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To cite this article: Juliana Friend (2023) Digital privacy is a sexual health necessity: a community-engaged qualitative study of virtual sex work and digital autonomy in Senegal, *Sexual and Reproductive Health Matters*, 31:4, 2272741, DOI: [10.1080/26410397.2023.2272741](https://doi.org/10.1080/26410397.2023.2272741)

To link to this article: <https://doi.org/10.1080/26410397.2023.2272741>



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Published online: 20 Nov 2023.



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Digital privacy is a sexual health necessity: a community-engaged qualitative study of virtual sex work and digital autonomy in Senegal

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Abstract: *The COVID-19 pandemic highlighted the harm reduction potential of virtual sex work (VSW) such as video or audio calls with clients. VSW limits exposure to COVID-19 and STIs. However, sex workers using digital technologies face high risks of technology-facilitated intimate partner violence (IPV), such as non-consensual distribution of intimate images. This study explored perceived risks and benefits of VSW, including the salience of STI harm reduction. Ethnographic interviews and participant observation with self-identified cis women sex workers in Dakar between January 2018 and August 2019 informed a further period of focused data collection in June 2022, in which two key research participants and the author devised a goal of concrete community benefit: a list of contextually relevant digital privacy precautions and resources. Brainstorming this list during workshops with 18 sex workers provided prompts for participant perspectives. While participants generally preferred VSW, citing STI prevention as a key reason, most resumed in-person sex work after COVID-19 curfews lifted; social risks of digital privacy breach and potential outing outweighed physical risks of contracting STIs. Participants proposed privacy features for mobile applications to make VSW viable and benefit from STI prevention. Their reflections call on tech companies to embed values of informed consent and privacy into platform design, shifting the burden of protecting privacy from individuals to companies. This study addresses a gap in technology-facilitated IPV research, which has concentrated on Euro-American contexts. Participant perspectives can inform action in technology policy sectors to advance criminalised communities' rights to sexual health, privacy, and autonomy. DOI: 10.1080/26410397.2023.2272741*

Keywords: digital privacy, sex work, sexual autonomy, digital security, Senegal, tech justice, participatory research methods

Plain language summary

During the COVID-19 pandemic, many sex workers shifted from in-person sex work to video calls with clients who paid them for interacting with them sexually via mobile apps. Such calls are examples of “virtual sex work.” Virtual sex work carries less of a risk of sexually transmitted infections (STIs) than in-person sexual contact. But workers are also vulnerable to people using technology to do them harm. For example, clients may record a sex worker’s image without their consent, and post it online where the sex worker’s community can see it. I conducted a research study with cis women sex workers in Dakar, Senegal, to understand how these women negotiated the benefits

and risks of virtual sex work. After interviews, I worked with two research participants to create a list of digital privacy tips for sex workers. We asked other sex workers to give feedback on this list. In the process of giving feedback, they shared their perspectives on virtual sex work. For many, the risks of non-consensual capture of their image outweighed the potential health benefits of conducting sex work virtually. Participants then suggested changes that tech companies could make to their apps to make them safer for users. These suggestions highlight that tech companies need to take more responsibility for user privacy. Senegalese sex workers’ recommendations can help companies and governments

make plans to ensure that sex workers can conduct their work in privacy and with the best possible standard of health.

Introduction

During the COVID-19 pandemic, community organisations assembled harm reduction guides for sex workers, recommending virtual sex work (VSW) to reduce exposure to the virus and mitigate income loss.¹ Some sex workers shifted to VSW, although this was not feasible for many, due to barriers like cost and inconsistent internet access.^{2,3}

VSW, including video or audio calls with clients, has the potential to limit exposure to STIs, as women sex workers continue to face a disproportionate burden of HIV.⁴ However, the use of digital technology also poses other threats to sex workers' sexual and reproductive health (SRH) and rights. For example, image-based sexual abuse (IBSA), such as non-consensual recording and/or distribution of intimate images,⁵ is a form of technology-facilitated intimate partner violence that violates one's digital privacy and autonomy. IBSA against sex workers has been documented in Zimbabwe,⁶ Indonesia,³ the UK,⁷ and the EU.⁸

Both reducing rates of STIs and protecting against technology-facilitated IPV are essential to promoting sex workers' sexual health and rights. As COVID-19 restrictions on in-person interaction lifted, how did sex workers considering VSW navigate the multiple sexual health and rights implications?

This study explores these questions through a case study of sex work in Dakar, Senegal. Sex work in Senegal has a public health and legal status unique in Africa, in that it is legal, and primarily regulated by public health policy.⁹ Since 1969, sex workers have been required to register with the state and attend regular STI checks,⁹ which are recorded in *cartes sanitaires* ("health notebooks"). Regulation through public health policy has complex impacts on sex workers' health and safety. On the one hand, sex workers who register with the state are more likely to receive STI prevention services and anti-retroviral drugs.⁹ On the other hand, carrying proof of sex work involvement on one's person can increase stigma and vulnerability to police harassment.¹⁰

Preliminary ethnography, conducted prior to COVID-19 between January 2018 and August 2019 with sex workers who primarily met clients face-to-face, illustrated that digital privacy breach

and IBSA are daily concerns for Senegalese sex workers.¹¹ Sex workers cited the danger of clients planting cameras and non-consensually recording sexual encounters and disseminating recordings online. This could potentially result in outing to friends and family. Their perspectives indicated that existing digital security protections were insufficient for sex workers.¹¹

The pivot to VSW during COVID-19 sparked reflections among the participants in this initial research on the benefits and drawbacks of different labour settings. For example, as we stayed in touch over WhatsApp during the pandemic, Mami and Henriette,* two key participants in the initial ethnography, shared with me their perception that some sex workers' concerns about digital security had intensified alongside their changing use of technology. Intrigued by their reflections, I suggested we build on prior ethnography by conducting a period of focused research in Dakar. Mami and Henriette expressed enthusiasm for this suggestion. This led to a period of research conducted in June 2022, after the lifting of Dakar's COVID-19 curfews.

The study aimed to assess perceived risks and benefits of VSW, including the salience of STI harm reduction. The approach was designed in collaboration with Mami and Henriette. Both were Dakar-based sex workers, and Mami was also a community health worker. Building on research participants' concerns about insufficient digital privacy protections, Mami, Henriette and I devised a goal of concrete community benefit: a list of digital privacy precautions and resources for sex workers in Senegal. This list could benefit both those practising VSW, and those who use social media and mobile applications to find or coordinate with in-person clients. Brainstorming this "digital security toolkit" provided prompts for participant perspectives. It also provided an opportunity for participants to share recommendations for promoting digital autonomy and sexual health and rights in diverse labour settings.

Methods

Conceptual framework

Participatory action research (PAR) is one of several approaches to researching in collaboration

*Mami and Henriette are pseudonyms to protect the confidentiality of these participants.

with communities. Like community-based participatory research,¹² PAR mobilises a community in the process of research design. It engages participants in collaborative activities and elicits research insights from those activities. PAR places particular emphasis on action: in particular, taking action guided by participants' wishes.^{13,14} Mami and Henriette helped me recognise the action-oriented potential of research with sex workers in Dakar. At the beginning of the June 2022 period of data collection, they recommended taking action in the short term by identifying an output that participants could utilise after attending focus groups.

Working with sex workers to define actionable goals led to adopting participants' own concepts of digital privacy. Many sex workers conceptualise digital privacy through the lens of *sutura*, the Senegalese concept of discretion or modesty.^{11,15} *Sutura* is a key cultural value in Senegalese society. Individuals must exhibit discretion – for example, by dressing modestly or refraining from gossip – to secure status as an honourable person.^{15,16}

The concept of Sutura

Sutura is a gendered concept rooted in both pre-Islamic norms and Muslim ethical traditions. Women are more likely to be socially sanctioned for exposing intimate life.^{15,17} This gendering has been shaped by colonial efforts to control family structure and post-independence discourses positioning virtuous women as cornerstones of the modern nation.^{17,18} Today, women suspected of sexual promiscuity may be socially sanctioned for lacking *sutura*.^{11,17}

Sutura is not just a matter of individual responsibility. It is a collective obligation to protect community members against unwanted exposure.^{15,17} If damaging information surfaces about an individual, their community must prevent further dissemination of that information. For example, if a sexual assault survivor names their abuser, the survivor may themselves be criticised for lacking *sutura*, and may be denied community support at the time they need it most. However, if they refrain from naming their abuser, thereby showing discretion, the survivor is likely to receive economic support from their community and be shielded from further contact with their perpetrator.¹⁷

Sutura is complex. Intertwined with notions of honour, it may be wielded to further marginalise

groups already deemed dishonourable. Sex workers are one such group.^{11,18} Unpacking *sutura's* double edge goes beyond the scope of this study. This study focuses on two aspects of *sutura* emphasised by participants. *Sutura* highlights that (1) protection against non-consensual exposure of intimate life promotes well-being and (2) preventing such exposure is not only a matter of individual responsibility, but a collective responsibility for community support. *Sutura* resonates with sex workers' commitment to mutual aid in other contexts, from public expressions of resistance and healing,^{19,20} to organising amidst state repression,²¹ to peer support during pandemics.²²

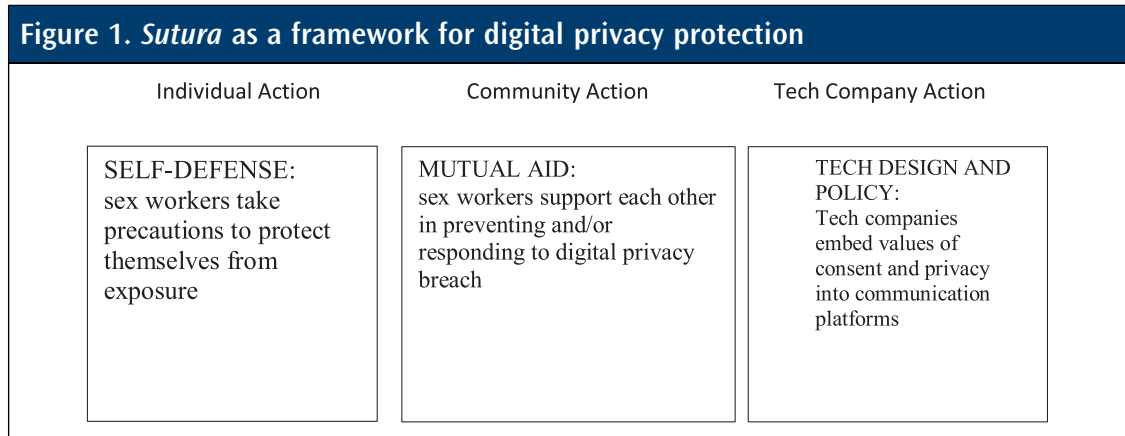
Sutura articulates how digital privacy protection and technology-facilitated IPV prevention operate at multiple scales, as summarised in Figure 1, and highlights that individuals should not bear sole burden of preventing digital privacy breach and technology-facilitated IPV. Companies with power and means should take greater responsibility for preventing unwanted online exposure. This shift in responsibility is crucial to promoting the sexual health and rights of criminalised communities.

Identification of action-oriented objectives

I conducted nine months of ethnographic interviews and participant observation with Senegalese sex workers in Dakar between January 2018 and August 2019. Findings from this ethnography directly informed a period of focused data collection in June 2022. Prior to recruiting and collecting data with Senegalese sex workers, I had acquired linguistic competencies and established contact with Senegalese community-based organisations in the summer of 2016 and the fall of 2017.

The ethnography conducted prior to the COVID-19 pandemic revealed that sex workers in Dakar experienced digital privacy breach as a daily concern and considered existing digital privacy protections insufficient.¹¹ These concerns were addressed in further qualitative research in June 2022. Mami and Henriette served a dual role as research participants and project advisors during the June 2022 research period.

In early 2022 discussions, Mami and Henriette reflected on the initial pivot to VSW during the pandemic. While they noted that some sex workers were very concerned about digital security, Mami and Henriette also feared that some



new to VSW, especially those with low literacy or digital literacy, would struggle to assess written social cues and would accept untrustworthy clients, and might be *overly* confident in their online skills. Experienced sex workers like Mami and Henriette had had informal conversations with sex workers in early COVID-19 about exercising caution in VSW. But Mami and Henriette believed that digital privacy educational needs were ongoing for sex workers in various settings. Several of their sex-working peers echoed this evaluation.

These reflections helped transform research participants’ commentaries on the insufficiency of current digital privacy protections into a concrete, actionable goal: to devise a digital security toolkit providing privacy precautions and resources for Senegalese sex workers who used digital technology, either for VSW or to facilitate in-person sex work. Mami, Henriette and I expected that in the process of soliciting group feedback to this list, we would gain insight into peers’ perspectives about the benefits and risks of VSW. To pursue this goal, Mami, Henriette and I conducted collaborative work sessions. We drafted a toolkit, which included tips to help sex workers protect their digital privacy and resources to consult in the event of digital privacy breach. Then we conducted three focus groups with Dakar-based sex workers to refine the resource toolkit and incorporate group feedback.

Participants took part in different aspects of the research process according to their interests and time availability. All shaped confidentiality

protections, requesting I refrain from audio recording for digital privacy protection. Participants influenced dissemination, highlighting that the finalised toolkit would be more easily distributed in basic text format. Mami, Henriette, and three other participants shaped the decision to include both non-registered and registered sex workers. Several interviewees, in addition to Mami and Henriette, provided feedback on data analysis. Additionally, the final portion of focus group discussion was devoted to eliciting suggestions about further questions to pose in subsequent focus groups and/or interviews. Participants in the first group brainstormed a hypothetical situation/probe: would you feel comfortable talking about experiences of image-based sexual abuse with other sex workers if you had experienced IBSA yourself? We presented this to subsequent groups. Participants also suggested avenues for further research such as interviewing tech company leaders.

Creating content of educational materials

As foundation for brainstorming, I gathered digital security educational materials curated by Hacking//Hustling, a sex worker tech advocacy organisation. These included slide decks from transgender tech advocacy association T4Tech.²³ With approval from Hacking//Hustling members, I translated these slides into French. I selected slides offering technical tips that corresponded to concerns raised in ethnography, as well as slides that discussed mutual aid, a theme that had emerged in prior ethnography.¹¹

Mami, Henriette, and I worked together to create a draft PowerPoint presentation of precautions and resources. Mami and Henriette reviewed the materials I had selected and translated. They reframed or rephrased slides to make them more relevant and comprehensible, adding key Wolof terms. For example, they flagged that the French term for “protection of private life” would be opaque to some participants. They added the Wolof term *sutura* (“discretion”). They also added the Wolof term *jappalante* (“helping each other”) to a slide on mutual aid among sex workers. Mami and Henriette also drafted original content, including advice for risk-prevention and community solidarity, and discussion prompts to encourage group participation.

Translation across contexts served two purposes. First, it harnessed technical expertise designed by and for sexually stigmatised communities. Second, explaining their revisions to Anglophone materials provided an opportunity for Mami and Henriette to articulate what mattered to their communities.

Recruitment

We organised three focus groups to solicit feedback on the toolkit, utilising a snowball sampling technique. Mami and Henriette shared the study opportunity with peers conducting sex work in Dakar. The sample of 18 self-identified cis women sex workers were of diverse ages and had varying levels of comfort with digital technology. Thirteen had registered with the Senegalese government to conduct legal sex work. Five worked in the sex industry without registering with the state. Three sex worker participants were also community health workers employed by NGOs to educate peers about SRH.

Flow of focus group discussions

Focus groups were held in participants’ homes that the group deemed discreet. I presented the PowerPoint slide show on my laptop to participants and facilitated discussion. Mami assisted with the first and third focus groups and Henriette assisted in the second. They helped explain slide content when necessary, adding precision to the questions I posed.

The discussion prompt slides that Mami and Henriette had drafted invited participants to share perspectives about the risks of in-person versus virtual sex work. For example, they drafted

one slide that asked participants directly which posed more risks, in-person or virtual sex work? Another prompt drafted by Mami and Henriette asked participants, “who has responsibility for keeping people safe online?”

Participants were also asked whether VSW was a viable labour option and, if not, what should change to make it viable. Certain slides provided springboards for participants to raise issues facing sex workers. For example, in the third focus group, a slide about official agencies where one could lodge a complaint about image-based sexual abuse prompted stories of police abuse.

Focus group interpretation

I shared my interpretation of the focus group comments first with Mami and Henriette, and then the other participants. Six participants checked my interpretation of the results. Participants helped revise a list of precautions and resources in response to group feedback. For example, they recommended we underline and bold a bullet point informing readers that making a complaint to YouTube about a particular video can be done anonymously. Overt references to sex work were redacted to ensure that the list, if found by others, would not reveal involvement in sex work. This list was shared with participants.

Follow-up interviews

I invited participants to six individual in-depth interviews to allow them to share perspectives or experiences in more depth. For example, one participant who continued to conduct VSW after the end of COVID-19 curfews provided further detail about how she locates clients.

Data analysis

We employed iterative inductive and deductive thematic analysis. Analysis was ongoing during data collection. Early analysis informed subsequent interviews and focus groups. For example, the enthusiastic reaction in the first focus group to an explanation of the advantages of Signal, a not-for-profit, end-to-end encrypted messaging service with strong user privacy protections, informed a choice to allow more discussion of Facebook’s data monetisation practices in subsequent research activities.

The framework matrix method informed data analysis. This method prioritises holistic data analysis by maintaining links between key

quotations and their contexts.²⁴ I organised key quotation excerpts recorded in meeting notes and field notes by participant and theme. I added ethnographic field note excerpts to the matrix. For example, I contextualised a participant comment about literacy challenges by noting the expressions of agreement that followed this comment. This contextualisation captured a moment of consensus that could not be conveyed by individual quotations alone.

After incorporating Mami and Henriette's comments into my interpretation of the data, four other interviewees reviewed these interpretations and signalled areas to nuance. For example, one interviewee urged me to emphasise that some sex workers had family members who provided economic support during the pandemic, allowing them to temporarily stop sex work.

Ethical considerations and confidentiality protections

Prior to initiating data collection, research was approved by the Institutional Review Board of the University of California, Berkeley on 7 January 2018 (Reference 2015-04-7467), and by the Ministry of Higher Education, Research and Innovation in Dakar, Senegal on 11 January 2018 (Reference #0000050).

The principal risk to research participants was possible harm caused by breach of confidentiality, which could cause expulsion from their homes, social rejection by family and community, reputational damage leading to loss of future employment opportunities, or legal consequences in the case of sex workers who are not registered with the government. A signed consent document would have been the only document linking the subject to the research study. Thus, oral consent was deemed more appropriate. A waiver of signed consent was approved to prevent severe harms to this stigmatised population that could result from confidentiality breach.

Oral consent was sought and obtained from all participants. During the informed consent process, the researcher orally presented and explained the consent script to individual potential research participants. She invited the participant to ask questions, clarified that the participant had the opportunity to consult friends or trusted advisors before deciding, and clarified that they could take as much time as they needed to reflect before making a decision about potential participation. As delineated in the approved

ethics protocol, the participants were not given copies of the oral consent script to keep as the script could also link their identity to the study and risk breaching confidentiality. However, participants were provided with the researcher's contact details so that they could ask questions, raise concerns, add or change instructions about data use for research, or withdraw from the study at any time.

Participants were consulted to improve privacy and confidentiality protections. For example, Mami and Henriette expressed interest in using slide content in a social media campaign about technology-facilitated IPV, while concealing their involvement in sex work. The slide content is excluded from this article as associating it with sex work via academic publication would be counterproductive. The excerpts reproduced with participant approval were translated from Wolof and French into English by the author.

No audio recordings were taken during research activities due to participant concerns about digital security. The absence of audio recording allowed participants to feel more comfortable sharing their perspectives. With participants' approval, I took hand-written notes during research activities.

Results

Context

Early in the COVID-19 pandemic, participants wrestled with whether to continue *corps à corps* ("body-to-body") sex work. They feared contracting the virus, and Dakar's night-time curfews made in-person sex work logistically difficult. Many reported decline in client demand. Some reported stopping sex work altogether during this period. They wanted but were unable to pivot to VSW. For example, one participant could not afford to buy the internet connection bundles required for VSW. Another participant continued to meet a few clients in the afternoon.

Participants who pursued VSW as an alternative labour option conducted video or audio calls with clients via WhatsApp, a messaging application owned by the parent company Meta. Some participants used this modality with existing clients. Others sought new clients on Facebook, also owned by Meta. They would receive a friend request from a Facebook user they did not know offline. After accepting the friend request, they would begin chatting one-on-one via Facebook

Messenger. Some contacts wrote romantic or seductive messages. Then they would agree to share phone numbers to connect on WhatsApp, where they would coordinate VSW. Prior to COVID-19, some participants had also used this method to meet potential in-person clients.

Some participants used Facebook profiles under their own name. Others created another profile using the same Facebook account. They would use a design as their photo, such as a heart. In lieu of their actual name, they would write a seductive or flirtatious phrase in Wolof.[†]

Participants and clients used mobile money transfer services. Clients used mobile phones to send payments, which sex workers would collect at cash service points. Services varied in terms of identification requirements; some required showing government-issued identification to retrieve payments, while others were owned by telecommunications companies that required prior registration. Prior to the June 2022 participatory research phase, night-time curfews were lifted. Demand for “body-to-body” encounters had risen. Participants could once again find potential clients in bars or restaurants at night or on Facebook. Participants reported a decrease in demand for, and price of, VSW encounters. Participants reported that the price of a virtual sexual encounter during curfews ranged from FCFA 10,000 (\$US 20) to FCFA 80,000 (roughly \$US 160). After COVID restrictions were relaxed, participants reported receiving as little as CFA 3,000 CFA (\$US 6) for a video call. However, they also reported that demand for VSW did not disappear. For example, some clients who feared the exposure risk of leaving home at night found VSW more discreet and wished to continue VSW long-term.

Overview of key findings

Participants expressed a general preference for VSW over in-person sex work. Avoidance of STIs, and HIV in particular, was cited as a key benefit of VSW. However, most participants resumed in-person sex work after Dakar’s COVID-19 night-time curfews were lifted. Notably, while economic shifts heavily influenced decision making, participants cited digital privacy risks as the primary reason for returning to in-person labour. In particular, they noted the danger of image-based

sexual abuse (IBSA). For most participants, the social risks of digital privacy breach outweighed the physical risks of contracting transmissible diseases.

Participants’ feedback on the toolkit highlighted the limitations of individual self-defence precautions. One of the insights from participants is that platforms themselves would have to change for VSW to be a viable long-term labour option.

Benefits of VSW

Reduced exposure to transmissible diseases was a salient advantage of VSW over in-person sex work. For example, before COVID-19, one 50-year-old participant conducted solely in-person visits with clients she met in bars or restaurants. She switched to WhatsApp video calls with clients when Senegal’s government instituted night-time curfews to contain the COVID-19 pandemic, first in 2020, then from January 2021 to June 2021. She cited two reasons for switching. First, the curfew made it logistically difficult to meet clients. Second, she wished to lower her risk of contracting COVID-19; “[online calls] reduce the disease really well,” she said in a focus group. She expanded in an individual interview. “With [COVID-19] you don’t get close to people. If you get close people can catch it, you don’t dare.” She gestured to her smartphone and added, “that’s why this became popular.”

Many participants cited STI prevention as a long-term benefit. One participant shared that “virtual is better ... If the condom breaks ... or if they offer you 100,000 FCFA to do it without a condom vs. 20,000 CFA with a condom, what are you going to do ... if they want skin to skin?”. Participants were aware that pursuing the economic benefit of unprotected sex comes with increased risk of contracting STIs. Virtual sex work reduces this exposure.

Other benefits cited included convenience and reduced expenses. One woman in her mid-thirties cited overlapping HIV-prevention and convenience benefits in a focus group; “body to body you have the risk of HIV. Calls are better, there’s no disease there ... calls don’t tire you out. You don’t have to wear heels, you sit in your house in security ... your health is secure.” Another participant estimated she saved 5000 FCFA (\$US 10) per week on transit costs by conducting video calls.

Another benefit of VSW was that it could be practised during curfews. Participants reflected

[†]I refrain from including participants’ actual Facebook names to protect confidentiality.

that finding clients became more difficult during COVID-related evening curfews. Many participants acknowledged that curfews put many sex workers out of work. One participant explained, “for sex workers it was even harder. You’re a sex worker, you’re in the environment, trying to approach this person, that person, get close to them ...”

Broken *sutura*, broken future: the risks of virtual sex work

Many participants cited digital privacy concerns as the principal reason for terminating VSW after COVID restrictions lifted. They perceived that the switch to VSW increased the risk of IBSA. They feared a practice known in some Anglophone contexts as “capping,” or capturing, in which clients or others will non-consensually record a live encounter.²⁵ While IBSA via capturing was also a concern in in-person sex work, participants noted strategies for mitigating this risk, such as asking clients to leave phones and electronics outside the room. In VSW, clients needed mobile phones to facilitate the encounter.

Participants reported that they had either experienced digital privacy breach or knew someone who had. One participant had a call recorded and posted to social media platforms without her consent. Another woman in her forties conveyed in a focus group that a client had recorded a video encounter without her consent and threatened to post it to Facebook if she did not reimburse his payment. When compared to contracting either COVID-19 or STIs, “exposure is more dangerous,” she reflected.

One woman commented in an individual interview, “there is no security.” If one could press a button that obscured one’s face, “that’s it. All the bars would be empty.”

Another participant cast the decision as a trade-off between digital security and sexual health; “if there were [digital] security, there would be no illness.”

Participants conveyed the devastating impact of potential digital privacy breach. One of the PowerPoint slides that Mami had written posed the question, if your private life is violated and exposed online, what would you do? One focus group participant responded that if any members of your family or friends view intimate images of you online, “ah, your future is broken.” One risks being perceived as immoral and lacking *sutura*. This could in turn cause rejection by family. Outing could also jeopardise her career

aspiration to become a tailor, she said. Responses in individual interviews mirrored this viewpoint. One participant cited two disadvantages of VSW: unstable internet connectivity and the risk of image-based sexual abuse. She commented, “a lack of *sutura*. It destroys your life.”

Focus group warnings of broken *sutura* deterred one young participant from pursuing VSW. This young woman had continued VSW after the lifting of curfews. In the focus group, she expressed a preference for VSW due to disease prevention concerns as well as its convenience and lower cost. However, she later stated in an interview that in the focus groups, “I learned a lot. I learned that video calls are not secure ... they can expose you and destroy your future ... I will reduce that ... calls are risky, even audio is risky.”

Many participants highlighted the loss of community support caused by a breach of *sutura* online. One participant had once contracted an STI from “body to body” interactions. Later she experienced IBSA with a VSW client who had captured intimate photos without consent during a video call; “He wanted to publish. I cried, cried, cried, me alone. I couldn’t tell anyone”. She contrasted the profound isolation caused by potential exposure with her access to sexual healthcare resources: “STIs, you can go to the midwife, she cures you ... the Internet is more painful.” Ironically, being exposed to everyone made her feel she could not confide in anyone.

Two participants mentioned another form of technology-facilitated IPV: impersonation. This refers to people misleading others about their identity online: for example, police officers posing as clients. Other focus group members added that this risk was present in in-person encounters as well.

Participants who used Facebook to meet potential clients exhibited varying degrees of concern about hiding private information on the website. One participant feared that seeking clients on Facebook could expose one’s work to friends or family. In an interview, she reflected, “everyone is on Facebook! Your family, your mother even.” “I tell these young girls that it’s not wise [to use Facebook to meet clients].” Both this concern and the risk of IBSA contributed to her preference for in-person sex work over VSW. In contrast, other participants did not share this concern, noting that they shared sexually explicit text or images via one-on-one messages with clients, not

Facebook profiles or timelines. Others noted some concern about identifiability, but felt confident in their mitigation strategies. For example, one participant had two profiles attached to the same account. On her work profile, she used a seductive Wolof phrase as her profile name, in order to attract clients without divulging her identity.

Participants reported that low literacy skills increased digital security risks. One participant in her twenties shared her struggles to read in both French and Wolof. If potential clients message her via Facebook Messenger, it is difficult for her to assess their intentions. “Facebook, if you haven’t gone to school, it’s not secure,” she said.

Lack of material resources constituted another disadvantage of VSW for some participants. Some participants rented private rooms, but others lived in family homes and could not afford a space of their own. They struggled to find a discreet location for VSW.

Lack of technological resources also presented disadvantages. Some participants had unreliable internet connections. One participant said that if she had money for a laptop, she could position the computer such that one’s face is not visible. Obscuring one’s face with a smartphone is more difficult, she said. (Phone stands were not widely accessible or familiar to participants.)

Economic considerations

Participants reported that demand for VSW encounters declined after COVID-19 curfews lifted. They reported that the price one could earn for a video call also declined. This was a key disadvantage of VSW for some participants. For example, one participant said in an interview, “during COVID, the prices for video [calls] were better. But now that [in-person] meetings are back, the prices for video calls are horrible. Sometimes a client will only pay 3000 CFA (\$US 6).”

Nevertheless, certain participants were curious about whether they could make VSW financially viable in the long term. They brainstormed creative strategies to identify clients willing to pay well for VSW long-term. For example, participants noted that some clients feared that leaving home at night would raise family suspicions; such clients may pay well for VSW even in the absence of curfews. Senegalese clients living abroad also provided a VSW opportunity. After pivoting to VSW during COVID curfews, one participant reported receiving 80,000 (\$US 160) for a video call with a Senegalese client living in Italy.

However, most did not pursue these strategies and returned to in-person work instead. They cited digital privacy risks and *sutura* as key reasons. For example, the participant with the client in Italy reflected, “if I wanted to, I could make good money without leaving my house”. However, she cited VSW’s increased risks of non-consensual recording as her reason for not cultivating expatriate clientele once demand for in-person sex work returned: “I’m kind of scared [of being exposed].”

The two participants who were still conducting VSW at the start of the 2022 research phase said that the benefits still outweighed the disadvantages. It should be noted that one of these participants received financial support from her family, which supplemented VSW income.

It is notable that, amid the price decline for VSW, participants still cited the risk of digital privacy breach as the central risk of VSW. This testifies to the salience of digital privacy and broken *sutura* in participant experiences.

Results of co-creation sessions: precautions and community resources

Mami and Henriette selected self-defence precautions for inclusion in the toolkit: not-for-profit, privacy-forward messaging applications; hiding one’s face in video calls when possible; and turning off apps’ localisation features. They approved my proposal to present a side-by-side comparison between non-profit Signal and for-profit WhatsApp and Facebook Messenger.

We researched entities where one could lodge a complaint of technology-facilitated IPV. We proposed: tech companies (Meta and Google), the Senegalese government’s Commission for the Protection of Personal Data (CDP), and the Cybercriminality unit of the national police. We investigated the steps involved in lodging a complaint with each.

Mami and Henriette expressed scepticism about the police cyber-criminality unit as a resource; “the girls will be afraid,” Henriette said. But she recommended leaving it in, as the goal was to “present the options and let them decide.” Mami added two contextualising slides. The first addressed well-documented police harassment of sex workers:¹⁰

Slide 1:

The duties and rights that the population has, I have them too. Stop police harassment

The second slide framed digital privacy as a human right. Mami titled the slide, “knowing your rights”:

Slide 2:
Your photos if they publish them on the internet facebook or youtube or maybe they take your photo, you have the right to go to the commission of cybercriminality and make your complaint. We have the right to defend ourselves.

In draft toolkit content, Mami and Henriette used the concept of *sutura* to frame digital privacy as a form of mutual protection and collective responsibility. Both highlighted the need for sex workers to support peers who experience digital privacy breach. I translated an English-language slide by t4Tech that resonated with their perspective; citing the organisation Equity Labs, it recommended building a “culture of mutual aid.”²⁶ Mami nodded vigorously after reading the French translation of this content. She reflected that sex workers rarely share experiences of digital privacy violation with others. But it is crucial that someone whose digital privacy is breached “can speak with you, until [she] comes back [to life]. She has to relax.” Focus group participants “have to know about helping each other, giving *sutura* to each other.”

Mami and Henriette drafted a discussion prompt to probe this theme of mutual support: “If your private life is violated ... Your life is exposed ... What is there to do? What do you do?” For the next slide, they added the Wolof terms *suturalante* (“providing discretion to each other”) and *jappalante* (“helping each other”) before and after the translated content.

Slide 3:
Suturalante, Jappalante.
Exposure can cause trauma and you have to protect your psychological and physical health so you can continue to live and work after these attacks ...
It is important, even if you are attacked, to de-stress. Give your heart room to breathe.
Because in these situations, we can practice a culture of mutual aid and accompaniment around digital security
Suturalante! Jappalante!

Mami and Henriette recommended adding the term *sutura*, or its reciprocal form *suturalante*, to the slide. Mami translated *sutura* as “confidentiality,” and said that the Wolof term will be more familiar and impactful. Henriette said that *suturalante*, the reciprocal form of *sutura*, communicates something that “privacy” does not. In her opinion, “private life and *suturalante* ... the former concerns only you, the latter, you and many others.” Similarly, Mami and Henriette expanded on the French translation of “good security hygiene”²⁶ by adding, “a person should give *sutura* [discretion] to themselves.”

The use of the terms *suturalante* and *jappalante* together is significant. It reflects the intimate link between discretion and mutual aid. In the context of this slide, *jappalante* indexes emotional support for the survivor of technology-facilitated IPV. To be a good confidante means both refraining from spreading the news of technology-facilitated violence further (e.g. *sutura*) and providing the emotional support of *jappalante*. The Wolof suffix “ante” makes both terms reciprocal. Within the conceptual framework of *sutura*, discretion is a form of reciprocity and community support among sex workers.

Focus group responses to the proposed toolkit

Participants showed enthusiasm about privacy-forward messaging applications. After viewing the slide showing a side-by-side comparison of different mobile applications, participants in all three sessions downloaded Signal during the meeting. Some participants handed their phones to the researcher or peers for technical help installing the app. They liked that Signal was not for profit.

In focus groups, participants highlighted the limitations of several self-defence measures that require individual awareness and/or action. For example, covering one’s face was difficult to implement in practice, participants said. Some clients may pay more for encounters where one’s face is visible.

Signal presented another example. Despite its appeal for peer-to-peer communication, some participants doubted whether they could convince clients to download and use Signal for VSW encounters. Also, finding new clients online required using more popular platforms like Facebook. Thus, Signal would not eliminate the use of less secure communication mediums.

Many participants also said it was unreasonable to expect individuals with limited literacy and/or time to scrupulously read privacy terms and conditions and adjust settings accordingly. Henriette said the toolkit provided “good information. We have a duty to inform people.” However, she said individual self-defence precautions have their limits; “... are people going to spend the time looking up every setting, changing it? And if you don’t have an education?” For example, while some participants considered tips about turning off localisation features useful, others highlighted that changing settings of individual mobile applications would require excessive time and/or technical knowledge.

Focus group participants questioned the viability of filing complaints of technology-facilitated IPV with police. In each focus group, one or more participants recounted stories of harassment or extortion by police. One participant recounted an experience in which she tried to help a younger sex worker who was being harassed by police despite her legal registration status; “I know my rights. She, young, maybe she did not know her rights.” Henriette recounted an incident in which police spoke loudly in the intake area, “here is a prostitute!” She reflected, “police should protect us, give us *sutura*. But instead they expose you!”

Several participants expressed that the value of the toolkit was educating sex workers about the risk and consequences of digital privacy breach. The young women who stopped VSW after attending focus groups said the toolkit “will wake people up” to risks of broken *sutura*. Another participant stated that sex workers have a responsibility to educate their peers about the risk of digital privacy breach; “there is no security ... We have to highlight that.”

Participants reached consensus on the value of mutual aid. Slides about *suturalante* and *jappalante* received unanimous support. One participant reflected on the importance of seeking emotional comfort from peers. “We don’t have somewhere to talk about what’s going on inside,” she said. “It’s true, we should help each other.”

Participant recommendations for protecting the right to privacy

Invoking *sutura*, participants recommended shifting the primary responsibility for digital privacy protection from individuals to companies. The draft toolkit included a discussion prompt composed in Wolof by Henriette: “In your opinion,

who has responsibility to *sutural* [give discretion to] the community? Women among themselves, Police, the head of Facebook, the head of YouTube, etc. ...”

Participants agreed that tech companies bear most responsibility for promoting digital privacy and security. As one participant stated, “Facebook should give us *sutura* ... young people are tired”.

Some participants suggested product design features through which tech companies could put *sutura* into practice. One participant said that since “[tech companies] should give *sutura* to the population, give *sutura* to women,” their platforms should allow “neither access to [image] capture, nor access to recording.” Some participants acknowledged that clients could still find a way to record encounters. Nevertheless, many expressed that platforms should invest resources in devising new security solutions to reduce risks of the technology-facilitated IPV and image-based sexual abuse.

Participants in the first and second focus groups recommended that the company that owns Facebook and WhatsApp reduce or cease collection and retention of user data. “That is not right,” one participant said. “it is our data, not Facebook’s data.”

Participants argued that platforms should prioritise consent. One woman who has experienced image-based sexual abuse and now practices only in-person sex work shared in an interview, “consent is so important ... you own your body. The client doesn’t own your body. The internet doesn’t own your body.” When asked what concrete steps could be taken to prioritise consent, she suggested that commonly used platforms could institute a feature that notifies users when their call is being recorded by another user. She suggested, “if there was an alert, we are recording you, then you can just close, hang up.”

A minority view proposed that tech developers should create a web and mobile application specifically for VSW. This application would disable all recording capabilities. Henriette was interested in this proposal because she doubted that Facebook would prioritise sex workers’ needs. Other participants disagreed. They felt it is important that all messaging applications adopt IBSA-prevention features. Such features should be “generalised,” “automatic,” and “for everyone.”

One participant highlighted that Facebook has the resources to invest in privacy improvements:

“[Facebook] is looking for money” and could change the platform design if it wanted to. In an individual interview, she shared that she had previously received communications and advocacy trainings from an international NGO. She reflected that experienced sex workers like her should harness their advocacy skills to convince tech companies to alter the design of their platforms: “why not launch an advocacy initiative with Facebook?” She argued that implementing sex workers’ recommendations is in Facebook’s best interests; “Facebook would benefit ... we ask Facebook to add security. In that case, more users will come.”

While participants differed in their beliefs about feasible technical changes, they agreed that marginalised individuals should not bear primary responsibility for preventing non-consensual distribution of their image. Henriette exemplified this assertion by critiquing discourses that implicitly hold survivors of IBSA responsible for their own abuse. While searching for images to make the toolkit more visually engaging, Henriette noticed an infographic by Senegal’s Commission for the Protection of Personal Data.²⁷ The image displays a laptop with smartphones strewn around it. A magenta bra is draped over the open laptop. The caption reads, “alert danger sextorsion.” The text below the image reads, “don’t reveal your nudity!” Henriette commented, “yes, men look at porn the most, didn’t you know? No I don’t like that. It’s as if they’re humiliating women with the bra ... really it’s not right.” She continued, “what they should write instead is, people should give *sutura* to the people of the world”. She then referenced other entities not mentioned in the “sextorsion” slide: “and what about Facebook? TikTok?” Henriette critiques stigma against IBSA survivors and places responsibility on tech companies and people perpetrating IBSA.

Discussion

VSW in low- and middle-income Countries (LMICs) remains under-researched, though important studies address this topic as part of the broader literature on sex work in LMICs.^{3,21,28,29} Similarly, technology-facilitated IPV research, including a seminal study led by sex workers in the European Union,⁸ has concentrated on European and US contexts³⁰ despite calls to “decolonize[e] privacy studies”.³¹ Technology-facilitated IPV is a global problem that requires digital privacy and security

solutions adapted to local contexts.³ By foregrounding calls for online *suturalante* and *jappalante*, this study contributes to the literature on VSW in the Global South by emphasising sex workers’ own vision for change.

Participant reflections comparing VSW and in-person sex work through the lens of *suturalante* draw the sexual health implications of digital privacy into relief. First, insufficient digital privacy protection impedes access to VSW’s STI-reduction benefits. For participants, STI-reduction potential is a salient advantage of VSW, but many cite increased risks of digital privacy breach and broken *sutura* as key reasons for returning to in-person sex work after COVID restrictions lifted. Amid economic factors that make in-person encounters more lucrative than virtual encounters, it is notable that unwanted exposure is such a dominant concern for participants. Some participants are interested in exploring creative ways to make VSW financially viable, but do not pursue this because it may increase the risk of broken *sutura* and potential outing. High digital privacy risks limit sex workers’ autonomy to choose a labour option that reduces exposure to STIs.

Second, discussions of broken *sutura* link poor digital privacy protection to risks of technology-facilitated IPV, echoing existing literature.^{30,32} IPV is a sexual health and rights issue.^{33,34} This includes technology-facilitated IPV such as image-based sexual abuse. Participants perceive that VSW has higher risks of technology-facilitated IPV than in-person sex work. Improved privacy protection is needed for VSW.

This study expands literature on digital security among sexually stigmatised populations. As part of a broader literature on digital privacy concerns among sexually stigmatised populations like queer youth and adults,^{35–37} and kinky communities³⁸, recent studies highlight advantages and disadvantages of VSW.^{3,13,25,28} Advantages include reduced exposure to transmissible diseases and physical violence, online movement-building, and opportunities for screening clients. Disadvantages include cyberbullying, censorship, cyberharassment, and image-based sexual abuse.

The concepts of *suturalante* and *jappalante* lend cultural specificity to what cybersecurity scholars have posited: the individualist focus in prevailing data privacy legislation overly burdens individual users.^{39–42} Other studies on technology-facilitated IPV note that cybersecurity experts have traditionally ignored gender and failed to

provide comprehensive prevention measures to IPV survivors.^{32,43–47} This places the burden of digital security protection on survivors themselves.³⁰ Concepts of *suturalante* and *jappalante* challenge this burden. Invoking Senegalese ethics of mutual discretion and mutual aid, participants call upon tech companies to assume greater responsibility for users' safety. This resonates with the European Sex Workers Rights Alliance's recent proposal for changes to tech platforms that would relieve the burden placed on users to protect themselves against image-based sexual abuse.⁸

Certain concerns held by sex workers elsewhere were not salient for study participants. Sex worker movements elsewhere highlight de-platforming and censorship of sex workers on social media, stoked by policies and automated content regulation systems that discriminate against sex-working communities.⁴⁸ However, participants in this study did not raise concerns that their accounts would be deleted or censored. One possible reason for this absence is that participants generally did not post sexually explicit images on their public-facing accounts, but rather waited for other users to make sexual or romantic overtures. They felt confident that one-on-one message content would not be censored.

Additionally, participants did not raise concerns about the role of money transfer services in *suturalante*. This contrasts with sex worker advocacy elsewhere to combat discrimination and privacy violation by financial institutions.^{49,50}

Full decriminalisation of sex work is also necessary for digital and sexual autonomy. Participants expressed fears of filing claims of technology-facilitated IPV with the police. This is one example of how rights to digital and sexual autonomy intersect with broader histories of police abuse explored elsewhere.^{10,11} It resonates with global advocacy for decriminalising sex work.^{51,52} Despite formal legalisation in Senegal, sex work is criminalised in practice. Combating state repression is crucial to the health and autonomy of sex workers in diverse labour settings.

Participants' work promoting sexual and digital autonomy is ongoing. For example, two health worker participants use toolkit excerpts on mutual aid for image-based sexual abuse in their STI peer trainings. One participant speaks about VSW and *suturalante* within her network of non-registered sex workers. Some participants have reported asking peers to join Signal and sending them the

toolkit. Mami and Henriette have consulted a US-based sex worker collective about how to start a technology-facilitated IPV social media campaign. Another participant wants to join this transnational discussion and harness her communications training to advocate directly with Meta.

The technical feasibility of participant suggestions for app re-design is beyond the scope of this study. However, participants' suggestions for embedding privacy protection into platform design emphasise a crucial paradigm shift; we must shift responsibility for digital privacy protection from individuals to companies. Companies must embody *suturalante's* ethos of mutual protection. Participants note the impracticality of individual actions like combing through terms and condition pages or switching all activities to a non-profit app that clients do not use. Even when feasible, such actions are not enough to make participants feel safe in VSW.

Limitations

Data interpretation was impacted by the lack of audio recordings. I could not draw quotations from complete transcripts, and thus drew quotations from hand-written notes taken during research activities. However, refraining from audio recording responded to participants' digital security concerns. It reflects participant input on research design.

Participants included in this study largely recruited clients through social media accounts, rather than online personal ads. Online personal ads pose unique digital safety concerns worthy of study. Further research should seek to include sex workers who find clients on specialised websites.

Conclusion

The fact that insufficient digital privacy protection is the primary reason cited by participants for avoiding long-term VSW – and its STI-prevention benefits – highlights the interconnection between health policy and tech policy. One could argue that tech policy *is integral* to health policy.

SRH researchers can harness sexual health data produced by sex workers to advocate for tech policy change. For example, by citing research on technology-facilitated IPV among sex workers, they could support legislation that increases the responsibility of tech companies for the safety of

their users and exerts pressure on these companies to strengthen privacy protections.

Tech companies' dependence on extracting user data⁵³ in vulnerable populations^{54–56} leads some scholars to contend that companies will not drive change on their own. In line with collective *sutura*, data privacy regulation should compel tech companies to strengthen privacy protection across their applications, removing the burden from users.

Acknowledgements

I would like to thank the three anonymous reviewers for their thoughtful feedback. I am indebted to the participants who shared their expertise and perspectives and who continue to promote digital and sexual autonomy for their peers. I am especially grateful to the two Senegalese participants who advised this project. While they did not wish to be named as co-authors in this publication for confidentiality reasons, they are invaluable research partners. I thank the National Clinician

Scholars Program for workshoping this article. UCSF's Medical Cultures Lab provided crucial feedback at multiple stages of this project's development, and I extend special thanks to Dr Dan Dohan, Dr Krista Harrison, Dr Sarah Garrett, and Dr Alissa Bernstein Sideman for their mentorship. Finally, I thank the Center for Long-Term Cybersecurity (CLTC) for supporting this work.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Alternative Digital Futures project at the Center for Long-Term Cybersecurity (CLTC), University of California, Berkeley.

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References

- Callander D, Meunier É, DeVeau R, et al. Sex workers are returning to work and require enhanced support in the face of COVID-19: results from a longitudinal analysis of online sex work activity and a content analysis of safer sex work guidelines. *Sex Health*. 2020;17(4):384–386. doi:10.1071/SH20128
- Platt L, Elmes J, Stevenson L, et al. Sex workers must not be forgotten in the COVID-19 response. *Lancet*. 2020;396(10243):9–11. doi:10.1016/S0140-6736(20)31033-3
- Wirawan GBS, Wardhani BDK, Pradnyani PE, et al. Behavioral changes, adaptation, and supports among Indonesian female sex workers facing dual risk of COVID-19 and HIV in a pandemic. *IJERPH*. 2022;19(3):1361. doi:10.3390/ijerph19031361
- Lyons CE, Schwartz SR, Murray SM, et al. The role of sex work laws and stigmas in increasing HIV risks among sex workers. *Nat Commun*. 2020;11(1):773. doi:10.1038/s41467-020-14593-6
- McGlynn C, Rackley E. Image-based sexual abuse. *Oxf J Leg Stud*. 2017;37(3):534–561. doi:10.1093/ojls/gqw033
- Nyabeze K, Jakaza TN, Chikoko W, et al. The resilience of female sex workers in the wake of COVID-19 in Zimbabwe. *J Asian Afr Stud*. 2022;57(3):514–528. doi:10.1177/00219096211013411
- Redman S, Waring C. Visual violence: sex workers' experiences of image-based abuses [Internet]; 2022 [cited 2023 Oct 12]. Available from: <https://nationaluglymugs.org/2022/02/10/visual-violence-sex-workers-experiences-of-image-based-abuses/>.
- Eswa. Toward safer intimate futures: recommendations for tech platforms to reduce image based sexual abuse [Internet]; 2023 [cited 2023 Oct 12]. Available from: https://www.eswalliance.org/toward_safer_intimate_futures_recommendations_tech_platforms_reduce_image_based_abuse.
- Ito S, Lépine A, Treibich C. The effect of sex work regulation on health and well-being of sex workers: evidence from Senegal. *Health Econ*. 2018;27(11):1627–1652. doi:10.1002/hec.3791
- NSWP. How sex work laws are implemented on the ground and their impact on sex workers: Senegal case study [Internet]. Global network of sex work projects; [cited 2023 Oct 12]. Available from: https://www.nswp.org/sites/nswp.org/files/senegal_legal_case_study.pdf.
- Friend J. "Don't watch this video!" Online privacy, porn, *sutura*, and health among Senegal's digital dissidents. 2022.
- Coughlin S, Smith S, Fernandez M. Handbook of community-based participatory research. Oxford: Oxford University Press; 2017.
- Blunt D, Wolf A. Erased: the impact of FOSTA-SESTA and the removal of Backpage on sex workers. *ATR*. 2020; (14):117–121. doi:10.14197/atr.201220148

14. Baum F. Participatory action research. *J Epidemiol Community Health*. 2006;60(10):854–857. doi:10.1136/jech.2004.028662
15. Mills I. Gendered honor; social death; the politics of exposure in Senegalese literature and popular culture; 2011.
16. Packer B. Hors-jeu dans le football féminin au Senegal: genre, islam et politique du corps; 2019.
17. Packer B, Friend J. Why few women in Senegal speak out about their rapists [Internet]. *The conversation*; 2021 [cited 2023 Oct 12]. Available from: <http://theconversation.com/why-few-women-in-senegal-speak-out-about-their-rapists-160269>.
18. Fouquet T. Filles de la nuit, aventurières de la cité: Arts de la citoyenneté et désirs de l'Autre à Dakar; 2011.
19. Cunt R. Chicago's Black sex workers hold each other up [Internet]. *Autostraddle*; 2021 [cited 2023 Oct 12]. Available from: <https://www.autostraddle.com/chicagos-black-sex-workers-hold-each-other-up/>.
20. The Sex Workers Outreach Project. International sex workers rights day [Internet]; [cited 2023 Oct 12]. Available from: <https://swopusa.org/wp-content/uploads/2019/02/March3rd.pdf>.
21. Parmanand S. The Philippine sex workers collective: struggling to be heard, not saved. *ATR*. 2019;12:57–73. doi:10.14197/atr.201219124
22. De Jesus Moura J, Pinto M, Oliveira A, et al. Sex workers' peer support during the COVID-19 pandemic: lessons learned from a study of a Portuguese community-led response. *Crit Soc Pol*. 2023;43(3):492–513. doi:10.1177/02610183221119955
23. t4tech resources from Hacking // Hustling Exchange: [Internet]. *Hacking//Hustling*; [cited 2023 Oct 13]. Available from: <https://hackinghustling.org/t4tech-resources-from-hacking-hustling-exchange/>.
24. Gale NK, Heath G, Cameron E, et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol*. 2013;13(1):117. doi:10.1186/1471-2288-13-117
25. Jones A. Sex work in a digital era. *Sociol Compass*. 2015;9(7):558–570. doi:10.1111/soc4.12282
26. Doxxing Self Defense [Internet]; [cited 2023 Oct 13]. Available from: <http://soph.info/hh/Doxxing-Self-Defense.pdf>.
27. Commission de protection des données personnelles. Sextorsion, ne dévoile pas ta nudite. [cited 2023 Nov 5]. Available from: <https://www.cdp.sn/content/sextorsion-ne-devoile-pas-ta-nudite-0>.
28. Motterle L. From the streets to the screen: sex work, stigma, desire and COVID-19 in Mexico city. *Bull Latin Am Res*. 2023;42(3):426–439. doi:10.1111/blr.13440
29. Gregorio V. Reaffirming womanhood: young transwomen and online sex work in the Philippines. In: Radics GB, Ciochini P, editors. *Criminal legalities and minorities in the global south: Rights and Resistance in a Decolonial World*. London: Palgrave Macmillan; 2023. p. 253–269.
30. Slupska J, Shulruff T, Hairston T. Cybersecurity must learn from and support advocates tackling online gender-based violence → UNIDIR [Internet]. UNIDIR; 2021 [cited 2023 Oct 12]. Available from: <https://unidir.org/cybersecurity-must-learn-from-and-support-advocates-tackling-online-gender-based-violence/>.
31. Arora P. Decolonizing privacy studies. *Tel New Med*. 2019;20(4):366–378. doi:10.1177/1527476418806092
32. Woodlock D. The abuse of technology in domestic violence and stalking. *Viol Against Women*. 2017;23(5):584–602. doi:10.1177/1077801216646277
33. Fast facts: preventing intimate partner violence [Violence prevention|Injury center|CDC [Internet]; 2023 [cited 2023 Oct 12]. Available from: <https://www.cdc.gov/violenceprevention/intimatepartnerviolence/fastfact.html>.
34. Hasstedt K, Rowan A. Understanding intimate partner violence as a sexual and reproductive health and rights issue in the United States [Internet]. *Guttmacher Institute*; 2016 [cited 2023 Oct 12]. Available from: <https://www.guttmacher.org/gpr/2016/07/understanding-intimate-partner-violence-sexual-and-reproductive-health-and-rights-issue>.
35. Cho A. Default publicness: queer youth of color, social media, and being outed by the machine. *New Med Soc*. 2018;20(9):3183–3200. doi:10.1177/1461444817744784
36. Lerner A, He HY, Kawakami A, et al. Privacy and activism in the transgender community [Internet]. In: *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery; 2020 [cited 2023 Oct 12]. p. 1–13. <https://doi.org/10.1145/3313831.3376339>
37. Vivienne S, Burgess J. The digital storyteller's stage: queer everyday activists negotiating privacy and publicness. *J Broadcast Electron Media*. 2012;56(3):362–377. doi:10.1080/08838151.2012.705194
38. Sundén J. Digital kink obscurity: a sexual politics beyond visibility and comprehension. *Sexualities*. 2023;1363460722112441. doi:10.1177/13634607221124401
39. Baik S. Privacy for all: enshrining data privacy as a civil right in the information age; 2021.
40. Mantelero A. From group privacy to collective privacy: towards a new dimension of privacy and data protection in the big data era [Internet]. In: Taylor L, Floridi L, van der Sloot B, editors. *Group privacy: new challenges of data technologies*. Cham: Springer International; 2017 [cited 2023 Oct 12]. p. 139–158. doi:10.1007/978-3-319-46608-8_8
41. Regan PM. Privacy as a common good in the digital world. *Commun Soc*. 2002;5(3):382–405.
42. Baik S, Mohammed L. American privacy: What's next for the ADPPA with Sophia Baik.
43. Millar K, Shires J, Tropina T. Gender approaches to cybersecurity [Internet]. *United Nations Institute for*

- Disarmament Research; 2021. Available from: <https://unidir.org/publication/gender-approaches-to-cybersecurity/>.
44. Freed D, Palmer J, Minchala DE, et al. Digital technologies and intimate partner violence: a qualitative analysis with multiple stakeholders. *Proc ACM Hum-Comput Interact* 2017;1(CSCW):46:1–46:22.
 45. Freed D, Palmer J, Minchala D, et al. “A stalker’s paradise”: how intimate partner abusers exploit technology [Internet]. In: *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery; 2018 [cited 2023 Oct 12]. p. 1–13. doi:10.1145/3173574.3174241.
 46. Matthews T, O’Leary K, Turner A, et al. Stories from survivors: privacy & security practices when coping with intimate partner abuse [Internet]. In: *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery; 2017 [cited 2023 Oct 12]. p. 2189–201. doi:10.1145/3025453.3025875.
 47. Tseng E, Sabet M, Bellini R, et al. Care infrastructures for digital security in intimate partner violence [Internet]. In: *CHI Conference on Human Factors in Computing Systems*. New Orleans LA USA: ACM; 2022 [cited 2023 Oct 12]. p. 1–20. doi:10.1145/3491102.3502038.
 48. Blunt D, Stardust Z. Automating whorephobia: sex, technology and the violence of deplatforming: an interview with hacking//hustling. *Porn Studies*. 2021;8(4):350–366. doi:10.1080/23268743.2021.1947883
 49. Holston-Zannell LB. PayPal and Venmo are shutting out sex workers, putting lives and livelihoods at risk | ACLU [Internet]. American Civil Liberties Union; 2021 [cited 2023 Oct 12]. Available from: <https://www.aclu.org/news/lgbtq-rights/paypal-and-venmo-are-shutting-out-sex-workers-putting-lives-and-livelihoods-at-risk>.
 50. Holston-Zannell LB. How mastercard’s new policy violates sex workers’ rights | ACLU [Internet]. American Civil Liberties Union; 2021 [cited 2023 Oct 12]. Available from: <https://www.aclu.org/news/lgbtq-rights/how-mastercards-new-policy-violates-sex-workers-rights>.
 51. Mgbako C, Bass K, Bundra E, et al. The case for decriminalization of sex work in South Africa. *Geo J Int’l L*. 2013;44:1423.
 52. Begum R, Bibi S. Destigmatize, decriminalize, decarcerate: a racial justice lens on sex worker rights and harm reduction [Internet]. Philadelphia Red Umbrella Alliance; [cited 2023 Oct 12]. Available from: <https://www.phillyrua.com/blog/destigmatize-decriminalize-decarcerate-a-racial-justice-lens-on-sex-worker-rights-and-harm-reduction>.
 53. Zuboff S. *The age of surveillance capitalism: the fight for a human future at the new frontier of power*. New York: Public Affairs; 2019.
 54. Coleman D. Digital colonialism: the 21st century scramble for Africa through the extraction and control of user data and the limitations of data protection laws. *MJRL*. 2019;24(2):417. doi:10.36643/mjrl.24.2.digital
 55. Madianou M. Technocolonialism: digital innovation and data practices in the humanitarian response to refugee crises. *Social Med + Soc*. 2019;5(3):205630511986314. doi:10.1177/2056305119863146
 56. Nothias T. Access granted: Facebook’s free basics in Africa. *Med Cult Soc*. 2020;42(3):329–348. doi:10.1177/0163443719890530

Résumé

La pandémie de COVID-19 a mis en lumière le potentiel de réduction des risques que possède le commerce du sexe virtuel, comme les appels vidéo ou audio avec des clients. Ce type d’activité limite l’exposition au COVID-19 et aux IST. Néanmoins, les professionnels du sexe qui utilisent des technologies numériques font face à des risques élevés de violence exercée par un partenaire intime (VPI) facilitée par la technologie, comme la distribution non consensuelle d’images intimes. Cette étude a exploré les risques et les avantages perçus du commerce du sexe virtuel, notamment l’importance de la réduction des risques d’IST. Des entretiens ethnographiques et l’observation participante avec des professionnelles du sexe cis auto-identifiées à Dakar entre janvier 2018 et août 2019 ont guidé une période ultérieure de recueil de données ciblées en juin 2022, pendant laquelle

Resumen

La pandemia de COVID-19 destacó el potencial de reducción de daños del trabajo sexual virtual (TSV), como llamadas de video o de audio con clientes. El TSV limita la exposición a COVID-19 y a las ITS. Sin embargo, las trabajadoras sexuales que utilizan tecnologías digitales enfrentan altos riesgos de violencia de pareja íntima (VPI) facilitada por tecnología, tal como la distribución no consensual de imágenes íntimas. Este estudio exploró los riesgos y beneficios percibidos del TSV, incluida la prominencia de reducción de daños de ITS. Entrevistas etnográficas y observación participante con cis mujeres que se identificaron como trabajadoras sexuales en Dakar entre enero de 2018 y agosto de 2019 informaron un período adicional de recolección de datos enfocada en junio de 2022, durante el cual dos participantes clave de la investigación y el autor

deux participantes clés à la recherche et l'autrice ont défini un objectif d'avantage concret pour la communauté: une liste de précautions et de ressources contextuellement pertinentes en matière de confidentialité numérique. Une réflexion sur cette liste pendant des ateliers avec 18 professionnelles du sexe a permis de recueillir les points de vue des participantes. Si les participantes préféraient en général le commerce du sexe virtuel, citant la prévention des IST comme raison principale, la plupart avaient repris le travail du sexe en personne après la levée des couvre-feux liés au COVID-19; les risques sociaux de violation de la vie privée numérique et de révélation potentielle l'emportaient sur les risques physiques de contracter une IST. Les participantes ont proposé des fonctionnalités de protection de la vie privée pour les applications mobiles afin de rendre viable le commerce du sexe virtuel et de bénéficier de la prévention des IST. Dans leurs réflexions, elles en appellent aux entreprises technologiques afin qu'elles intègrent les valeurs de consentement éclairé et de respect de la confidentialité dans la conception des plateformes, transférant ainsi la charge de la protection de la vie privée des individus vers les entreprises. Cette étude comble une lacune dans la recherche sur la VPI facilitée par la technologie, qui s'est concentrée sur les contextes européens et américains. Les perspectives des participantes peuvent guider l'action dans les secteurs de la politique technologique pour faire progresser les droits de communautés criminalisées à la santé sexuelle, à la vie privée et à l'autonomie.

idearon el objetivo de beneficio comunitario concreto: una lista de precauciones y recursos de privacidad digital contextualmente pertinentes. Una lluvia de ideas sobre esta lista en talleres con 18 trabajadoras sexuales produjo preguntas para indagar acerca de las perspectivas de las participantes. Aunque las participantes generalmente preferían el TSV, citando la prevención de ITS como la razón principal, la mayoría reanudó el trabajo sexual presencial después que se levantaron los toques de queda por COVID-19; los riesgos sociales de violación de la privacidad digital y la posible delación superaron los riesgos físicos de contraer ITS. Las participantes propusieron funciones de privacidad para aplicaciones móviles a fin de hacer el TSV viable y beneficiarse de la prevención de ITS. Sus reflexiones instan a las empresas tecnológicas a incorporar los valores de consentimiento informado y privacidad en el diseño de plataformas, y así transferir a las empresas la carga de proteger la privacidad de cada persona. Este estudio aborda la brecha en la investigación sobre la VPI facilitada por tecnología, que se ha concentrado en contextos euroamericanos. Las perspectivas de participantes pueden influir en la acción en sectores de políticas sobre tecnología para promover los derechos de comunidades penalizadas a la salud sexual, la privacidad y la autonomía.