

**Digital Exclusion,  
Gender Oppression,  
and How Social  
Workers can  
Advocate for Digital  
Feminism in China**

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CHENXI YANG

## ABSTRACT

For the past decade, the pace of China's digital and technological development has been rapidly increasing. While this growth creates economic opportunities, it has negative impacts for Chinese women who are marginalized at the intersections of gender, class, and geographic location. This paper adopts an intersectional feminist lens to examine how Chinese women experience digital exclusion and gender oppression in the digital era. To do so, it discusses (1) existing technologies that reflect and perpetuate gender stereotypes through gendered technology design, (2) digital spaces and media censorship that disenfranchise women, and (3) AI surveillance and unfair labor practices that oppress women.

This paper calls for social work practices in digital feminism at the micro, mezzo, and macro levels, specifically in promoting gender equality in training and design, leading feminist initiatives, and promoting digital accessibility and data protection.

*Keywords: digital feminism, feminism, digital age, gender, social work, intersectionality*

**A**s new technologies, digital innovations, online platforms, and technology companies emerge in China, women face increasing challenges and exclusions, such as the digital divide, barriers to access, underrepresentation in tech-related fields, technology-enabled violence, and privacy concerns (UNESCO et al., 2022). Given that China is ranked 102 out of 146 countries in gender inequality (World Economic Forum, 2022), social workers who advocate for social and gender justice must take action to advocate for women in China who are excluded and oppressed in the digital age. This entails rethinking technologies and digital spaces and understanding patriarchy and other forces of oppression exacerbated by the digital age.

This paper applies an intersectional feminist lens to examine how women in China experience digital exclusion and social oppression in the digital era and proposes social work practice interventions. Legal theorist Kimberle Crenshaw first coined the term “intersectionality,” which explores discrimination based on race, gender, and other markers of identity. An intersectional framework acknowledges that people experience varying degrees of marginalization due to their multiple intersecting identities (Bowleg, 2021).

This paper will use numerous references to technical definitions. First, *digital exclusion* describes a lack of access to the information and communication technology required for full participation in society (Sanders, 2020), and it also refers to being marginalized by the design of technologies. Second, *feminism*, as defined by D’Ignazio and Klein, is a term for “the diverse and wide-ranging projects that name and challenge sexism and other forces of oppression, as well as those which seek to create more just, equitable, and livable futures” (2020, p. 6). Third, oppression includes “systematic mistreatment of certain groups of people by other groups” that occurs because of an unequal distribution of power wherein one group controls the

institutions of “law, education, and culture, and uses its power to systematically exclude other groups” (D’Ignazio & Klein, 2020, p. 8).

The first part of this paper will describe the ways in which technology development in China has had negative effects on Chinese women, including a discussion on how technologies reflect, perpetuate, and create gender oppression. The second part of the paper advocates for *digital feminism*, which means applying feminism in the digital context to combat patriarchy and other forms of oppression. This part also delineates how to lead feminist actions in digital technologies and strive for gender equality and social inclusion and outlines ways in which social workers can help to empower women and challenge technological oppression.

## HOW DO WOMEN EXPERIENCE GENDER OPPRESSION AND DIGITAL EXCLUSION?

Gender biases in new technologies are likely the result of the male-dominated technology design industry in China (UNESCO et al., 2019). The biases reflected in these technologies harm women by perpetuating gender norms. As one example, a proliferation of voice assistants (VAs) designed by Chinese technology companies such as Alibaba, Baidu, and Xiaomi have dominated Asian markets (Kinsella, 2019). VA speakers are designed for spoken interactions with users and mimic natural human speech on a day-to-day basis. Baidu and Xiaomi’s VAs, which are projected as female both in name and sound of voice, interact with users in a cooperative and submissive manner (UNESCO et al., 2019). The feminization of VAs is designed to cater to the needs of consumers who want to “be the bosses of it” and are therefore more likely to “opt for a female interface” (Hempel, 2015, para. 9). VAs further perpetuate discriminatory gender norms by sending a signal that women are “obliging, docile and eager-to-please helpers” and are “available at the touch of a button or with a blunt voice command like ‘hey’ or ‘OK’” (UNESCO et al., 2019, p. 106-107). This reinforces the cultural norm that women are tolerant of poor treatment and should be placed in a subordinated service position.

## ONLINE SEXUAL HARASSMENT AND MEDIA CENSORSHIP DISENFRANCHISING WOMEN

In addition to technologies that perpetuate undesirable gender norms, online sexual harassment and media censorship greatly harm women. According to a 2017 survey with 1,277 Chinese college student respondents, about 33.2% experienced some form of online sexual harassment, such as sexualized messages or non-consensual pornographic images; among these sexual harassment survivors, about 71.0% identified as women, showing how the digital age increases the gendered risk of being sexually harassed (Ye et al., 2018). Additionally, the circulation of inappropriate content, such as AI-generated “deepfakes,” has been used to threaten, blackmail, and abuse women, in addition to harming their careers (Lucas, 2022). Numerous sellers on online platforms like Baidu have developed e-commerce chains that offer personalized deepfakes by swapping the faces of female celebrities or private civilians in pornographic movies at affordable prices (Chen, 2019). Ninety-six percent of deepfake videos in the survey contained non-consensual pornographic images, and one hundred percent of these videos were of women (Ajder et al., 2019).

Remote employment and digital platforms for coworker interactions have also increased incidents of sexual harassment toward women (UNESCO et al., 2022). In a survey titled *Sexual Harassment Experienced by Female Journalists* (N=416), 83.7% of the women surveyed experienced gender-based harassment online, and 18.2% experienced it more than five times in the remote workplace (Ma, 2022).

## AI MAKES WOMEN VULNERABLE IN THE WORKPLACE

The use of AI in the workplace contributes to a culture that does not consider workers’ personal data as separate from their professional lives. Additionally, it stratifies employees and employers as the latter group uses AI to track workplace permanence and make decisions about wages, promotions, and dismissals (Bales & Stone, 2020). These

employer-employee power dynamics further marginalize workers, and women in particular are the most vulnerable. Although the *Civil Code of the People's Republic of China* requires employers to implement informed consent of the collection and processing of employees' personal data, workers hardly reject unfair labor practices for fear of retaliation (Tang, 2021). Retaliation from employers, which includes demotion or even termination from current work, further marginalizes vulnerable employees.

In these situations, women may have the most to lose by challenging their employers. As previously mentioned, Chinese women workers earn lower wages, receive less educational training, and are less likely to be promoted than men (World Economic Forum, 2022). This means women bear the devastating risks of retaliation more heavily and are more likely to accept unfair labor practices, including risks of personal data invasion. As a result of AI, women workers are especially vulnerable to the effects of stratification.

## HOW DO SOCIAL WORKERS ADVOCATE FOR DIGITAL FEMINISM?

Although digital technologies can increase an individual's independence politically, socially, and financially, this can only happen when they are able to use technology autonomously (UNESCO et al., 2019). Unfortunately, technologies, media, digital devices, and innovations in the digital age, which are rooted in an oppressive social structure, widen the power divide between men and women, government and citizens, urban people and rural people, and employers and employees. As previously stated, women who are marginalized at the intersections of gender, class, and geographic location are the most vulnerable in the digital age. They are negatively impacted by stereotypical gender norms coded into technologies, online sexual harassment and media censorship, the urban-rural digital divide, and AI surveillance. In these conditions, digital development reinforces patriarchal norms and perpetuates power asymmetry.

According to the code of ethics for social workers in China, social workers accept responsibility for advancing social justice and protecting human rights (Zhu & Wen, 2006). Thus, social workers are encouraged to think from an intersectional feminist perspective in order to address the root causes of issues in the digital era: patriarchy and other oppressive forces created by culture, government, and society. Social work interventions call for schools, corporations, NGOs, and policy institutions in China to advocate for women's representation in all spaces and to develop social welfare programs (Fan, 2019; Lu & Bao, 2022). In the digital age, social workers should stand by women to challenge oppressive power and adopt digital feminist practices. Strategies for digital feminism inside and outside digital spaces include conducting gender equality training, promoting design justice in technologies, leading online initiatives, bridging the digital gap, and promoting personal data protection.

## LIMITATIONS SOCIAL WORKERS MAY FACE IN CHALLENGING DIGITAL OPPRESSION

### GOVERNMENT CENSORSHIP

Feminist activists in China have taken the initiative to challenge gender oppression through social media (Ma, 2022). For example, since 2018, Chinese women have engaged in the #MeToo Movement, a hashtag campaign to challenge sexual violence, patriarchy, rape culture, and male-dominated values (Han, 2018; Yin & Sun, 2021). The narratives of their experiences went viral on social media. In 2018, more than 36,000 online articles related to the #MeToo Movement were published on Chinese social media (Ma, 2022).

However, Chinese authorities silenced the voices of survivors and activists before the movement was able to reach a wider audience. Authorities became intolerant of the public outcry, which criticized their lack of effective response to sexual violence, and feared "social unrest" or that the public would question their legitimacy. Consequently, authorities retained tight control over the flow of information on social

media platforms (Ma, 2022) by blocking and removing “MeToo” and “sexual assault” -related posts and closing activists’ social media accounts as a way to silence supporters (Fileborn & Loney-Howes, 2019). As a result, survivors and activists suffered from a lack of institutional and legal support (Yin & Sun, 2021).

## THE URBAN-RURAL DIGITAL DIVIDE

The digital divide between urban and rural China has widened over the years, given that the rural population only represents 28% of Chinese Internet users (CNNIC, 2022). This divide is pronounced for rural Chinese women, who are more underprivileged and disenfranchised than urban middle-class women. In the digital age, rural women face increasingly more barriers to accessing information and communications technology due to poor infrastructure in technology, connection costs, increasing economic inequality, digital literacy issues, norms of perceived female inferiority, and a long history of rural-urban disparity (Yang & Du, 2021). The digital divide accelerates urban-rural gender inequality.

The “gendered digital divide” and digital exclusion, which varies substantially between urban and rural areas, prevent rural women from benefiting from digital innovations (Yang & Du, 2021, p. 2,520). China’s major digital payment services and innovations have supported millions of small businesses and entrepreneurs in China. Some examples include Ant Financial, a lender for small businesses that supports low-income earners, and Alipay, which offers a low-risk money account to provide investment for individuals (OECD, 2018). However, rural women without digital outlets are unable to access online loans and investments to support their businesses. Without digital access, rural women will not be able to access these services, and as a result, urban-rural gender inequality in resources, opportunity, and capability will continue to widen.



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## GENDER EQUALITY IN TRAINING AND DESIGN

This section suggests three digital feminist interventions to increase women's representation in STEM, AI, and coding/programming, which include (1) providing gender equality training that addresses gender stereotypes, (2) increasing women employees' skill sets and readiness for the AI field, and (3) enhancing women's roles in the technology field through recruitment, equal wage, and promotion opportunities.

### MICRO PRACTICE INTERVENTIONS *GENDER EQUALITY EDUCATION*

Gender norms suggesting that women are subordinate to men hinder women's participation in STEM fields. They lead people to believe that the STEM field opposes these gender roles (Tandrayen-Ragoobur & Gokulsing, 2021) and perpetuate the idea that women should find secure jobs with regular working hours rather than working in high-intensity environments that require advanced technical skills (Xu, 2020). Furthermore, Chinese higher education hardly provides courses addressing gender norms; these institutions overlook the importance of gender equality education, since the post-graduation employment rate is considered the de-facto indicator of a university's educational quality and outcome (Zhang, 2020).

School social workers must intervene by creating gender equality training and advocating for institutions to include this type of training, which would trickle into STEM fields. Gender equality training should not just be held in urban areas, but also in rural settings, given that gender norms are most detrimental in rural China (Li, Y., 2021). Research has shown that providing gender equality training is effective in changing students' attitudes toward STEM (Ikkatai et al., 2021). School social workers should also help school curriculum decision-makers and education departments understand how gender equality training can improve female students' competitiveness and interest in STEM professions and thus improve the schools' quality of education and

prestige. The purpose of gender equality training is to help students have a better understanding of gender norms as well as the importance of education and careers for women. Additionally, conducting gender equality training for teachers can make teachers aware of their own subconscious biases and prevent them from perpetuating traditional gender stereotypes and sustaining the patriarchy.

While STEM education can increase students' readiness and competitiveness in AI fields (Ikkatai et al., 2021), exposure to STEM careers can grow interest in pursuing careers involving technology and engineering (Blotnicky et al., 2018). Therefore, social workers should advocate for increasing STEM educational resources in the form of coursework, teaching staff, and career counselors. This approach will inspire more women students to challenge patriarchy and increase their competitiveness and interest in entering the technology industry.

### *PROMOTING DESIGN JUSTICE*

Social workers can disrupt the male-dominated technology market by promoting design justice in technologies. Design justice “rethinks design processes, centers people who are normally marginalized by design, and uses collaborative, creative practices to address the deepest challenges our communities face” (Design Justice Network, 2018, para. 2).

With a trained background in gender justice, data justice, and social inclusiveness, social workers can participate in software design. Desmond U. Patton (2019), a professor at Columbia

University School of Social Work, calls for bringing social work scholars to the AI table, and explains that AI designers need “community support and buy-in” (para. 5). Social work scholars can utilize knowledge learned from social work school, such as understanding a person within a community context and uncovering any biases members may have toward that community (Patton, 2019). Social workers should also encourage companies to re-examine the gender biases encoded in

technologies. They could do this through workshops on specific topics such as “gender norms reinforced by technologies” or by promoting accessible, gender-friendly technologies for diverse and inclusive communities.

In addition to allowing social workers to participate in design, inviting women to the table is another form of digital feminism for enterprise social workers. Voices should be heard not only from female scholars, engineers, and designers, but also from women who come from underprivileged, low-resourced communities. Enterprise social workers collaborating with women helps empower and center the voices of women who have been directly impacted by the outcomes of the design process and helps them seek liberation from the oppressive patriarchal system (Costanza-Chock, 2018).

## MEZZO PRACTICE INTERVENTIONS

### *AI TRAINING FOR WOMEN*

Rapid digital development requires that employees be equipped with updated technical skills. Therefore, those who do not receive technical training are adversely affected. There is already a large gender gap in AI skills training (Li, J., 2021). On top of this, technology companies do not provide equal AI training for women, resulting in a gender gap in promotions, positions, and roles. Data from LinkedIn (2020) suggests that the AI skills penetration rate for women to men, which reflects the “prevalence of AI skills across occupations,” is about 0.85 to 1.02 in China (Zhang et al., 2021, p. 218). A study conducted in manufacturing companies in

Shanghai, China discovered that the AI skills training per season for men to women is about 6.12 to 1.58, highlighting how firms indicate a gender preference in staff training (Li, J., 2021). Lack of training is a barrier for women, as fewer women trained in AI means fewer women are eligible for promotion in tech firms. This perpetuates male domination of the tech industry as women are underrepresented and continue to hold less vital roles (UNESCO et al., 2022).

Digital feminist practice includes intervening in the male-dominant industry by providing

the required training for women marginalized in the workplace and underemployed due to lack of training or formal education. Social workers from NGOs and NPOs can seek partnerships with educational institutions that have expertise as one solution. They can provide training in diverse subjects, such as AI, software skills, management, and human resources. They can also assist women in earning professional certifications in information technology and management, such as *System Architect*, *Information System Project Manager*, and *Project Management Professional*, to increase women's qualifications for vital roles in companies. This training can be provided "after hours" to meet the needs of domestic housewives or women who work during business hours.

### *INCREASE WOMEN'S REPRESENTATION IN THE AI JOB MARKET*

Due to long-standing gender stereotypes in the male-dominant tech industry, increasing women's AI skills cannot promise gender-equal hiring outcomes. The top 10 Chinese Internet companies' public figures indicate that their ideal employees are as young, able-bodied males (Li, C., 2021). To increase women's representation in tech companies, social workers need to work in human resources to recruit women for senior roles and advocate for higher working conditions and opportunities for women.

Social workers can also help to correct gender bias during the hiring process, enhance implementation of anti-discrimination policies in the workplace, and advocate for increasing representation of female employees in areas of employment, leadership, management, and engineering. Social workers not only support women in recruitment, but also advocate for better wages, working conditions, and promotion opportunities as a way to promote gender equality and inclusiveness in the workplace.

## FEMINIST ACTIVISM

### MICRO PRACTICE INTERVENTIONS

Regardless of the #MeToo Movement being blocked on social media by the government, social workers can still lead strategic digital feminist initiatives to create and sustain a more equitable environment to end gender and power-based violence. They can do this through disrupting algorithms, online advocacy and prevention, and workplace innovation and regulation.

#### *DISRUPTING THE ALGORITHM*

Social workers are encouraged to come up with innovative ideas that allow more survivors of sexual abuse and activists' voices to be heard in the digital space. One method is to embolden supporters of the #MeToo Movement to disrupt the algorithm. Ma (2022) suggests ways to avoid government surveillance tools by rotating the images of certain censored #MeToo cases to trick online platforms' detection algorithms, putting censored content on a blockchain, and using open-source repository hosting services, like GitHub. These innovations were helpful in circumventing censorship and thus supporting feminist movements (Ma, 2022).

#### *ONLINE ADVOCACY AND PREVENTION*

Social workers should especially reach out to sexual violence survivors who lack access to digital outlets due to media censorship. Social workers can support these survivors by creating advocacy projects that challenge forms of patriarchal and institutional oppression. They can also provide online service options such as virtual crisis and mental health counseling,

intervention programs, support groups, and legal assistance. Additionally, social workers should train survivor advocates and volunteer peer educators to respond to individuals who are experiencing sexual, intimate partner, and gender-based violence. Trained advocates

will then assist survivors by safeguarding their rights and exploring various options to identify their unique needs. These trained advocates can also accompany individuals to report to law enforcement and guide them through the legal process.

In addition, social workers can play a role in digital harm reduction. Social workers and trained staff can host virtual sexual violence response prevention programs, such as sexual assault awareness and relationship violence awareness events, prevention-focused training, and education workshops. The purpose of these programs would be to help resist the power of abuse and educate the community about healthy relationships and sexual health in an honest and judgment-free way (Columbia Health). Social workers should also educate women about different forms of sexual violence in order to help break the social stigma around rape culture.

## MEZZO PRACTICE INTERVENTIONS *WORKPLACE INNOVATION AND REGULATION*

As previously discussed, increasing remote work exposes women to higher risks of online sexual harassment. This is further exacerbated by the lack of actions and policies against online sexual harassment in Chinese companies (Ma, 2022).

Enterprise social workers are needed to develop digital innovations and write policies addressing the new risks of online sexual harassment. Enterprise social workers can encourage companies to adopt AI systems that detect and track abusive, harassing language in company documents, emails, chats, texts, and comments. Referring to practices from other countries, such as Brazil-based *Think Eva*, an AI and human interaction combination that was designed to monitor and address harassment, and Canada-based *Botler* AI, which utilizes deep learning to provide free and accessible support to survivors, could be helpful for Chinese companies in selecting an AI system to combat harassment (Das, 2020). Enterprise social workers can also encourage companies to

develop apps such as Callisto and AllVoice, which allow employees to report harassment (Das, 2020).

## MACRO PRACTICE INTERVENTIONS *POLICIES AND PROCEDURES FOR GRIEVANCES*

Enterprise social workers can write new policies and procedures, including reporting and grievance mechanisms, in order to support employees to take appropriate action, reassure survivors, accuse and punish perpetrators, and help prevent future online harassment.

## DIGITAL ACCESSIBILITY AND DATA PROTECTION MICRO PRACTICE INTERVENTIONS

### *CONNECTING LOCAL COMMUNITIES TO DIGITAL RESOURCES*

Community social workers should connect low-income communities and individuals to local libraries which can expand electronic check-out services and technology learning courses. Supporting individuals through technology training will help social workers engage with these populations. Gibson et al. (2020) suggest that people will be more willing to use new technologies if they receive some type of formal training.

### *DIGITAL LITERACY WORKSHOP AND INTERNET SAFETY TRAINING FOR WOMEN*

Community social workers should hold digital literacy workshops in community centers to teach women and other vulnerable groups how to navigate digital devices and use social media platforms. In addition, social workers must teach individuals how to protect their privacy and ensure their safety both online and offline. One example of this type of training material is called *The Empowering Internet Safety Guide for Women*, produced by vpnMentor, which lists multiple ways to protect one's privacy and safety while navigating social media platforms, online dating sites, and ride-sharing apps (Levavi-Eilat, 2018).

## MACRO PRACTICE INTERVENTIONS

Social work scholars should advocate for high-speed, low-cost internet and accessible technological devices in rural areas for digitally excluded communities. NGOs and NPOs should collaborate with large technology companies to provide discounted technology devices to rural women. Research has shown that Internet use has a significant impact on accessing employment opportunities and reducing poverty in rural China (Yang et al., 2021).

## DATA PROTECTION

Policy social workers and enterprise social workers should protect workers' personal data through regulation and education in the labor market. Policy social workers and social work scholars should refer to the case of *Bărbulescu v. Romania* (2016), a milestone in the pursuit of protection for employees' privacy, which established that an individual has a "reasonable expectation of privacy." As another example, the U.S. Constitution guarantees workers' rights to the protection of intimate, private, and family life (Article 26) as well as private correspondence (Article 28). While employers have the right to monitor how employees complete professional tasks, employers have a responsibility to guarantee the confidentiality of employees' personal data. Personal data may only be processed "if the person concerned consented to it and it sets out a list of exceptions when consent is not necessary" (*Bărbulescu v. Romania*, 2016, para.16). Advocates should refer to these countries' policies regarding workers' personal data protection as a guide to promoting inclusive and safe laws in Chinese institutions.

## POLICY ADVOCACY FOR DATA PROTECTION

Meanwhile, enterprise social workers should play an important role in regulating AI usage and data protection in workplaces. Enterprise social workers can do this by setting up ethical guidelines for employers who use employees' social media data, supervising companies' data



collection process and dissemination efforts, and affirming workers' reasonable expectations of privacy in the workplace.

In addition to regulation, enterprise social workers need to educate both employers and employees about the importance of ethical usage of employees' data monitoring. Employees need to understand the importance of informed consent, the negative impact of personal data being misused or abused, and whether their companies have a legitimate reason to monitor their activities.

## CONCLUSION

Women marginalized at the intersections of gender, class, and geographic locations are the most vulnerable to digital exclusion and gender oppression in the digital age. Even though social workers face barriers in addressing digital exclusion and gender oppression issues in the patriarchal and political contexts in China, they can still advocate for human rights and digital feminism in creative ways. Through promoting gender equality in training and design, leading feminist initiatives, and promoting digital accessibility and data protection, social workers can advocate for a more gender-equal and gender-inclusive society in China.

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