



Quilombola women confronting digital discrimination in Brazil: ICT access as an axis of intersectional oppression

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Abstract

This work discusses the relationship between digital disconnection and the violation of rights in Quilombola territories. Quilombolas are an ethnic-racial group with Black origins associated with oppression and resistance over the centuries in Brazil. The research was conducted with 41 women aged 18 to 73, who are leaders in 35 remaining Quilombola communities in Minas Gerais, Brazil. The impacts of limited access to information and communications technology (ICT) were assessed using an intersectional perspective, considering social markers of difference such as gender, social class, ethnic-racial belonging, and territory. The results show that 11 territories lack internet service, significantly restricting access to information, health, education, and social participation. The research points to the need for considering digital inequity as another matrix of intersectional oppression, as being disconnected or having restrictions on access and use of ICT increases the vulnerability of these territories, especially for the Quilombola women.

Keywords: Brazil, digital discrimination, ICT, intersectionality, Quilombola women

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Introduction

Information and communication technologies (ICT) are an increasing necessity for living in society. Access to the Internet was recognized as a human right, as it is a gate to other rights, such as health and education (OEA, 2011). Moreover, digital literacy is considered a requirement for democratic social development (UNESCO & Karpati, 2011). Although essential, the use of ICT by both genders is unequal (Rotondi et al., 2020; Simões et al., 2011), and such disparity has implications for women's development and their participation in society (Kwami, 2020; Rocillo & Gomes, 2022). Organização das Nações Unidas Brasil [United Nations Brasil] (ONU) recognizes this issue and has remarked it as a specific target within the Sustainable Development Goal 5 (SDG 5), which is to "enhance the use of enabling technology, in particular the ICT, to promote the empowerment of women" (ONU, 2015).

The literature describes ICT as a right booster regarding multiple aspects of women's lives in periphery countries¹ and migrant women in core countries. One category of study is the right to life against domestic violence. Research performed in Brazil by Alves and Silva (2023) showed the effectiveness of WhatsApp as a communication channel between women assisted by emergency protective measures and the police. Sinha, Shrivastava, and Sinha et al. (2019) also surveyed mobile applications (apps) for reporting and preventing domestic violence.



Another category approaches social inclusion in the broad sense, including access to education and other public services, which can be facilitated with digital technologies. These works reported the results of investigations with Afghan refugees in Germany, Venezuelans in Brazil, and Somalis in Kenya (Camargo et al., 2022; Ritchie, 2022; Schlenz, 2023) and highlighted the mobility provided by ICT to ease access to health, education, work, and other services. The use of cell phones by women in India was associated with mobility and access to non-surgical contraceptive methods, as the information obtained through the devices has contributed to their empowerment regarding choices on reproductive health (Rajkhowa & Qaim, 2022).

Also, in India, Dhanamalar and Yuvashree (2020) remarked that ICT reduces social isolation and strengthens women economically. From this perspective, Kwami (2020) emphasized the relevance of digital technologies to the socio-economic inclusion of women on the African continent. The author stressed that ICT is essential for social and economic development and a tool to fight gender inequality, such as the discrimination that hangs over African women (Kwami, 2020).

In general, the research shows an association between the use of ICT, social inclusion, and women's empowerment (Dhanamalar & Yuvashree, 2020; Kwami, 2020; Rotondi et al., 2020). These concepts are interconnected in this field of study, as they demonstrate that access to mobile phones and the Internet significantly expands women's opportunities to participate in society. Moreover, technologies provide greater autonomy, allowing them more control over their lives and stronger participation in their families and communities (Hussain & Amin, 2018; Shelenz, 2023).

Considering this scenario, the present article aims to analyze how social markers of difference, such as gender, territory, and class status, interact with the digital exclusion of Quilombola communities and how this impacts access to other rights, including health, education, information, and mobilization. Empirical research was carried out in 2023 with 11 Quilombola women aged between 18 and 73 who have leadership roles in 35 communities in 28 cities of Minas Gerais (MG), Brazil. The resulting data are interpreted and critically analyzed through the perspective of intersectionality (Akotirene, 2018; Collins, 2022; Collins & Bilge, 2021; Crenshaw, 1989/2000).

Literature Review

This literature review aims to provide the right tools to critically interpret the data on Quilombola women and inequalities in access to ICTs. The first part of this section presents the context of quilombo communities and the specificities of these territories. The theoretical contribution of black feminism, the intersectionality approach, is articulated with the discussion on rights and social inclusion. This debate helps to shed light on access to ICTs as a fundamental right.

Contextualization: Black territories and inequality

The reminiscent population of quilombos² is characterized as a social group that identifies themselves as ethnic-racial with their history, specific relations with the territory, a supposed black origin linked to resistance to the historical oppression, and "lands occupied and used to

ensure their physical, social, economic, and cultural reproduction" (Brazil, 2023). In Brazilian colonial times, a quilombo was a gathering of enslaved Blacks who rebelled against the slavery regime. The biggest reference in the country is Quilombo dos Palmares, which resisted the oppressive system for over a century. Palmares became a symbol of people's struggle for freedom and civil rights (Gonzalez, 2020; Nascimento, 1980/2019; Nascimento, 2021; Santana, 2012). It is worth noticing that the quilombos did not remain crystallized in the past. They are living and dynamic processes, a collective effort to rescue dignity, freedom for cultural manifestation, religiosity, and ancestry appreciation.

Quilombos incorporate several resistance strategies in Brazilian society (Maria da Silva & Souza, 2022; Santos & Correa, 2007; Souza, 2016). By resistance, it should be understood that even the most essential aspects of citizenship, such as the right to exist in the official data, are prerogatives that the Brazilian state only met in the 2022 demographic census. The Brazilian Institute of Geography and Statistics (IBGE) figures revealed that Quilombolas numbered 1.3 million people, 0.65% of the national population. They are mainly concentrated in rural areas and can be found in almost a third of the 5,565 Brazilian municipalities (IBGE, 2023).

The Quilombola theme is intrinsically articulated to the territory. In this work, we understand territory as the political use of space and its appropriation by social actors, whether material or symbolic. Territories are places of geographically situated social relations whose dynamics change according to historical construction, involving contemporary social structures and functions (Santos, 1993; Santos & Silveira, 2001). The territorial perspective of Milton Santos contributes to reflecting on the specificities of the Quilombola territories, conflicts around these lands, marginalization due to the absence of essential services, appropriation, and resistance of this social group.

Quilombola territories are marked by social inequality, precarious access to essential services like sanitation, roads, and electricity (Dealdina, 2020; Lopes et al., 2022b), and digital exclusion. In this vulnerable context, women have taken leadership roles in their communities over time. They promote health and social assistance, foster political debates, and propose solutions to local problems (Dealdina, 2020).

In this study, we examined Quilombola communities in the state of Minas Gerais, Brazil. The history of this state is characterized by the significant presence of Black people who were forced to work in activities such as gold mining, agriculture, and plantation. In colonial times, they corresponded to 15% of the enslaved population in Brazil (Lamas, 2006).

The most recent demographic census (IBGE, 2023) showed that Blacks comprise 58% of the Minas Gerais State.³ (12 million out of the 20.5 million inhabitants). Quilombolas correspond to 0.66% of this number (135 thousand people), placing Minas Gerais as the third federation unit with the highest concentration of this social group, second only Bahia and Maranhão, both in northeast Brazil. Although Minas Gerais has 392 officially recognized Quilombola communities, only 3.38% of the Quilombola population (4,576 people) live in delimited territories (IBGE, 2023).

The considerations on inequality of access to digital technologies proposed by this study are within the context of Minas Gerais, which has the third-largest economy in the country. Despite the economic prominence, the lack or limitation of access to the Internet by the most vulnerable groups shows the contradictions of capitalism (Martins et al., 2021). While the economic system

generates wealth and resources, it fails to ensure equal access to these benefits. This fact increases the fragility of these groups due to the lack of public policies promoting equity.

Racism is another central component to understanding inequality in Brazil. According to Theodoro (2022), "The existing racism within the job market is associated with racism in education, health, and the spatial distribution of the population, subjecting the Black population to a mosaic of inequities[...]" (p. 18). Whether concerning ICT or access to public services, there is a geography of inequality. The best quality public resources are in the areas with the highest incomes (Barros et al., 2006).

The geographic aspect of this inequality refers to the difference between rural and urban areas. The countryside has less access to health equipment, schools, and public transport (Leal, 2023; Pereira & Nunes de Castro, 2021), conditions that intersect with the deficient telecommunication infrastructure. Although disconnection is multifactorial (education, competence, income, etc.), infrastructure for providing the service is still the most significant impediment for those people to enter the digital world. In addition, "economic barriers and less offer constitute forms of exclusion that do not derive from individual choices; on the contrary, they express inequalities of opportunity" (Arretche, 2019, p. 61).

Official data on connectivity produced by the Internet Management Committee (CGI) indicated that 82% of households in urban areas have some form of Internet access, while in rural areas, only 68% do. Fifteen million households lack Internet access, and the service cost is the most frequently cited reason (59%). The research verified that the average price charged by Internet providers for a 256 Kbps connection is US\$39.20, which corresponds to 13.8% of the minimum wage set at US\$282.40 as of 2024 (CGI, 2023). Such a monthly fee compromises a significant part of the income of the poorest families. On that account, 16% of users share the network with neighbors, 35% belong to the lower classes, and 27% live in rural areas (CTIC, 2023). Sharing the fee is a strategy to reduce the impact of the service cost on the family budget (CTIC, 2023). The ICT households (CGI, 2023) exhibited the same trend as previous research, ratifying that the disconnection in Brazil relates to class, territory, gender, and educational stage. "Many indicators on the Internet activity showed significant differences between high and low socioeconomic classes, urban and rural areas, men and women, and among Whites, Blacks, and Browns" (CTIC, 2023, p. 93). The profile of non-users still includes those with less formal education and people over 60. Thus, the data reflect the intersectional incidence, with territory as the starting point.

Data on infrastructure from the National Telecommunications Agency (Anatel)⁴ revealed that all 5,565 cities in Brazil have 4G coverage (the signal most commonly used by modern cell phones to access the Internet). 4G coverage extends to 94.85% of the urban area and 15.74% of the rural area. The geography of inequality (Arretche, 2019) becomes evident within the cities, as quality services are offered in commercial and residential areas where the economic elite lives, whereas suburbs, favelas, and communities, territories where the majority of Blacks live, lack basic digital connectivity (CGI, 2019).

Intersectionality, communication rights, and social inclusion

Beatriz Nascimento (2021), Lélia González (2020), Luiza Barrios (1995), and other female Black intellectuals point out the challenges of being a Black woman in Brazil and the oppression this group experiences daily. In the 1970s and 1980s, these authors denounced the multiplicity of oppressions and their intersections in the lives of historically marginalized people, confronting race and gender with class division - the antagonistic relationship between the heads of a household and housekeepers is an example. However, these thinkers did not elaborate on a term to name this theoretical position (Casemiro & Silva, 2021). In the United States, Angela Davis, in her classic work "Race, class, and gender," also anticipated what is now called intersectionality.

Kimberlé Crenshaw (1989) first named intersectionality as the multiple oppressions suffered by African American women. Her purpose was to denounce legally the discriminatory treatment given to Black women due to neglect and the numerous oppressions they suffered. Subsequently, she synthesized the concept and proposed an analytical and methodological tool to understand the inseparability of social markers in the construction of multiple realities (Crenshaw, 2002).

The Black intellectuals Nascimento (2021), Davis (2016), and Crenshaw (1989) denounced the complexity of oppressions, including racism, gender, and class, with the intention of provoking changes in the scenario. According to Akotirene (2018), the intersectional concept is a consequence of the analytical sensitivity of Black feminists who did not see themselves as contemplated by white feminism or the antiracist movement. This approach prevents reductionism about identities by understanding the contexts and forms of discrimination.

The intersectional perspective makes it possible to analyze holistically how the social markers of gender, race, class, territory, and others articulate and increase the vulnerability of Black women (Collins & Bilge, 2021; Crenshaw, 2002). However, intersectionality has been adopted as a theoretical construction often disassociated from methodology and interpretation of the results of field research (Díaz-Benítez & Mattos, 2019).

In this context, the most recent work of Collins (2022) showed that intersectionality is not just an idea but a practice and a path to knowledge based on women's experience, which needs new tools for intersectional theorization. The author emphasizes that the purpose of intersectional studies is to perceive these inequalities, enhance knowledge production, and promote social changes. It is essential to think simultaneously about forms of domination in order not to contribute to their perpetration (Kergoat, 2010). Therefore, from the understanding proposed by the intersectional approach, inequalities can be evidenced and mitigated toward full citizenship.

Inequality in ICT access as a violation of rights got great visibility during the COVID-19 pandemic. In Brazil, an Internet connection granted access to public health services and the emergency aid provided by the federal government to the poorest families. Internet access as a human right was guided in 2011 by the Charter of the Organization of American States (OAS) and other international organizations that defend Internet connection as a fundamental right. According to the document, states must promote universal Internet access to uphold freedom of expression. "Access to the Internet is also necessary to ensure respect for other rights, such as the rights to

education, health care, and work, the right to freedom of assembly and association, and the right to free elections" (OAS, 2011, para. 30).

Having a device (mobile phone or computer) and an Internet connection can be considered the primary conditions for digital inclusion, but only these factors are not enough. The debate is more complex than considering the scenario as a "digital divide" between those with access and those without it. Kwami (2020), a researcher on gender, race, and ICT, highlights that "scholars have noted that differences in the access to, use of, and impact of ICT are complex and must be contextualized within the capacities and resources available to users." (Kwami, 2020, para. 2). In this sense, the author corroborates the work of Rotondi et al. (2020), who categorized exclusion into two levels of the digital gender divide. The first level corresponds to the absence of a mobile phone or computer with an Internet connection, while the second refers to the lack of user skills.

On digital skills or digital literacy, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) advocates digital education as part of the formation of all citizens and a requirement for democratic social development (Wilson et al., 2013). In Brazil, among the targets for the Sustainable Development Goal (SDG) of the 2030 Agenda, SDG 5 (gender equality) deals with the development of skills in the production of content and media, considering the plurality of rural areas in terms of racial belonging, gender, generation, territory, and culture. This points to the articulation of global agendas with national objectives that understand digital inclusion as a foundation for social inclusion.

Being connected can bring intangible benefits for women living in rural or peripheral areas, such as empowerment and reduced social isolation. It also promotes gender equity and emotional satisfaction (Tacchi et al., 2012) and helps maintain family and community bonds (Escosteguy et al., 2017). Access to ICT offers economic opportunities, allowing access to new markets, establishments, and business partnerships (Kwami, 2020).

Methodology

This study is the result of four years of work by the research group Meios—Media, Racial Relations, and Gender, coordinated by the first author. The group has been conducting research and outreach activities with Quilombola women to improve their access to information and communication technologies (ICT). The study was carried out in Minas Gerais, Brazil's second-most populous state, with 20.5 million inhabitants (IBGE, 2023).

During colonial times, Minas Gerais received many enslaved Blacks who were forced to work in gold mining and coffee plantations (Freire & Andrade, 2019). Presently, people of Black and mixed-race descent (Blacks and Browns) make up 58.7% of the state population. The state is home to the third-largest Quilombola population in Brazil, 135,310 people, accounting for 10.1% of all Quilombolas in the country (IBGE, 2022).

The data presented in this paper is a segment of the qualitative research carried out with 41 Quilombola women leaders from 35 communities in 28 municipalities in the regions of Zona da Mata, Campos das Vertentes, Vales do Jequitinhonha e Mucuri, Norte, and Central of Minas

Geraiis.⁵ The first research stage was conducted using the snowball methodology (Vinuto, 2014), which employs a network of references to identify the interlocutors. This is a "non-probabilistic sampling that uses key informants, called seeds, to locate people with the necessary profile for the research." (Vinuto, 2014, p. 202).

The Quilombola Women

We started with some Quilombola leaders that the authors knew from previous dialogues. During 2022 and 2023, we conducted digital literacy workshops (mobile phone photography, graphic design using Canva and Instagram) for 30 women from the Quilombola communities of Buieié in Viçosa, and Córrego do Meio in Paula Cândido. The various weekend meetings strengthened the bond between us and the women. "The activities were also an opportunity to meet, talk, and empower the women. During the workshops, participants frequently shared stories about machismo, racism, and strategies for overcoming challenges" (Lopes & Leal, 2024). After building this trusting relationship, leaders of the two communities appointed other leaders as potential respondents. The non-governmental organization (NGO) Documentation Center Eloy Ferreira da Silva (Cedefes) assisted our survey by distributing the research project summary and questionnaire to the women through a Google form.

In this survey, we asked about the socio-demographic profile (e.g., age, gender, marital status, education, and income), data on ICT in the territories, and individual questions about access and appropriation of technologies. With the responses of the 41 women gathered between April and October 2023, we moved on to the second stage, which was to conduct in-depth interviews with 17 women. They were asked about the leadership role, inequalities that impact Quilombola territories, gender racism, and access and appropriation of information and communication technologies.

Researcher Agency

It is worth highlighting the existence of some ethnic-racial sorority between the Quilombola women and the first author, a Black woman who is also the project coordinator. This was verified when a white researcher/team member made the first attempt to contact the leaders via WhatsApp and got very few replies. We reflected on this situation and decided to change the approach strategy. On the second attempt to contact the women, the research coordinator created a video explaining the project's objectives and asked for study participation by completing a Google form. Many responders expressed their satisfaction at seeing such work being developed by a Black woman professor, which is still rare in Brazil. In federal public universities, fewer than 15% of the professors are Black, and in postgraduate programs, where there is greater access to research funding, Black women represent less than three percent of the faculty (INEP, 2018).

Ethical Considerations

This research complied with the ethical procedure requirements. It was registered in *Plataforma Brasil* (the national unified database of research records involving human subjects) in the Research Ethics Committee (CEP) system. It was issued a Certificate of Presentation of Ethical Assessment (CAAE) with the identifier 68785223.6.0000.5153. The research obtained assent number 6,054,960 in order to proceed with its execution.

The participants were sent the Google form via email or WhatsApp. The form introduced the research objective and asked for their voluntary participation. A total of 41 women accepted. In the next phase (in-depth interview), 17 volunteers were informed about the study's ethical considerations, and they signed the Informed Consent Document (TCLE), as required by the Federal University of Viçosa (UFV).

In addition to the ethical formalities, some women whose Quilombola territories are highly sought after by researchers lamented the lack of feedback to their communities. On that account, our work went beyond the initial objectives, and we produced the documentary "Women of Quilombo" at the community's request. Also, the relationship has remained, and the project coordinator participates in a group that discusses Quilombola rights with local leaders, the Federal Prosecution Service, and civil society.

Results

"I have always heard that I need to be strong because I am a warrior when, in fact, I do not want to be strong; fighting is tiring" (Dealdina, 2020, p. 19).

The outburst of Selma Dealdina, a national Quilombola leader, is a reminder that female protagonists in Quilombola territories should not be idealized as strong or "warrior-like" without noticing the excess of responsibility that falls upon them. The leadership of these women is a reaction to racism, inequality, scarcity of public services, unemployment, and the daily struggle to defend their territory against real estate speculation and the agribusiness onslaught. They also work to promote the appreciation of their culture, religiosity, and ancestry (Conaq, 2020; Dealdina, 2020).

Almost all 41 interviewees spoke about work overload and the difficulties of dealing with their work, family life, and the community's demands. Carneiro (2011) called "matriarchy of misery" the toll on the daily lives of Black women. After all, who takes care of those taking care of others? How do the community, family, and society value their work? These issues must be addressed when discussing the central role of the women who participated in our survey.

The age group with the highest frequency comprised 17 women aged 30-39, followed by 10 women aged 18-29. We also interviewed six women aged 40-49, five women aged 50-59, and three women over 60 (Figure 1). In 2023, the youngest interviewee was 18, and the oldest was 73. We observed that women usually join the Quilombola movement at an early age and continue to participate until old age, sharing knowledge and encouraging other women. In the interviews,

these dynamics became evident in collective leadership practices, respect for the elders, and acknowledgment of the learning process.

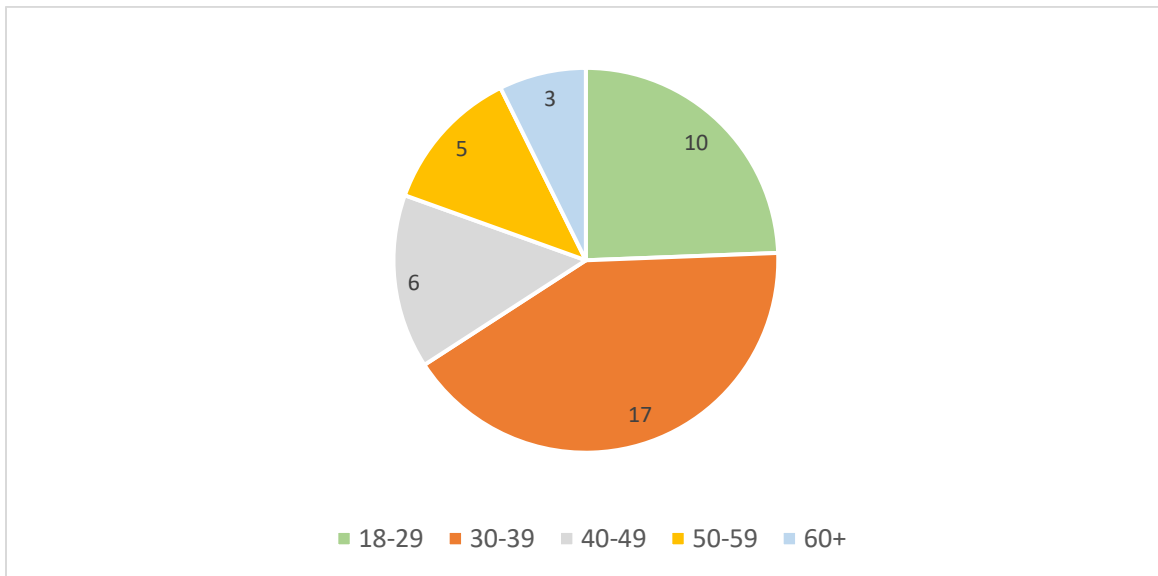


Figure 1. Number of Quilombola leaders interviewed by age group

As for the educational stage, one participant finished elementary school (ninth grade), while four had not completed this school level. Nine participants graduated high school, and one did not. Eight participants were university students, and four had interrupted their studies. Fourteen women had a higher education degree, and four had finished their postgraduate studies. Although most interviewees have attended university or already had a degree, the high education stage does not reflect on their individual income, as shown in Figure 2.



Figure 2. Monthly household income per capita

The results show that 27 women earn less than US\$260 (minimum salary as of 2023), and five have an income between US\$520 and US\$780. Only one woman affirmed getting more than four times the minimum salary (US\$1,040). This information corroborates the national data on income, color/race, and inequality produced by the Brazilian Institute of Geography and Statistics (IBGE). According to the official reports, "[...] the disparities in income from work, when analyzed in terms of color or race, is [sic] noticeable at all levels of education, even at the highest ones. White people earn about 45% more than Blacks and Browns" (IBGE, 2019, p. 4). IBGE (2019) also points out the income gap between white men and other population groups, particularly Black or Brown women, who earn less than half of what white men make (44.4%).

The income data show that despite 14 participants completing higher education, those women do not experience better salaries. Unlike the white population, they do not enjoy the salary benefits associated with a higher education degree (IBGE, 2019). This disparity is rooted in racism, which "normalizes the overexploitation of labor, [...] exemplified by workers who struggle to support their family with their salary, regardless of how much they work" (Almeida, 2019, p. 172). Of the interviewees, 13 were beneficiaries of the Bolsa Família Program, a federal government initiative that fights poverty by assisting families with a monthly per capita income of less than US\$43.60.

Notably, most Quilombola communities are in rural areas, typically with lower labor supply and income. Several factors have contributed to the shortage scenario that characterizes the rural regions of Brazil, including the physical dispersion of rural populations, socioeconomic problems merged with inefficient policies on public health and sanitation, and scarcity of investments (Lima et al., 2019). These intersecting oppressions reinforce structural inequalities, further increasing the vulnerability of individuals in these communities.

Table 1 exhibits the impact of this unfavorable social condition on the use and appropriation of ICT. Although Brazil averages 2.2 digital devices per person (computers, laptops, tablets, and

smartphones) (FGV, 2023), digital resources are inequitable. Our research revealed that six interviewees identified device ownership as the initial obstacle to digital inclusion. According to Araújo and Lamb (2020), the unequal right to communication benefits the most privileged social strata.

On the other hand, while mobile phones are the most popular form of Internet connection for 35 women (Table 1), 15 have owned the device for less than five years, and eight interviewees for the last three years. This data indicates that mobile phones have become integral to women's daily lives as of 2020, the first year of the COVID-19 pandemic. During that time, many families managed to buy a device and pay for an internet connection to access emergency financial aid, outbreak-coping protocols, and vaccination information. Cell phones also facilitated the women's ability to keep in touch with isolated friends and family (Leal, 2023). In this sense, if not having internet access had been a minor issue compared to other shortages, the pandemic highlighted its importance in ensuring other rights, especially regarding education and health (Crisóstomo, 2023).

Table 1. Access to devices and forms to connect to the internet

Device ownership & Internet access	Yes	No
Cell phone	35	06
Computer	22	19
Home Wi-Fi, exclusively	11	-
Home Wi-Fi, mobile data, workplace Wi-Fi, and other sources of Internet connection	20	-
Mobile data, exclusively	09	-
Public Wi-Fi, exclusively	01	-

Regarding how the Quilombola women access the internet, 31 interviewees have Wi-Fi at home, and 20 use it via multiple sources (home, workplace, and mobile data). However, ten women have limited access to the Internet - nine use the Internet exclusively with mobile data, and one uses it via public Wi-Fi. The concept of "meaningful connectivity" (Alliance for Affordable Internet 2020) goes beyond just having access to the Internet. It also considers how regularly the Internet is used, the amount of data available, connection speed, and the ownership of proper devices. This means that most communities lack meaningful connectivity, as only nine participants consider their connection good, and 19 have access to it exclusively through a cell phone.

Mobile-only internet access restricts the potential for using technology. Borges and Oliveira (2011) emphasized the importance of device storage for supporting certain functions. A computer or laptop typically has greater storage capacity than a mobile phone, offering users more utilization options (Cardoso, 2023).

ICT in the territories

The interviewees are leaders in 35 Quilombola communities located in 28 municipalities. We asked them about the distance from the community to the center of their respective cities, and their answers revealed that the quilombos are in the surrounding areas. Twenty-five respondents said their quilombo is within 15 km of the city center, 14 are between 16 and 30 km, and only two are over 50 km away (60 km and 80 km, precisely).

Rural quilombos used to be more prevalent before urbanization spread across the countryside. In Minas Gerais, for example, some quilombos that used to be rural are now considered urban. Interviewee “Benedita”⁶ used this re-signification to explain that her community is now within the urban perimeter; however, it keeps many rural practices, such as sustaining small-scale farms and vegetable gardens.

In Benedita’s scenario, the merging of rural and urban geographies illustrates that there are no delimited borders, only the circularity in rural people’s daily lives and trajectories (Castro, 2016). Despite that, there is a disparity in the opportunities offered by the countryside and the city due to the physical dispersion of rural populations, socioeconomic issues, lack of public policies, and scarcity of resources invested in these communities (Lima et al., 2019).

This fact becomes evident in access to ICT. Fourteen Quilombola leaders from 11 communities stated there needs to be more ICT offered, even though their territories are close to an urban center. Only nine participants said the service quality was good, while the majority considered it subpar. The most frequent complaint, mentioned 18 times⁷, was the limited internet provider options. Besides that, 15 responses highlighted the high prices, and 15 mentioned poor quality due to unstable or intermittent signals. Some recalled one occasion when, due to heavy rainfall, the territory was left without an internet connection for several days. Interviewee “Dandara,” age 25, described another case, the most severe so far, in which the community remained without telephone and mobile signal for 20 days.

The interviewees noted that their communities face discrimination compared to urban areas regarding ICT availability. The women cited a few factors that contributed to this disparity: 13 women mentioned higher prices (that range from US\$12 to US\$400), 19 referred to lower quality, and 14 pointed to fewer options for internet providers. In many rural communities, additional equipment is needed to access the internet, which adds an average of US\$400 on top of the monthly fee. These costs are significant, especially considering that 27 interviewed women earn less than US\$260 per month.

Cardoso (2023) researched digital discrimination, revealing that mobile signal coverage in the countryside of Viçosa (Minas Gerais) varies from 1.6% to 100%. Only 2G technology is available in some areas, but the situation is even more dire in the Quilombola community of Buieié. Only one

Internet provider operates there, and the signal is limited to a few spots. Overall, "Quilombolas have access to stable Internet limited to Wi-Fi networks, and they pay more for the service than urban residents" (Cardoso, 2023, p. 86).

Disconnection and violation of rights: Education and health

This topic highlights the difficulties faced by the lack or restriction of connectivity in leadership practices, community life, and assurance of rights in Quilombola territories. We argue that total or partial disconnection constitutes a violation of the right to access the Internet (OAS, 2011; Wilson et al., 2013) and increases vulnerability by making it difficult to obtain public services, which are increasingly being provided through digital platforms (Melo, 2023; Rachid et al., 2023). This trend was accelerated by the need for social isolation imposed by the COVID-19 pandemic. In Brazil, one needed a specific bank's mobile app to receive emergency aid. In the campaign's early stages, vaccination against COVID-19 also had to be scheduled via mobile phone.

The pandemic exacerbated the centrality of the internet in the most ordinary activities, such as studying. Being disconnected prevented vulnerable groups from studying, further amplifying the disadvantages of public education in the peripheries. In places where the internet was available, many families managed to hire the service during the pandemic (Dandara, 25 years old; Elza, 33). The leaders of some communities joined forces to bargain with providers for better prices, and some people began to share their internet signals with relatives and neighbors to lower collective costs (Lopes et al, 2022 a).

In communities with restricted internet coverage, the reports exposed the precariousness faced when studying. "Children had to go to the middle of the pasture with their cell phones to get some signal," said Zezé, age 49. Another interviewee pointed out that "the children went to the top of the hill to be able to study. They had mobile phones but no Internet. It is very complicated" (Rute, age 37). These are two of many statements illustrating the difficulties in exercising the right to education during the pandemic. The media often depicted situations where children and teenagers showed resilience and determination to continue their studies in the face of adversity. However, the news failed to provide the necessary criticism of the lack of public policies to ensure access to the Internet as a fundamental right.

In the daily life of these quilombo communities, disconnection makes it difficult for students to do schoolwork and continue their studies. Antonieta, a 34-year-old woman who has completed her undergraduate studies, said:

I cannot pursue a postgraduate distance course, which would be ideal for me, as I work and live in the community. I do not earn enough money to go frequently to the city, which is extremely expensive. How will young people take courses to get into the university?

Antonieta's community is only 30 km from a historic tourist city in Minas Gerais. Her situation also alerts us to the problems of social isolation due to the absence of telephony and the internet, which precludes contacting emergency health services, for example. Antonieta reports:

The community is isolated. There are older adults in their 80s and 90s. You have to carefully plan your groceries because you must set aside US\$50 for a car in case you need to travel to the city.

During the health crisis caused by SARS-CoV-2 in late 2019, several daily practices, including communication, changed due to social isolation. Access to ICT became essential to learning about protective measures against COVID-19, which was officially detected in Brazil in February 2020, as reported by Agência Brasil - Brasília news outlet. In this sense, as government communication focused on digital platforms (Lopes & Leal, 2020), those who were disconnected (about 47 million Brazilians at that time) had limited access to essential information. Within this group, Indigenous (35%) and Black (29%), as well as many elderly individuals without ICT skills, have become even more vulnerable.

Violation of access to public policies

Interviewee Aquatune, a 66-year-old woman, draws on her experience as a teacher of traditional knowledge and local leadership to talk about the increased precariousness in the Quilombola territories due to the lack of internet access. She said, "Some people do not even have Internet where they live. They have no contact with other people." How are they [the Quilombola community] supposed to get the documentation?" As a local leader, Aquatune is familiar with the challenges of digital isolation in some rural communities that lack internet access. For instance, residents struggle to obtain the essential documentation from the Palmares Foundation, which is necessary for the Brazilian government to recognize them as Quilombola communities.⁸ They are unable to fill out the online application.

Being officially recognized as a Quilombola community grants access to public policies specifically targeted at this social group. Benefits include, for example, a stay grant of US\$280 for university students. Also, Quilombola family farmers can sell their agricultural products to the National School Feeding Program (PNAE). Therefore, access to the internet hinders recognition and makes it impossible for them to profit from these public policies.

Violation of the rights to communication, information, and mobilization

The articulation among leaders and communities creates solidarity and supporting networks, making the Quilombola causes resonate with the public power (Chrysostom et al., 2022). Rogéria de Andrade Nunes (2021) posits that discussing the role of these leaders involves addressing "an aesthetic-political entity that embodies unique experiences of exclusion [...] They transcend place, reaching the city, the state, and often the country in a permanent movement in defense of the citizenship of the residents of those territories [...]" (p. 104).

The participants emphasized that accessing information and communication technologies facilitates managing community activities. When someone lacks Internet access or does not know how to use a mobile phone, Dandara, age 25, reports: "We have to visit them at home or send messages through a third party. So, if we had more access, it would be easier to do [the community work]."

The two oldest interviewees, Laudelina (73) and Aquatune (66), both leaders of urban quilombos, said that using ICT facilitates establishing communication channels. Laudelina shares: "We created a network. Everything that happens, we inform the community via WhatsApp." Aquatune says the internet makes life easier: "We do not need to travel by bus or on foot to communicate with others. We can talk to each other through WhatsApp."

Being connected to the Internet contributes to reducing social isolation for those who live in remote rural communities (Escosteguy et al., 2017). One of the Quilombola women, Zezé, age 49, mentioned WhatsApp as a convenient mobile application for communicating, as it offers audio messaging, speedy delivery, and is user-friendly for those with little formal education who struggle with writing. She also talks about how the app is essential for sustaining community support among residents: "If something happens in another place, they send us a message, and I call them back. It helps a lot." Technology also facilitates emotional support, as stated by Rute, 37, "People use the WhatsApp group to vent about their problems."

Many leaders mentioned the group of residents on WhatsApp. However, the poor signal causes delayed communication. Lea, age 26, shares that when she "posts some information in the community group on WhatsApp, many people will only get the news when they visit the city or pass by a higher place, where they get some mobile signal."

The denial of the right to information is evident mainly by the limited access to the news. In this sense, the interviewees recognize that, with an Internet connection, they can access various sources of information. People in the communities are generally informed only by television and radio. Janete, 29, cites the lack of connectivity as an obstacle to learning about the rights of the communities and keeping up the agenda and struggles of the Quilombola movement.

Antonietta, aged 34, points out that their limited access to the Internet restricts their chances to participate in public notices and workshops that could lead to exciting projects for the community. Public notices are typically available online, and the project proposals must be submitted digitally. Thus, digital exclusion makes applying impossible, hindering the chances of obtaining the necessary resources.

Discussion

The lack of connection and digital appropriation exclude the most vulnerable groups from the emancipation opportunities the ICT provides in areas like health care, education, and citizenship. According to Pasti (2018), citizenship is linked to universal access to information and the democratization of technical, regulatory, and organizational conditions.

Despite the increasing necessity of ICT for societal participation, this research highlights that these services are unavailable in 11 territories. Furthermore, there are issues related to the infrastructure for Internet connectivity and the ownership of devices, particularly computers (desktop or laptop). Nineteen out of 41 participants had no computer, and six shared a mobile phone. Slightly less problematic, digital illiteracy also hinders the appropriation of communication technologies. Two older women did not have an email account, and some older

adult women also expressed difficulty in dealing with social networking sites, often requiring assistance from the youngest (children, grandchildren, and neighbors).

Quilombola leaders are crossed by the ethnic-racial marker, as they often live in underprivileged situations and face territory discrimination in accessing ICT. The reports from the interviewees showed that discrimination occurs in the absence of infrastructure that ensures access to civil rights (communication and Internet), the poor quality of the service provided by the Internet companies, and the higher prices compared to the urban areas. Theodoro (2022) states that Brazilian society seems resigned to the persistent inequality, "not only economic and social but also in differentiated access to public services, especially security, and justice" (p. 17), what we call *digital discrimination*.

In this context, intersectionality sheds light on inequalities that violate civil rights, including the right to access ICT. This theoretical-methodological approach helps to understand the inseparability of social markers in constructing different realities (Crenshaw, 2002). In addition, it prevents reductionism about identities by understanding the contexts and other forms of discrimination (Akotirene, 2018).

Being disconnected due to a lack of adequate devices and network infrastructure in these communities violates the fundamental right to communication, information, and Internet access (OAS, 2011). This core right grants access to other rights, such as health, education, and participation. Therefore, we argue that access to information and communication is associated with social inclusion (Shelenz, 2023). This concept can be translated into possibilities. Warschauer (2004) confirms that

... individuals, families, and communities can fully participate in society and control their destinies, taking into account various factors related to economic resources, employment, health, education, housing, recreation, culture, and civic engagement. (p. 8)

Two significant findings came from the research. Firstly, there is digital discrimination against Quilombola territories when it comes to access to ICT. Even though the territories are located near urban centers (only two are more than 50 km away), Internet service is precarious, and the costs are higher than in urban areas. This result points to the necessity of political practices addressing inequalities that lead to limited access to fundamental rights, such as health care and education, and hinder opportunities for individuals within this social group, particularly the Quilombola women.

Secondly, ICT disconnection is another form of intersectional oppression. It restricts access to rights, hinders full participation in society, and intensifies the marginalization experienced by Quilombola women. As modern life becomes increasingly mediated by digital technologies, the ability to stay connected and the skills for ICT appropriation emerge as social markers of difference between those included and excluded within society. This finding contributes to the theoretical advancement of intersectional studies, showing the relationship between disconnection, violation of rights, and augmented vulnerability.

Limitations

Although this study provides a significant overview of Quilombola communities in the state where the research was carried out, it is limited because it was not possible to conduct in-depth interviews with leaders in the regions of Norte de Minas and the Jequitinhonha and Mucuri Valleys due to a lack of resources. Those are semi-arid regions, often plagued by drought, and are the poorest areas in the state. We plan to pursue this investigation further. We have already submitted applications for funding to broaden the research and gather a more comprehensive sample of the reality of the quilombos in Minas Gerais, with a particular focus on those regions.

Conclusion

This article addresses the digital exclusion experienced by Quilombolas, particularly the women, due to limited internet access, lack of digital devices (such as cell phones and computers), and low digital literacy. This exclusion not only hinders their access to essential information services, such as health care and education, but also restricts their opportunities for full participation in society. Digital discrimination becomes evident when considering the disparity in ICT access between urban and Quilombola areas. In the latter, services are usually costlier and of lower quality compared to central areas of the cities.

The intersectional approach in this study reveals how multiple forms of inequality intertwine, exacerbating the marginalization faced by Quilombola women. The combination of unfavorable social status, sense of ethnic-racial belonging, age, education, and territory collectively increase the vulnerability of these women. The research indicates that limiting access to ICT is a modern form of intersectional oppression, as digital exclusion is a barrier to full social integration, access to rights, and participation in society.

The lack of financial resources curbed the geographic extension of the research. Future studies should broaden the territorial scope and include a broader range of Quilombola perspectives, particularly in regions like the Norte de Minas Gerais and Vales do Jequitinhonha and Mucuri, where socioeconomic conditions are more precarious. This continuity is essential for amplifying the representation and understanding of the needs and realities of these historically marginalized communities.

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Endnotes

¹ We refer to periphery countries as opposed to the core countries that withheld political and economic hegemony (Germany, Canada, the United States, France, Japan, and the United Kingdom).

² “There are several different nomenclatures for rural Black communities in the Americas, including *quilombos* and *mocambos* (Brazil), *palenques* (Colombia, Cuba, and Ecuador), *cimarrones* (Uruguay, Cuba, and other parts of Hispanic America), *marrons* (Jamaica, Suriname, and the Southern United States), *cumbes* (Venezuela), and *garífunas* (Honduras and Guatemala)” (Gomes *apud* Silva & Sousa, 2022).

³ There are five officially recognized racial groups in Brazil: Blacks (Pretos), Browns (Pardos), Whites, Yellows (Asians), and Indigenous. Black people politically comprehend Blacks and Browns; both are official categories of the Instituto Brasileiro de Geografia e Estatística [Brazilian Institute of Geography and Statistics] (Dos Santos, 2024).

⁴ Available on: <https://informacoes.anatel.gov.br/paineis/infraestrutura>. Accessed: January 15, 2024.

⁵ Project “From quilombos to favelas: Black women, intersectionality, and access to information and communication technologies” funded by the National Council for Scientific and Technological Development.

⁶ Denotes assigned pseudonyms of interviewees.

⁷ The question “Why do you consider the service bad?” allowed multiple answers to be chosen, so the answers exceeded the number of respondents.

⁸ Check the Palmares Foundation website: www.gov.br/pt-br/servicos/obter-certidao-de-autodefinicao-de-comunidade-remanescente-de-quilombo

References

- Akotirene, C. (2018). *Interseccionalidade [Intersectionality]*. São Paulo: Sueli Carneiro; Pólen.
- Alliance for Affordable Internet. (2020). *Meaningful connectivity: A new standard to raise the bar for Internet access*. <https://a4ai.org/meaningful-connectivity/>
- Almeida, S. (2019). *Racismo estrutural [Structural racism]*. São Paulo: Pólen.
- Alves, R., & Silva, M. (2023). *Tecnologias da informação e comunicação na garantia de direitos das mulheres em situação de violência doméstica. [Information and communication technologies in the guarantee of women's rights on domestic violence]*. *Revista Brasileira de Segurança Pública*, 17(1), 146-165. DOI: <https://doi.org/10.31060/rbsp.2023.v17.n1.1486>
- Arretche, M. (2019). *A geografia digital no Brasil: Um panorama das desigualdades regionais [Digital geography in Brazil: An overview of regional inequalities]*. In L. F. R. de Andrade, & M. C. S. de Souza (Eds.), *Desigualdades digitais no espaço urbano: Um estudo sobre o acesso e o uso da Internet na cidade de São Paulo [Digital inequalities in the urban space: A study on Internet access and use in the city of São Paulo]* (pp. 29-48). Comitê Gestor da Internet no Brasil.

- <https://bibliotecadigital.acervo.nic.br/items/27d074dc-45af-4389-921d-7fba37bb1b6a>
- Barrios, L. (1995). Nossos feminismos revisitados [Our feminisms revisited]. *Revista Estudos Feministas*, 3(2), 458-463. DOI: <https://doi.org/10.1590/%25x>
- Barros, R., Foguel, M., & Ulysséa, G. (2006). Desigualdade de renda no Brasil: Uma análise do declínio recente [Income inequality in Brazil: An analysis of the recent decline]. *Instituto de Pesquisa Econômica Aplicada*, v. 1. <https://repositorio.ipea.gov.br/handle/11058/3249>
- Borges, J., & Oliveira, L. (2011). Competências infocomunicacionais em ambientes digitais [Infocommunication skills in digital environments]. *Observatório (OBS*) Journal*, 5(4), 291-326. DOI: <https://doi.org/10.15847/obsOBS542011508>
- Camargo, J., Cogo, D., & Alencar, A. (2022). Venezuelan refugees in Brazil: Communication rights and digital inequalities during the Covid-19 pandemic. *Media and Communication*, 10(2), 230-240. DOI: <https://doi.org/10.17645/mac.v10i2.5051>
- Carneiro, S. (2011). *Racismo, sexismo e desigualdade no Brasil* [Racism, sexism and inequality in Brazil]. São Paulo: Selo Negro. <https://institutoressurgir.org/wp-content/uploads/2018/07/Racismo-Sexismo-e-Desigualdade-Sueli-Carneiro-1.pdf>
- Casemiro, D. M. F., & Silva, N. L. e. (2021). Teorias interseccionais Brasileiras: Precoces e inominadas. [Brazilian intersectional theories: Early and unnamed]. *Revista de Ciências do Estado*, 6(2), 1-28. DOI: <https://doi.org/10.35699/2525-8036.2021.33357>
- Cardoso, J. S. M. (2023). *Mulheres rurais e literacia digital: Questões para além do acesso à TIC* [Rural women and digital literacy: Issues beyond access to ICT] [Master's thesis], Universidade Federal de Viçosa. <https://doi.org/10.47328/ufvbbt.2023.512>
- Castro, E. G. de. (2016). Juventude do campo, da água e da floresta: A primeira geração jovem de movimentos sociais no Brasil e seu impacto nas políticas públicas de juventude. [Rural, water and forest youth: The first young generation of social movements in Brazil and their impact on public youth policies.] *Política & Trabalho Revista de Ciências Sociais*, 45, 193-212. <https://periodicos.ufpb.br/ojs/index.php/politicaetrabalho/article/view/30734>
- Collins, P. H. (2022). *Bem mais que ideias: a Interseccionalidade como teoria social crítica* [More than ideas: Intersectionality as critical social theory] (B. Barros, & J. Oliveira, Trans.). São Paulo: Boitempo. (Originally published 2019)
- Comitê Gestor da Internet no Brasil. (2023, November 16). *Classes C e DE impulsionam crescimento da conectividade à Internet nos lares Brasileiros, mostra TIC Domicílios 2023* [Classes C and DE drive growth in Internet connectivity in Brazilian homes, shows ICT Households 2023]. <https://cetic.br/pt/noticia/classes-c-e-de-impulsionam-crescimento-da-conectividade-a-internet-nos-lares-brasileiros-mostra-tic-domicilios-2023>

- Comitê Gestor da Internet no Brasil. Cetic-BR - Centro Regional de Estudos para o Desenvolvimento da Sociedade da Informação. (2019). Inclusão, tecnologias e dinâmicas territoriais: Uma análise das desigualdades digitais na cidade de São Paulo. [Inclusion, technologies and territorial dynamics: An analysis of digital inequalities in the city of São Paulo]. In *Desigualdades digitais no espaço urbano: um estudo sobre o acesso e uso da internet na cidade de São Paulo* [Digital inequalities in the urban space: A study of Internet access and use in the city of São Paulo]. Comitê Gestor da Internet no Brasil. https://cetic.br/media/docs/publicacoes/7/11454920191028-desigualdades_digitais_no_espaco_urbano.pdf
- Conaq - Coordenação Nacional de Articulação das Comunidades Rurais Quilombolas. (2020). [Website]. <https://conaq.org.br/coletivo/mulheres/>
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine. In *Feminist Theory and Antiracist Politics*. Vol. 1. <https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf>
- Crenshaw, K. (2002). Documento para o encontro de especialistas em aspectos da discriminação racial relativos ao gênero [Document for the meeting of experts on gender aspects of racial discrimination]. *Revista Estudos Feministas*, 10(1), 171-188. <https://doi.org/10.1590/S0104-026X2002000100011>
- Crisóstomo, M., Melo, P. V., & Terso, T. (2022). TICs, raça, mulheres e territórios: o podcast Ondas da Resistência como ocupação de plataformas digitais numa perspectiva interseccional. [ICTs, race, women and territories: The Ondas da Resistência podcast as an occupation of digital platforms from an intersectional perspective]. *Fronteiras - Estudos Midiáticos*, 24(1), 37-51.
- Crisóstomo, M. (2024, June 11). [Audio podcast episode] In *A realidade da educação escolar quilombola é discutida no Podcast Trilha Quilombola* [The reality of Quilombola school education is discussed in the Trilha Quilombola Podcast]. Coeqto. <https://www.coeqto.com.br/2024/01/10/realidade-da-educacao-escolar-quilombola-e-discutida-no-podcast-trilha-quilombola/>
- CTIC- Núcleo de Informação e Coordenação do Ponto BR (Ed.). (2023). *TIC Domicílios: Pesquisa sobre o uso de tecnologias de informação e comunicação nos domicílios Brasileiros* [ICT Households: Survey on the use of information and communication technologies in Brazilian households]. Comitê Gestor da Internet no Brasil. https://cetic.br/media/docs/publicacoes/2/20230825143720/tic_domicilios_2022_livro_eletronico.pdf
- Davis, A. (2016). *Mulheres, raça e classe* [Women, race and class] (H. R. Candiani, Trans.). São Paulo: Boitempo. (Originally published 1981)
- Dhanamalar, M., Preethi, S., & Yuvashree, S. (2020). Impact of digitization on women's empowerment: A study of rural and urban regions in India. *Journal of International Women's Studies*, 21(5), Article 11. <https://vc.bridgew.edu/jiws/vol21/iss5/11>

- Dealdina, S. S. (Org.). (2020). *Mulheres Quilombolas: Territórios de existência feminina negra*. [Quilombola women: Territories of Black female existence]. São Paulo: Sueli Carneiro: Jandaíra.
- Díaz-Benítez, M. E., & Mattos, A. (2019). Interseccionalidade: Zonas de problematização e questões metodológicas [Intersectionality: Problematization zones and methodological issues]. *Metodologia e Relações Internacionais: Debates contemporâneos*, 2, 67-94. <http://www.editora.puc-rio.br/cgi/cgilua.exe/sys/start.htm?infoid=680&sid=3>
- Dos Santos, S. A. (2024). Law programs, ethno-racial relations education, and confronting racism in the Brazilian judiciary. *Social Sciences*, 13, 17pp. <https://doi.org/10.3390/socsci13020082>
- Escosteguy, A., Sifuentes, L., & Bianchini, A. (2017). Mulheres rurais e seu uso mediado das TICs: Tensões e continuidades nas relações de gênero [Rural women and their mediated use of ICTs: Tensions and continuities in gender relations]. *Intercom, Rev. Bras. Ciênc. Comun*, 40(1), 195-211. DOI: <https://doi.org/10.1590/1809-58442017111>
- Freire, J., & Andrade, V. F. S. (2019). Produção de alimentos, cafeicultura e escravidão na Zona da Mata mineira, século XIX [Food production, coffee growing and slavery in the Zona da Mata of Minas Gerais, 19th century]. *Patrimônio e Memória*, 15(1), 134-157. <https://pem.assis.unesp.br/index.php/pem/article/download/973/1076>
- Fundação Getúlio Vargas. (2023). *Retrospectiva 2023: País tem mais de dois dispositivos digitais por habitante, revela pesquisa* [Retrospective 2023: Country has more than two digital devices per inhabitant, survey reveals]. <https://portal.fgv.br/noticias/retrospectiva-2023-pais-tem-mais-dois-dispositivos-digitais-habitante-revela-pesquisa>
- Gonzalez, L. (2020). *For an Afro-Latin American feminism*. Isis International. <https://feministarchives.isiswomen.org/47-books/confronting-the-crisis-in-latin-america-women-organizing-for-change/828-for-an-afro-latin-american-feminism>
- Hussain, F. A., Amin, S. N. (2018). 'I do not care about their reactions': Agency and ICTs in women's empowerment in Afghanistan. *Gender & Development*, 26(2), 249-265. DOI: <https://doi.org/10.1080/13552074.2018.1475924>
- Kergoat, D. (2010, March). Dinâmica e consubstancialidade das relações sociais. [Dynamics and consubstantiality of social relations] (A. M. Campos, Trans.). *Novos Estudos Cebrap*, 86, 93-103. <https://doi.org/10.1590/S0101-33002010000100005>
- Kwami, J. D. (2020). Gendered digital inequities in African contexts: Measuring and bridging the gaps. *Ada: A Journal of Gender, New Media, and Technology*, 16(3), e2198. <https://scholarsbank.uoregon.edu/xmlui/handle/1794/26828>
- Lamas, F. G. (2006). Povoamento e colonização da Zona da Mata Mineira no século XVIII [Settlement and colonization of the Zona da Mata Mineira]. *Histórica*, 8, 1-9.

<http://www.historica.arquivoestado.sp.gov.br/materias/anteriores/edicao08/materia01/texto01.pdf>

- Leal, D. de U. (2023). *A comunicação de risco e o papel das mulheres rurais no enfrentamento da pandemia de Covid-19 na Zona da Mata* [Risk communication and the role of rural women in coping with the Covid-19 pandemic in Zona da Mata (MG)], [Doctoral dissertation]. Universidade Federal de Viçosa. <https://doi.org/10.47328/ufvbbt.2023.506>
- Lima, A. R. A., da Silva Dias, N., Lopes, L. B., & Heck, R. M. (2019). Necessidades de saúde da população rural: Como os profissionais de saúde podem contribuir? [Health needs of the rural population: How can health professionals contribute?] *Saúde em Debate*, 43(122), 755- 764. <https://doi.org/10.1590/0103-1104201912208>
- Lopes, I. S. & Leal, D. U. (2024 - in press). Quilombola women, inequality and digital literacy: Challenges for the promotion of intercultural communication. *Revista Anagramas Rumbos y Sentidos de la Comunicación*. <https://dialnet.unirioja.es/servlet/revista?codigo=13859>
- Lopes, I. S., Caetano, L. R., & Cardoso, J. S. M. (2022). Comunicação quilombola, resistência e proximidade na redução das desconexões no enfrentamento à pandemia [Quilombola communication, resistance and proximity to reduce disconnections in the fight against the pandemic]. *Mídia e Cotidiano*, 16(3), 28-48. <https://periodicos.uff.br/midiaecotidiano/article/view/54383>
- Lopes, I. S., Caetano, L. R., & Cardoso, J. S. M. (2022). Comunicação quilombola, resistência e proximidade na redução das desconexões no enfrentamento à pandemia [Quilombola communication, resistance and proximity in reducing disconnections in the fight against the pandemic]. *Mídia e Cotidiano*, 16(3), 28-48. DOI: <https://doi.org/10.22409/rmc.v16i3.54383>
- Maria da Silva, G., & Souza, B. O. (2022). Quilombos in Brazil and the Americas: Black resistance in historical perspective. *Agrarian South: Journal of Political Economy*, 11(1), 112-133. <https://doi.org/10.1177/22779760211072193>
- Martins, H., Lopes, I. S., & Bastos, M. D. (2021). Desiguais e desconectados: a exclusão Infocomunicacional no Brasil [Unequal and disconnected: Infocommunicational exclusion in Brazil]. In Daniela Monje (Coord.), A. Fernandez & A. L. Hidalgo (Eds.), *(Des)iguales y (des)conectados. Políticas, actores y dilemas info-comunicacionales en América Latina*. Buenos Aires: Clacso, vol. I, 59-82. <https://www.clacso.org/en/desiguales-y-desconectados/>
- Melo, P. V. (2023, April 28). *Plataformização do acesso a serviços aprofundou desigualdades históricas* [Platformization of access to services has deepened historical inequalities]. *Le Monde Diplomatique Brasil*. <https://diplomatie.org.br/plataformizacao-do-acesso-a-servicos-aprofundou-desigualdades-historicas/>

- Nascimento, A. (2019). *Quilombismo: Documentos de uma militância Pan-Africanista* [Quilombismo: Documents of a Pan-Africanist militancy] (Third revised ed.). Perspectiva. (Originally published 1980)
- Nascimento, B. (2021). *Uma história feita por mãos Negras: Relações raciais, Quilombos e o movimento* [A history made by Black hands: Race relations, Quilombos and the movement]. Zahar. <https://tinyurl.com/ywbwwef3>
- Organização das Nações Unidas Brasil (ONU). (2015). *Objetivo de Desenvolvimento Sustentável 5: Igualdade de gênero Alcançar a igualdade de gênero e empoderar todas as mulheres e meninas* [Sustainable Development Goal 5: Gender Equality Achieve gender equality and empower all women and girls]. <https://brasil.un.org/pt-br/sdgs/5>
- Organización de los Estados Americanos (OEA). (2011). *Relatores da liberdade de expressão emitem declaração conjunta na Internet*. [Freedom of expression rapporteurs issue joint statement on the Internet]. <https://www.oas.org/pt/cidh/expressao/showarticle.asp?artID=849&lID=4>
- Pasti, A. (2018). Milton Santos' contributions to thinking about the democratization of communication. In M. J. Baldessar & D. I. Monje (Eds.), *Latin American dialogues: Communication and democracy in times of convergence* (pp. 47-62). Intercom.
- Pereira, C. N., & Nunes de Castro, C. (2021). *Educação em áreas rurais: diferenças entre áreas rurais e urbanas* [Education in rural areas: differences between rural and urban areas] (Texto para Discussão, n. 2632). Ipea. https://repositorio.ipea.gov.br/bitstream/11058/10501/1/td_2632.pdf
- Rachid, R., Fornazin, M., Castro, L., Gonçalves, L. H., & Penteadó, B. E. (2023). Saúde digital e a plataformização do Estado brasileiro [Digital health and the platformization of the Brazilian state]. *Ciência & Saúde Coletiva*, 28, 2143-2153. <https://doi.org/10.1590/1413-81232023287.14302022>
- Rajkhowa, P., & Qaim, M. (2022). Mobile phones, women's physical mobility, and contraceptive use in India. *Social Science & Medicine*, 305, 115074. <https://doi.org/10.1016/j.socscimed.2022.115074>
- Ritchie, H. A. (2022). An institutional perspective to bridging the divide: The case of Somali women refugees fostering digital inclusion in the volatile context of urban Kenya. *New Media & Society*, 24(2), 345-364. <https://doi.org/10.1177/14614448211063186>
- Rocillo, P., & Bárbara Gomes, A. (2022). Marcadores de gênero na promoção da inclusão digital no Brasil [Gender markers in the promotion of digital inclusion in Brazil]. In B. Barbosa, L. Tresca & T. Lauschner (Eds.), *ICT, Internet governance and gender: Race and diversity* (pp. 85-114). São Paulo, SP: Núcleo de Informação e Coordenação do Ponto BR. <https://www.cgi.br/media/docs/publicacoes/1/20230427163434/3-coletanea-artigos-tic-governanca-genero-raca-diversidade.pdf>

- Rogéria de Andrade Nunes, N. (2021). Mulheres da favela: Interseccionalidades e territorialidades. [Favela women: Intersectionalities and territorialities]. *Em Pauta, Rio de Janeiro*, 19(4), 103-120. DOI: <https://doi.org/10.12957/rep.2021.56073>
- Rotondi, V., Billari, F., Pesando, L. M., & Kashyap, R. (2020). *Desigualdad digital de género en América Latina y el Caribe* [Digital and gender inequality in Latin America and the Caribbean]. *Instituto Interamericano de Cooperación para la Agricultura*. <https://repositorio.iica.int/handle/11324/12489>
- Santana, K. C. E. (2012). Behind the Palisades of Palmares: A rewriting of Zumbi's story by Leda Maria de Albuquerque Noronha. [Conference proceedings]. In *Literatura, crítica, cultura VI: Disciplina, cânone, continuidades & rupturas* (pp. 1-14). UFJF.
- Santos, M. (1993). *Urbanização Brasileira* [Brazilian Urbanization]. São Paulo: Hucitec.
- Santos, M., & Silveira, M. L. (2001). *Brazil: Territory and society at the beginning of the 21st century*. Record.
- Santos, R. E., & Correa, G. S. (2007). A geografia Negra das comunidades remanescentes de quilombos no Brasil [The Black geography of the remaining quilombo communities in Brazil]. In R. E. Santos (Org.), *Diversity, space and ethnic-racial relations: Black people in the geography of Brazil*. Belo Horizonte: Autêntica.
- Schelenz, L. (2023). Technology, power, and social inclusion: Afghan refugee women's interaction with ICT in Germany. *The International Journal of Information, Diversity, & Inclusion*, 7(3/4), 1-31. <https://www.jstor.org/stable/48750681>
- Simões, M., Las Heras, S., & Augusto, A. (2011). Género e tecnologias da informação e da comunicação no espaço doméstico: não chega ter, é preciso saber, querer e poder usar [Gender and information and communication technologies in the domestic space: It's not enough to have, you have to know, want and be able to use]. *Configurações* [Online], 8 17pp. <https://doi.org/10.4000/configuracoes.831>
- Sinha, S., Shrivastava, A., & Paradis, C. (2019). A survey of the mobile phone-based interventions for violence prevention among women. *Advances in Social Works*, 19(2), 493-517. <https://doi.org/10.18060/22526>
- Souza, B. O. (2016). *Aquilombar-se: Panorama sobre o movimento quilombola brasileiro* [Aquilombar-se: Overview of the Brazilian Quilombola movement]. Curitiba: Appris.
- Tacchi, J., Kitner, K. R., & Crawford, K. (2012). Meaningful mobility: Gender, development and mobile phones. *Feminist Media Studies*, 12(4), 528-537. DOI: <https://doi.org/10.1080/14680777.2012.741869>
- Theodoro, M. (2022). *A Sociedade Desigual* [The Unequal Society]. Rio de Janeiro: Schwarcz.

-
- UNESCO Institute for Information Technologies in Education, & Karpati, A. (2011, May). *Digital literacy in education* [Policy brief]. Institute for Information Technologies in Education, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000214485>
- Vinuto, J. (2014). Amostragem bola de neve na pesquisa qualitativa: Um debate aberto. [Snowball sampling in qualitative research: An open debate]. *Temáticas, Campinas*, 22(44), 203-220. <https://doi.org/10.20396/tematicas.v22i44.10977>
- Warschauer, M. (2004). *Technology and social inclusion: Rethinking the digital divide*. MIT Press. DOI: <https://doi.org/10.7551/mitpress/6699.001.0001>
- Wilson, C., Grizzle, A., Tuazon, R., Akyempong, K., & Cheung, C-K. (2013). *Alfabetização midiática e informacional: Currículo para formação de professores* [Media and information literacy: Curriculum for teachers]. UNESCO, UFTM. <https://unesdoc.unesco.org/ark:/48223/pf0000220418>

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