection development with additional features and settings.

5.2.1.1 Making Space through Design for Consent...

with One's Profile...

Within a dating app profile, there is an opportunity for space to be added for individuals to disclose consent-related information, wants and needs to potential dating matches. Participants described the ways features within dating profiles were used as starting points for establishing consent-such as the "What're you looking for feature?" where users on dating apps are invited to publicly display their goals on their dating app profile. In 2022, Hinge added a dating intentions feature that allowed users to provide additional context in their own words with an open-text box that could then be displayed below their selected response (e.g. short-term, life partner) on their profiles [84]. While other dating apps like Tinder, Salams and Bumble do include the option to select from a list of dating goals, there is no space embedded within design to elaborate on what that intention means to the user. Participants understood that words used to define dating goals or intentions can mean different things to different people, and that dating goals on one's profile can be one, non-binding way, to hint at the types of interactions a person may consent to. That being said, open-text boxes that prompt a user to elaborate on their dating goals as opposed to having to rely on pre-prescribed options aligns with participants' understandings of the fluidity of dating intentions and makes more space for voicing one's wants and needs through design. Additionally, another opportunity to interject space for conversations relating to consent are the prompts dating apps provide to individuals to display on their profile alongside their images and other information like their height, job, and age. For example, Hinge is the only dating app our participants used that included prompts specifically with topics relating to consent, with prompts such as "A boundary for me is..." and "A non-negotiable for me is..." This feature provides individuals additional space to voice their general boundaries to potential dating matches *prior* to any direct conversation beginning, and can be used as a starting point for discussing more specifics as needed on a case-by-case—or match-by-match—basis. While prior work has found some people explicitly include language within their dating bios to suggest to dating matches they should talk about consent [143], prompts like those discussed above specifically designate profile space to consent-related conversation and speech as opposed to it being convoluted with all the other text in someone's bio. Future work should look into how individuals make sense of disclosing consent-related wants and needs on their profiles, as well as the myriad ways people interpret these disclosures when coming across profiles that include consent-related

conversation up front. In doing so, we can better understand the implications of designating space for consent within one's profile and its relationship to prompting conversations about consent between possible dating matches.

with Personalized Settings...

Participants were critical of the effectiveness of dating apps' terms and conditions that individuals have to agree to in order to create a profile and begin sorting through potential dating matches. And, as we've learned from our participants' experiences of nonconsent with others on the app, the idea of what constitutes nonconsent can vary from person to person, as well as depend on one's interpretation of levels of consent (Section 4.3.2) where time, duration and other contextual factors are influential. As a result, there is the potential for design to make space for individuals to set their own preferences *and communicate* them with the potential dating matches who wish to match and interact with them. For example, what would it be like for dating profiles to have space for individuals to select (and elaborate) on interaction preferences, dislikes or dealbreakers. These could refer to things like *frequency* of messaging, *mode* of messaging, comfortability with moving off-the app or for a dating match to contact them through another medium (e.g. social media, in-person), openness to consider physical intimacy with somebody they met on a dating app, etc. In doing so, dating apps designate space to communicate and lay out one's boundaries, consent-related wants and needs to potential dating matches. In other words, we might consider how dating apps can integrate this information into the repertoire of information already collected when creating one's profile with the option to be visible to others.

An area for future work might explore seeking a balance between offering space for this information and offering too much space. This balance should prevent information overload [74], avoid repeating patterns of dismissing platforms' terms and conditions [69], as well as ensuring the format of the information emphasizes these preferences are non-binding and can change at any time. We must also consider that some individuals, like Sahaab, may not want to invest time talking about consent with dating matches *until* they've determined a dating match is somebody they're interested in knowing—this highlights the importance of flexibility with any features designed to prompt or mediate conversations or the exchange of information regarding consent. It is important for design to offer space for consent, *without* mandating it from a design perspective—by creating space and the option for displaying this information, design allows individuals *the choice* regarding what, how, if and when this information is disclosed to others.

with (possibilities) for Screen Capture...

Prior to the opportunity for any consent negotiations to take place, participants had concerns simply by being on dating apps about the possibility of others screenshotting their profile and sharing this information and content with others (particularly those in their networks). Dating apps like Salams and Muzz offer individuals the opportunity to have more control over the visibility of *photos* shared on their profiles—allowing the option to hide or blur photos, and then selectively choose when and to whom (of their dating matches) they'd like to make those photos visible to [91,116]. In doing this, Salams and Muzz grant users the ability to have more control over their photos' visibility—allowing space for a user to decide who they'd like to see their photos, instead of visibility automatically being granted to anyone who discovers their profile on the app. This feature being more prevalent on dating apps *might* be one way dating app design can address concerns of potential dating matches an individual deems unsafe or untrustworthy having access to and an ability to share photos shared on a dating profile. Additionally, the

ability to screenshot or not screenshot brings to light a tension between screenshotting and one's privacy and safety. While only Raya and Badoo explicitly ban users from screenshotting dating app profiles or messages [41], other dating app platforms specifically encourage users to submit screenshots of a person's profile or messages when reporting their behavior [64,130]. As a result, there is a need for dating apps to design a more regulated screenshot or screen recording ability that balances uses of screenshotting/recording for safety, as well as privacy violations (e.g. prevent nonconsensual profile sharing) [123]. Future work would benefit from studying the motivations and practices of screenshotting or screen recording on dating apps to understand how to best design built-in systems that prevent screen recording and screenshots that do not support the safety or privacy of a platforms' users—particularly for platforms whose usage might bring increased risk to some of its users if privacy violations and nonconsent occurs.

with Boundary Setting...

Participants also expressed varying levels of comfort with directly communicating wishes to progress *or* end a connection with a dating match. As a result, dating apps could provide support for communicating or signaling one's wishes to a dating match. For example, Naima expressed comfort with directly telling a dating match she'd like to move from the platform to a phone call, but another individual may not feel comfortable being super direct. What would it be like for a dating app to offer the ability to directly signal the types of progression a person might be interested in with a certain dating match that would then be visible if the dating match also expressed a similar interest (e.g. selecting an option(s) that you'd be interested in going on an in-person date, having a video call, exchanging phone numbers, etc. with a dating match and having that option 'unlock' if a dating match reciprocates the same interest)? Such a feature would support those who may not feel comfortable directly telling a dating match they'd like to progress a connection *and* not permit the use of certain features (e.g. video calling) until reciprocal interest unlocks that feature, reducing potentials for nonconsent.

Additionally, participants' highlighted the ways that their upbringing within the diaspora might have supported *or* constrained their skills for setting boundaries in dating contexts. Similar to how Bumble offers suggestions for first-messages (e.g. pick up lines), dating apps could also offer editable messages to send to dating matches that state and affirm boundaries to provide features that support communicating boundaries with dating matches. For example, a participant like Nazli may benefit from suggestions for how to communicate with a dating match that a message of theirs made them feel deeply uncomfortable and, as a result, they no longer feel comfortable continuing speaking or continuing the connection. Then, Nazli could be granted the opportunity to automatically have the connection unmatched, reported, and/or blocked upon receipt of the message. As another example, as shared by Sana, an individual may feel uncomfortable with exchanging phone numbers with a dating match and be unsure how to communicate that discomfort—a message that provides a starting point with suggestions for how to set that boundary and say "No" would help lessen the mental labor of navigating that uncertainty. In this way, dating app design could make space for supporting the boundaries of their users by supporting the establishment and maintenance of these boundaries.

5.2.1.2 Making Space by Adding Time for Consent

Participants had varying interpretations of the ideal amount of time and space needed for desirable, consensual interactions (e.g. messaging, in-person dates) to take place, as well as for establishing trust and a sense of safety with potential dating matches. This was often in tension with

participants' sense that some had expected faster relationship development from on-to-offline. As a result, dating apps may be designed to introduce more time in (between) interpersonal interactions as a way to make space for these foundational values of trust and a sense of safety to emerge between dating matches.

Individuals may have different wants and needs before enough trust and comfortability with progressing to other forms of interaction can occur. As a result, they might benefit from features that allow them to set hard boundaries with dating matches or that insert space (e.g. time) between potential interactions. For example, dating apps offer users the ability to toggle on and off varying notifications, such as for receiving a notification when they get a new match or get a new message. What would it be like for dating apps to allow individuals to self-select if, when and from whom they'd be open to receiving messages? Currently, participants, like Sara, expressed concerns that dating matches could send messages at any moment and frequency. Dating apps offering the option for individuals to set modifiable boundaries for contact within the app can help build features that allows a person to add space and time in between potential interactions with dating matches on an app—as opposed to a match automatically translating to open-access to a shared messaging space. These boundaries can be set on a case by case basis, and grant individuals more control over how and when and from whom they can interact with on the platform. In this way, individuals can set the pace for progressing a potential connection with a dating match without being limited to the binary of open-access or permanently revoked (blocked) access.

For participants who expressed concern over the lack of time and fast-paced nature of dating apps, dating app design that grants more time for a dating match connection to (potentially) progresses might be appreciated. Prior work in HCI [101] has proposed *designing for slowness* as a way to support anticipation. Participants in our study seemed to anticipate harm/nonconsent despite desiring consensual, enjoyable experiences with dating matches. Future work might explore what designing for slowness might look like in the context of dating apps to add time for trust and a sense of safety to grow between dating matches.

With all of these speculations on design that future work must explore, it is important to note that issues of (non)consent become even more complex as individuals move offline, and so we are hesitant to make drastic claims that certain design features can *end nonconsent*. Most of the suggestions above are imagining ways that dating apps can explicitly build *space* for consent-related practices and behaviors within dating apps in alignment with the values of consent as conveyed by the participants in this study (e.g. direct communication, boundaries, safety, etc.). At this time, it is unclear the direct thread between these potential design changes and their translation to individual experiences of (non)consent as mediated by dating apps. However, future work can explore the impacts of these designs that may create more designated space and time for consent-practices and behaviors.

5.2.2 Tiered Platform Safety: Safety and Privacy should be a right, not a Premium feature.

Participants described safety and privacy concerns as a result of potential nonconsensual information sharing (e.g. screenshots of one's dating profile), worry of experiencing reputational harm and the consequences of a gendered double standard if discovered on these apps, *as well as* wishing to avoid context collapse by other users in their offline network finding them through their own usage of dating apps. Dating apps offer users the ability to temporarily pause their account—rendering themselves undiscoverable by others on the platform. Additionally, several dating apps, such as Tinder, Hinge and Muzz, offer features that allow users to preemptively prevent certain individuals from seeing their profile

by blocking their contacts manually or via syncing their contacts [65,92,131]. While this ability to preemptively hide accounts from individuals one already knows isn't available across the board, other features exist on dating apps that do give people more safety and privacy features to control and manage these concerns. The only issue? They're hidden behind a paywall in some dating apps' subscription membership models [28,61,90,93,117,118,132]. As a result, one's safety and privacy is made to be considered a privilege, and not a right.

Having control over who sees their profile was at the heart of participants' privacy concerns when using dating apps. Unfortunately, the ability to control who sees a profile is considered a premium feature on all the platforms, except for Hinge and Lex (who do not offer this feature at all), that participants used at the time of this study [28,61,90,93,117,118,132]. Whether the feature is called *incognito* mode, *stealth* mode or some other name, many dating apps offer individuals who paid a subscription the ability to only be seen by individuals they have expressed interest in. For example, Bumble's *incognito mode* allows users to "have more control over who can see [their] profile while swiping.... [they are] able to swipe privately by initially hiding [their] profile from other users and then only appearing for those whom [they] have swiped right on" [29]. As a result, features like Bumble's incognito mode significantly reduces the concern of individuals being seen by those thought to be a risk to their privacy, safety or reputation for a fee.

Some paid subscriptions also offer individuals the ability to gain access to others and their information, as well as coerce responses by making consent something individuals can simply purchase. For example, Tinder Premium and Tinder Select [132] allows users to message a potential dating match prior to a match occurring. However, participants expressed an understanding that a match was the signal that they were consenting to conversation with a person. As a result, the ability to message without matching being offered only to those willing to pay a price creates the sense that access to individuals can be bought without their consent. As another example, Salams Diamond offers an anti-ghosting feature that forces dating matches who have not responded to a message in 48 hours to either respond to that message or unmatch if they'd like to continue using the app and sorting through profiles [127]. They explain that, with anti-ghosting, a dating match "will respond back before continuing their swiping session. This screen will alert the user that they must respond with the message "Don't be a Ghost". With this trigger message, we hope to make users more aware of the negative aspect of ghosting, and to prompt them to be polite and respond to their 'match'" [127]. While Salams frames this feature as prompting individuals to be polite and not ghost, it directly contradicts the freedom of choice integral to participants' understandings of consent *and* the desire to have no coercion in their interaction with dating matches. Instead, this anti-ghosting feature coerces a response (either a message or an unmatching) from an individual in order to continue using the service. Participants highlighted several reasons they may choose to ghost or refrain from responding to a match, as well as expressing that they may choose to slowly disengage from interacting with a dating match out of fear of triggering an unsafe response. Features like the anti-ghosting feature remove the ability for individuals to *choose* how they might end an interaction, as well as set expectations for how frequent a person should communicate with a dating match (as opposed to deferring to the individual's choice). Other subscription models, like HER Premium, offer individuals the ability to see the read receipts of messages they send to a dating match without the other person's knowledge [61]. HER boasts that "you can check the status of your sent messages without them knowing. We know how to keep it low-key and smooth" [61]. By paying a fee, individuals are able to gain access to another's information without their consent. Altogether, these are just a few examples of dating

apps' paid subscription models that allow additional features that can infringe on someone's ability to withhold consent to certain interactions *or* information sharing.

We argue that the ability to have greater control over one's safety and privacy, as well as the ability to bypass consent should not be determined based on what one can financially afford—this study illuminated concerns over the racialized and gendered consequences of nonconsent (Section 4.4.1), and monetizing safety and privacy only creates opportunities to exacerbate these concerns. We argue that some dating apps seem to be operating under a model of, what we refer to as, tiered platform safety¹⁰—a model of monetizing safety, privacy and consent-related features so that different users are operating with different features integral to managing one's safety, privacy and interpersonal (non)consent based on how much one is able *or* willing to pay. Future work might conduct a systematic review of dating apps' [and other social platforms'] paid subscriptions to compare and contrast the extent to which safety, privacy and consent-related features are (non)monetized, allowing us to map the prevalence of this phenomena and consider their implications for (non)consent, harassment, and affordability-based safety and privacy on social platforms, as well as how tiered platform safety models might exacerbate the safety, privacy and consent-related harms already experiences by marginalized groups at the axes of class, race and gender.

6 Conclusion

Through 20 written reflections and 13 interviews with women and non-binary individuals from the U.S. Arab and SWANA Diaspora (N=23), we explored connections between their identity and social positions, understandings and practices of consent, and dating apps and their features that were salient to their experiences of (non)consent as mediated by dating apps. We found that women and non-binary people in the Arab/SWANA diaspora in the U.S. had a broad understanding of consent that extends beyond the physical, and is recognized as an important sociotechnical issue implicating dating apps, designers and society at large. We also found that boundaries, safety, trust and kindness were salient to participants' consent practices and beliefs—revealing tensions when those values are not shared with dating matches and not prioritized in dating app design. We detailed the ways that navigating gendered and racialized power dynamics complicated participants' efforts to establish, revoke and enjoy consensual interactions, and noted limitations within dating apps for enacting agency in consent negotiations. Lastly, we reflected on participants' understandings of consent as communicated, yet misunderstood and unexpected on dating apps, noting the types of practices that emerged from these understandings to try and mitigate risk for nonconsent. Women and non-binary people in the Arab/SWANA diaspora in the U.S. are not a monolith, and their experiences revealed the ways their myriad social positions and identities (e.g. race, gender, sexuality) shape their understandings and practices of consent as mediated by dating apps.

Drawing from our analysis, we contribute the technocultures of consent lens and demonstrate how this lens helps to situate the positive and negative consent-related experiences of individuals experiences facilitated by technology by focusing on connections between privacy concerns, nonconsent and sociocultural dynamics, as well as the consent-related safety work participants engaged in to protect against nonconsent. We extend warranting theory to include how information assumed about a person on

¹⁰ The name of tiered consent is loosely inspired by what Caplan and Gillespie refer to as a tiered governance strategy in which social media platforms are offering content creators "different sets of rules, different material resources and opportunities, and different procedural protections when content is demonetized"[33].

the basis of perceived identity, not information solely presented by a person, is warranted as part of participants' uncertainty reduction consent-rated safety work. We also propose the novel concept of *networked consent* to describe the belief that one's consent practices and experiences are bound and connected to others with perceived identity and experiential affinity, and demonstrate how this motivated consent-related safety work that aims to protect *others* from nonconsent. We discuss the constraints of dating app norms and design for making sufficient space for consent processes that center values of safety, trust and kindness, and propose future directions for research and design to consider for allocating space and time for consent to occur on dating apps and other CMC technologies. Through this discussion, we also introduce the concept of *tiered platform safety* to refer to a system where platforms monetize features related to safety, privacy and consent and argue this model helps create an ecosystem where one's safety, privacy and interpersonal (non)consent are cost-dependent.

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Appendixes

Appendix A: Screening Survey

Screening Survey

Please read the following paragraphs:

Thank you for participating in this screening survey. This survey's goal is to help find eligible participants for a questionnaire and interview study. The goal of this study is to better

understand the online dating experiences of Arab- and Southwest Asian and North African

(SWANA) Americans.

Research Team:

Student researcher: Nadia Karizat, University of Michigan School of Information

Faculty Advisor: Nazanin Andalibi, University of Michigan School of Information

You are eligible to participate in this survey if you:

a) are 18 years of age or older; b) live in the United States; c) self-identify as being part

of the Arab or SWANA diaspora [but not a first-generation immigrant] (born in the United

States, with at least one first-generation (immigrant) parent, grandparent, great-grandparent and

so on from an Arab and or SWANA country (e.g. Syria, Egypt, Iran, Tunisia)); and d) are an

active user of one or more online dating apps.

This screening survey will take around 5 to 7 minutes to complete. If you are invited for

the study, you will be invited to participate in part 1, a questionnaire. This questionnaire with

reflective writing entries will take no more than 60 minutes in total. I will offer a \$25 Amazon

gift card for participating in the questionnaire study and helping us. You may also be invited to

the interview part of the study to talk more about your online dating experiences. This interview

will last about 60-90 minutes. I will offer an additional \$25 Amazon gift card for participating in

the interview part of the study.

1. Do you currently use one or more online dating apps? Yes/No (stop the survey if no)

2. Do you self-identify as being part of the Arab or SWANA diaspora, but not a first-generation immigrant? (born in the United States, with at least one first-generation (immigrant) parent, grandparent, great-grandparent and so on from an Arab and or SWANA country)? Yes/No (stop the survey if no)

- 3. **Do you live in the United States?** Yes/No (stop the survey if no)
- 4. What is your age now? ____ (stop the survey if response is < 18).

[When the survey exists in one of the above criteria, the exit message will be: "We appreciate your interest and willingness to participate in this study. Based on your responses so far, it seems like you do not meet the minimum eligibility criteria for participation."]

Responses to this survey are private and confidential. I ask for your email address only so that I can get in touch with you if you are invited for the questionnaire and or interview study. If you are not selected to participate in either study, I will not keep your email address but I may use your de-identified responses to this survey in analysis. I appreciate your input.

1. What online dating apps do you currently use? [Select all that apply]

- a. Bumble
- b. Christian Mingle
- c. Coffee Meets Bagel
- d. Facebook Dating
- e. Grindr
- f. Her
- g. Hinge
- h. JDate
- i. Plenty of Fish
- j. Salams
- k. Tinder
- 1. Other: [Please type in]

2. What online dating apps have you used in the past, but not currently? [Select all that apply]

- a. Bumble
- b. Christian Mingle
- c. Coffee Meets Bagel
- d. Facebook Dating
- e. Grindr
- f. Her
- g. Hinge
- h. JDate
- i. Plenty of Fish
- j. Salams
- k. Tinder
- 1. Other: [Please type in]
- 3. In the past, have you used DateMe, Peas in a Pod, or SoulDate?
 - a. Yes
 - b. No
 - c. I used to but I don't now
- 4. In 1 to 3 sentences, how would you describe your online dating experiences? [please type in]
- 5. How long have you used online dating apps (including breaks off the app)?
 - a. Less than 3 months
 - b. 6 months to 11 months
 - c. 1 year to 2 years
 - d. More than 2 years
- 6. Have you ever interacted with someone you met through online dating off the apps (e.g. in-person date, video call like FaceTime or Whatsapp Video, messaging on another social media platform)? [yes/no]
- 7. How would you describe your online dating goals currently?
 - a. I'm looking for a long-term partner
 - b. I'm looking for a long-term partner, but I'm open to something more short-term.

c. I'm looking for something short-term, but am open to a long-term partner.

- d. I'm looking for short-term fun.
- e. I'm looking for new friends.
- f. I'm still figuring it out.
- g. Other: [please type in]
- 8. What is your gender? [please type in]
- 9. What pronouns would you like me to use to refer to you? [please type in]
- 10. What is your race (e.g. Black, SWANA/MENA, White, Asian, Mixed)? [please type in]
- 11. What is your ethnicity? (e.g. Armenian, Chaldean, Egyptian Coptic, Iraqi, Lebanese) [please type in]
- 12. What Arab and/or SWANA country) is your family from? (e.g. Syria, Egypt, Iran, Tunisia) [please type in]
- 13. **Do you self-identify as Arab?** [yes/no/not sure]
- 14. What is your sexual orientation? [please type in]
- 15. **What is your highest education level?** (Some high school/High School/Some College/College/Some Graduate School/Graduate Degree)
- 16. What best describes your current employment status? (Employed full-time/Employed part-time/Out of work and looking for work/Out of work but not currently looking for work/Stay-at-home-parent/Student/Military/Retired/Unable to work)
- 17. What was your total household income during the past 12 months?
 - a. Less than \$25,000
 - b. \$25,000 to \$34,999
 - c. \$35,000 to \$49,999
 - d. \$50,000 to \$74,999
 - e. \$75,000 to \$99,999
 - f. \$100,000 to \$149,999
 - g. \$150,000 to \$199,999
 - h. \$200,000 or more
- 18. What is the best email address to contact you if you are selected and invited to participate in the study? [please type in]

If you have any questions please feel free to contact this study's researcher, Nadia Karizat at nkarizat@umich.edu.

The University of Michigan's Institutional Review Board has determined that this research is exempt from IRB oversight.

Appendix B: Phase 1- Questionnaire for Reflections on Past Interactions and Experiences

Email to Send to Participant with Instructions

First Email for Informed Consent:

Hello,

Thank you for completing the survey to participate in a study about your online dating experiences as a member of the Arab and/or SWANA diaspora in the United States. You've been **selected to participate** in the first phase of the study: a questionnaire that asks you to write reflections on five online dating experiences or interactions that you choose to share by writing a brief description of the interaction/experience.

Before I send you the questionnaire, please sign the informed consent form. You can read and electronically sign the informed consent form here: https://umich.gualtrics.com/jfe/form/SV 0cESJtxdXBUM5eK.

Once I receive the signed consent form, I will send you the questionnaire within 24 hours.

Best,

Nadia Karizat

Second Email:

Thank you for submitting the informed consent form. As I explained before, you've been selected to participate in the first phase of the study: a questionnaire that asks you to write reflections on five online dating experiences or interactions that you choose to share by writing a brief description of the interaction/experience.

I am interested in hearing about moments that stand out to you as memorable, interesting or surprising during your time(s) on online dating applications. These moments may be memorable, interesting or surprising for a wide variety of reasons; for the good or for the uncomfortable, for the exciting or for the troubling. Whatever you feel comfortable sharing with me, I am grateful to hear from you.

As a thanks for your participation, you will be sent a \$25 Amazon gift card to your email within 1 week after submitting the questionnaire. I will send periodic reminders to submit. If after reading this email you are no longer interested, please respond back to me as soon as possible to let me know your

decision to not participate in this part of the study. If I have not received a questionnaire in 14 days, I will assume you have chosen not to participate in this study.

Instructions for Phase 1:

- 1. You should complete the questionnaire on Qualtrics. The questionnaire can be found here: https://umich.qualtrics.com/jfe/form/SV_dj2T1VIOPsEKM98
- 2. The questionnaire will ask you to answer the following questions for five online dating experiences or interactions that you choose to share:
 - 1. Please describe the interaction or experience in your own words.
 - 2. What dating app is most relevant to this interaction or experience? For example, which dating app did the interaction/experience take place in or from which dating app did you first meet or encounter the other person(s) involved in the interaction/experience?
 - 3. What thoughts/feelings/emotions do you have looking back at this interaction/experience *today*?
- 4. At the end of the questionnaire, you will be asked if you would be interested in being contacted for a 60-90 minute interview to talk more about your online dating experiences? You will be reminded that participants invited and scheduled for an interview will receive a \$25 Amazon Gift Card following the completion of the interview.

Some important things to note:

- 1. If you have any questions, please feel free to contact me at nkarizat@umich.edu with [Arab/SWANA Online Dating: Your First Name] in the Subject Line. I will get back to you within 48 hours.
- 2. Anything you share with me will remain confidential, and any identifying information will be anonymized.
- 3. You can share experiences or interactions that occurred at any point during your usage of online dating apps. This means an experience or interaction that happened yesterday, last month, or even two years ago is of interest to me. As long as you feel it is memorable or it stands out to you in some way, I want to hear about it.
- **4.** Completing this survey should take you no more than 60 minutes in total. I appreciate any and all time that you spend sharing your experiences with us.
- 5. I have resources on hand to support you, particularly those who may be sharing difficult or uncomfortable experiences with me. If you'd like resources, please let me know.

Appendix C: Phase 2- Interview Protocol

"Hi, my name is Nadia Karizat and I'm a PhD Student at the University of Michigan in Ann Arbor. I'm here to understand your experiences with online dating, on-and-off the apps. This interview will take about 60-90 minutes, during which time we'll go through some questions.

A couple of things before we start. I will take your comments to be confidential and any quotes used from this interview will be anonymized. This interview is entirely voluntary on your part, and I appreciate your participation – if for any reason you want to pause or end our conversation or don't feel comfortable answering certain questions, please let me know. Do I have your permission to record this interview? [wait for them to consent]

Do you have any questions for me? All right, then, let's proceed."

[Warm-Up]

- 1. Can you tell me a little bit about which dating apps you've used? What made you choose those apps specifically?
 - a. Are there any dating apps you used to use but don't anymore? What caused you to stop using [dating app]?
 - b. Which dating apps do you currently use?
- 2. If you could describe your online dating experience in a couple words, what would you say? Why?

[Perceptions, Goals, and Intentions]

- 3. Can you tell me a little bit about when you first started using dating apps?
 - a. What was your reason for beginning to use dating apps?
 - b. How have your goals or reasons for use changed over time?

- c. Currently, what are you looking for or why do you use online dating apps?
- 4. How has your perception of online dating apps changed since before you first started using them?
- 5. If you feel comfortable, could open up your bio on one of the dating apps you currently use and tell me what it says?
 - a. Why did you choose that bio?
- 6. Can you describe a couple of the photos you chose for your dating profile? Why did you choose those photos?
- 7. When people look at your profile, what do you want them to take away from it? Tell me more about that.
 - a. What do you think other people think when they look at your dating bio?
- 8. Do others in your personal network know that you use online dating apps?
 - a. How did they find out?
 - b. How do you feel about others knowing you use dating apps?
 - c. Do you have any concerns about certain people knowing you're involved with online dating?
 - i. [If yes] What are those concerns and who are you concerned about—why? Does that impact your behavior on the app or in your personal life in any way?

[On-App vs On-to-Off App Interactions]

- 9. What are the ways you interact with people on the apps?
 - a. If you had to describe it, who do you think you typically interact with?
 - b. How do you decide whether to interact with somebody or not?
 - c. Have you ever had an interaction with somebody on the app that you would've rather not interacted with? Can you tell me about that (those) specific interaction(s)?
- 10. What are the ways you interact with people you've met through online dating apps outside of the apps themselves?
 - a. [Follow-up] For example, have you ever met up with someone for an in-person date or chatted with someone on a separate social media account that you met through online dating?

- b. How did your interactions with others move off the app?
- c. Have you ever engaged in intimate behaviors with someone you met through a dating app?
 - i. [Follow-up] For example, have you ever hugged or kissed someone you met through the apps? Have you ever engaged in sexual behaviors with someone you met online?
 - ii. If you feel comfortable, would you be open to telling me about a positive intimate experience you've had with someone you met through online dating?
 - iii. If you feel comfortable, would you be open to telling me about a negative or uncomfortable intimate experience you've had with someone you met through online dating?
- 11. Did someone you met through online dating ever try to interact with you either on or off the app in a way that you did not like? Tell me more about that.
 - a. What was it about that interaction you didn't like? [Interpersonal Positive and Negative Interactions]
- 12. Can you tell me about a specific interaction or experience you had with someone you met through online dating apps that is most memorable to you—that stands out from the others? [may prompt with asking about specific interaction/experience shared in the journal entries].
- 13. Can you tell me about a positive interaction you've had with someone through online dating apps?
- 14. If you feel comfortable, would you be open to telling me about a negative interaction you've had with someone through online dating apps?
- 15. This section will be where I ask follow-up questions to specific interactions/experiences shared and reflected on in Part 1 of the study. This will involve preparatory work personalized to each participant.
 - a. Examples that might be asked here:
 - i. In [X example], you mentioned that you tried to report [Y behavior] because it made you feel [negative emotion]. Can you tell me more about that?

1. [Follow up] What did you do specifically to report [Y behavior]? Tell me about what happened after that.

- 2. How do you feel about the outcome of that situation?
- 3. Do you think that experience has shaped the ways you use and engage with dating apps and people on dating apps? If so, how?
- ii. In [X example], you shared that [person 1] made you feel really [positive emotion] in the ways that [pronoun] interacted with you on the app. You specifically mentioned [Y behavior].
 - 1. Can you tell me more about that? Why do you think [Y behavior] caused you to feel [positive emotion]?
 - 2. Have you had other experiences on the app that have made you feel [positive emotion]? How were they similar to this experience? How were they different?
- iii. In [X example], you mentioned that you felt unsafe after an experience of [negative behavior] from [multiple people], and that this then caused you to [defensive behavior].
 - 1. Can you tell me more about the other ways you've reacted or responded to feeling unsafe through experiences with online dating app experiences?
 - 2. What resources or forms of support did you look for to cope with this experience? What made you decide to seek out those types of support?
 - a. Do you feel that the dating apps do or do not support you in navigating safety concerns? Tell me more about that.

[Values]

- 16. Have you had any experiences with online dating where issues of safety and trust were salient to you (Safety/Trust)?
 - a. Can you tell me a specific example?
- 17. Have you had any experiences with online dating where you did or did not feel in control (Agency/Autonomy/Enablement)?
 - a. Can you tell me a specific example?

18. Have you had any experiences that you think had an impact on your well-being? For example, your physical, mental, or emotional health (Well-being)?

- a. Can you tell me a specific example?
- 19. Have you ever had any online dating experiences where you felt you were or were not treated with respect as a human being (Equality and Respect)?
 - a. Can you tell me a specific example?
- 20. Have you ever had an experience with online dating where you sought support or confided in someone (Peer Support)?
 - a. Can you tell me a specific example?
- 21. Have you ever had any experience using online dating apps where you felt like the app was particularly helpful or supportive of your wants and goals (Collaboration)?

 [Arab and/or SWANA Identity]
- 22. Do you feel that your identity as a [insert self-identified identity from screening survey] has shaped your experiences with online dating? If yes, in what ways?
 - a. [If no, follow up] Have you ever thought about your race or ethnicity while using an online dating app or engaging with others on-and-off the apps?
- 23. Do you feel your gender or sexuality as a [insert gender/sexuality from screening survey] has shaped your online dating experiences? If yes, in what ways?
 - a. [If no, follow up] Have you ever felt your gender or sexuality mattered when you were using the apps or interacting with others?
- 24. Do you feel your socioeconomic status has shaped your online dating experiences? If yes, in what ways?
 - a. [If no, follow up] Have you ever felt your socioeconomic status mattered when you were using the apps or interacting with others?

[Closing]

- 25. What would you say has been the most surprising or unexpected thing you've found about online dating apps?
 - a. What's been the most surprising or unexpected thing you've found about online dating generally?
- 26. How would you define consent¹¹ between individuals?

This will be the first time I say the word 'consent' aloud, unless mentioned and engaged with by the participant earlier in the interview—to not trigger anticipated responses from participants.

a. Given your definition, can you tell me about how you think consent is understood in the online dating context?

- b. How do you think consent *should* be understood, practiced or treated? Tell me more about that.
- 27. Do you have any questions for me before we end today?

Appendix D: Informed Consent Form for Interview Study

Consent to be Part of a Research Study

Project Title: Online Dating Experiences of SWANA Diaspora in the U.S.

Principle Investigator: Nadia Karizat, PhD Student, School of Information, University of Michigan

Faculty Advisor: Nazanin Andalibi, PhD, School of Information, University of Michigan

Invitation to be Part of a Research Study

You are invited to participate in an interview study. In order to participate, you must: **a)** be 18 years of age or older; **b)** live in the United States; **c)** self-identify as being part of the Arab or SWANA diaspora [but not a first-generation immigrant]. This means you were born in the United States, with at least one first-generation (immigrant) parent, grandparent, great-grandparent and so on from an Arab and or SWANA country (e.g. Syria, Egypt, Iran, Tunisia); and **d)** be an active user of one or more online dating apps.

Taking part in this research project is voluntary.

Important Information about the Research Study

Things you should know:

- The purpose of the study is to understand your online dating experiences.
- If you choose to participate, you will be asked to complete an individual interview that will be audio-recorded and transcribed (but not video recorded). The interview will occur over video or voice call of your choice.
- The interview will take approximately 60-90 minutes.
- Risks or discomforts from this research include potential discomfort discussing your online dating experiences. There are no obvious physical, legal, financial, or economic risks associated with participating in this study.
- There are no direct tangible benefits to participating in this study. However, your participation will help build an understanding of Arab- and SWANA-American dating

experiences, and serve as a starting point for future research on this population's online dating experiences, beliefs and behaviors.

• Taking part in this research project is voluntary. You don't have to participate and you can stop at any time with no penalties.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why am I doing it?

This study aims to understand the online dating experiences of Arab- and SWANA-American populations within the United States. SWANA stands for Southwest Asian and North African, commonly referred to as Middle Eastern and North African (MENA). By exploring the online dating experiences of the SWANA diaspora in the U.S., I hope to gain insight to the ways that gender, race and other intersecting identities interplay with technologies to shape online dating experiences, and to better understand implications for individuals' safety, well-being and agency.

What will happen if you take part in this study?

If you agree to take part in this study, you will be asked to complete an individual interview that will be audio-recorded and transcribed (but not video recorded). The interview will occur over video or voice call of your choice. The interview will take approximately 60-90 minutes.

How could you benefit from this study?

There are no direct tangible benefits to participating in this study. However, your participation will help build an understanding of Arab- and SWANA-American dating experiences, and serve as a starting point for future research on this population's online dating experiences, beliefs and behaviors.

What risks might result from being in this study?

There are no obvious physical, legal, financial, or economic risks associated with participating in this study. The psychological effects on you will be no greater than the effect of having a conversation about your dating experiences. If you feel uncomfortable at any time during the session, you may stop the interview or skip any questions at any time that you choose with no penalty.

How will I protect your information?

We plan to publish the results of this study. To protect your privacy, I will not include any information that could identify you in any way in reports or publications resulting from this study. To minimize risk of breach of confidentiality, all participants and their data will be given pseudonyms or participant numbers for recording and reporting purposes. Moreover, only the research team and transcribers who are bound to a confidentiality agreement will have access to the conversations. The recording of the interview and subsequent transcription will be kept on a secure U of M server. Data collected in this study will be retained for potential comparative research studies. A summary of the study's results will be made available to you upon request.

What will happen to the information I collect about you after the study is over?

We will only need your email address, and if you choose to share your name, to schedule the interview and to send you the honorarium. I will not collect any other personally identifying information.

How will I compensate you for being part of the study?

Upon your completion of this study, you will receive a \$25 Amazon gift card as a token of appreciation for your time and sharing your experience with us. This will be emailed directly to you at the email you provide me with while setting up the interview.

What are the costs to you to be part of the study?

Participation in this research study is at no cost to you.

Your Participation in this Study is Voluntary

It is totally up to you to decide to be in this research study. Participating in this study is voluntary. Even if you decide to be involved in part of the study now, you may change your mind and stop at any time. You do not have to answer any questions you do not want to answer.

Contact Information for the Study Team and Questions about the Research

If you have questions about this research, you may contact the student researcher of this study:

Nadia Karizat, PhD Student School of Information, University of Michigan

Email: nkarizat@umich.edu

The University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board has determined that this research is exempt from IRB oversight.

Your Consent

By clicking on the SUBMIT button you acknowledge that you have read this information and are willing to participate in this interview study. You are also giving permission to me to audio-record the interview and what you share with me during the interview. You are free to withdraw your participation at any time without any penalty. Upon receiving your submission, I will contact you with the email you enter below to set up a time for the interview.

[Check Box] I have read this consent form and agree to participate in this study.

E-mail address:

[SUBMIT]

Consent to be Contacted for Participation in Future Research (Optional)

I give the researchers permission to keep my email address to contact me for potential future research projects related to this current project. **This is NOT required to participate in this study.** You can click NO if you do not wish to be contacted for follow-up studies.

YES	NO

Appendix E: Informed Consent Form for Questionnaire Study

Consent to be Part of a Research Study

Project Title: Online Dating Experiences of SWANA Diaspora in the U.S.

Principle Investigator: Nadia Karizat, PhD Student, School of Information, University of Michigan

Faculty Advisor: Nazanin Andalibi, PhD, School of Information, University of Michigan

Invitation to be Part of a Research Study

You are invited to participate in a questionnaire that'll ask you to reflect and write on five online dating experiences. In order to participate, you must: **a)** be 18 years of age or older; **b)** live in the United States; **c)** self-identify as being part of the Arab or SWANA diaspora [but not a first-generation immigrant]. This means you were born in the United States, with at least one first-generation (immigrant) parent, grandparent, great-grandparent and so on from an Arab and or SWANA country (e.g. Syria, Egypt, Iran, Tunisia); and **d)** be an active user of one or more online dating apps.

Taking part in this research project is voluntary.

Important Information about the Research Study

Things you should know:

- The purpose of the study is to understand your online dating experiences.
- If you choose to participate, you will be asked to submit a questionnaire on Qualtrics with written responses.
- The questionnaire will take no more than 60 minutes, and should be completed all at once.
- Risks or discomforts from this research include potential discomfort discussing and writing about your online dating experiences. There are no obvious physical, legal, financial, or economic risks associated with participating in this study.
- There are no direct tangible benefits to participating in this study. However, your participation will help build an understanding of Arab- and SWANA-American dating experiences, and serve as a starting point for future research on this population's online dating experiences, beliefs and behaviors.
- Taking part in this research project is voluntary. You don't have to participate and you can stop at any time with no penalties.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why am I doing it?

This study aims to understand the online dating experiences of Arab- and SWANA-American populations within the United States. SWANA stands for Southwest Asian and North African, commonly referred to

as Middle Eastern and North African (MENA). By exploring the online dating experiences of the SWANA diaspora in the U.S., I hope to gain insight to the ways that gender, race and other intersecting identities interplay with technologies to shape online dating experiences, and to better understand implications for individuals' safety, well-being and agency.

What will happen if you take part in this study?

If you agree to take part in this study, you will be asked to write reflections on five online dating experiences or interactions that you choose to share through writing a brief description of the interaction/experience that captures the interaction/experience.

This will take no more than 60 minutes to complete.

How could you benefit from this study?

There are no direct tangible benefits to participating in this study. However, your participation will help build an understanding of Arab- and SWANA-American dating experiences, and serve as a starting point for future research on this population's online dating experiences, beliefs and behaviors.

What risks might result from being in this study?

There are no obvious physical, legal, financial, or economic risks associated with participating in this study. The psychological effects on you will be no greater than the effect of having a conversation about your dating experiences. If you feel uncomfortable at any time during the session, you may discontinue participating in the questionnaire at any time that you choose with no penalty.

How will I protect your information?

We plan to publish the results of this study. To protect your privacy, I will not include any information that could identify you in any way in reports or publications resulting from this study. To minimize risk of breach of confidentiality, all participants and their data will be given pseudonyms or participant numbers for recording and reporting purposes. Moreover, only the research team who are bound to a confidentiality agreement will have access to the conversations. The written reflections and descriptions shared with researchers will be kept on a secure U of M server. Data collected in this study will be retained for potential comparative research studies. A summary of the study's results will be made available to you upon request.

Anything you share with me will remain confidential, and any identifying information will be anonymized.

What will happen to the information I collect about you after the study is over?

We will only need your email address, and if you choose to share your name, to send you the questionnaire and to send you the honorarium. I will not collect any other personally identifying information.

How will I compensate you for being part of the study?

Upon your completion of this study, you will receive a \$25 Amazon gift card as a token of appreciation for your time and sharing your experience with us. This will be emailed directly to you at the email you provide me with while setting up the questionnaire.

What are the costs to you to be part of the study?

Participation in this research study is at no cost to you.

Your Participation in this Study is Voluntary

It is totally up to you to decide to be in this research study. Participating in this study is voluntary. Even if you decide to be involved in part of the study now, you may change your mind and stop at any time. You do not have to answer any questions you do not want to answer.

Contact Information for the Study Team and Questions about the Research

If you have questions about this research, you may contact the student researcher of this study:

Nadia Karizat, PhD Student School of Information, University of Michigan Email: nkarizat@umich.edu

The University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board has determined that this research is exempt from IRB oversight.

Your Consent

By clicking on the SUBMIT button you acknowledge that you have read this information and are willing to participate in this questionnaire study. You are also giving permission to me to read your written responses and what you share with us in the questionnaire. You are free to withdraw your participation at any time without any penalty.

[Check Box] I have read this consent form and agree to participate in this study.

E-mail address:

[SUBMIT]

Consent to be Contacted for Participation in Future Research (Optional)

I give the researchers permission to keep my email address to contact me for potential future research projects related to this current project. **This is NOT required to participate in this study.** You can click NO if you do not wish to be contacted for follow-up studies.

YES	NO