CONNECTING ROOTS: THE DIGITAL FUTURE IN INDIGENOUS COMMUNITIES

PATHWAYS AND RECOMMENDATIONS TO REINFORCE THE DIGITAL RIGHTS OF INDIGENOUS WOMEN IN BOLIVIA

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ABSTRACT

Bolivia is in the midst of an effort to provide internet access to remote rural areas of the country through the use of satellite internet and community networks as an alternative to reduce the huge connectivity gap between urban and rural areas (Barrantes & Aguero, 2016; Alliance for Affordable Internet, 2019).

This has enabled numerous Bolivian citizens to experience internet access for the first time, which has allowed them to take advantage of educational resources, establish communication with family members residing in urban areas of Bolivia and even abroad. The impact of this initiative has been particularly notable and transformative in indigenous communities (Frąckiewicz Marcin, 2023).

However, this progress also poses a new challenge for Bolivia: the need to address gender issues in legislative changes and public policies related to *digital rights* (Benavente Cristina & Valdés B. Alejandra, 2014). These changes must cover areas such as online violence, the safeguarding of privacy, the protection of personal data and the right to a free existence in *the digital realm* (Coronado, C. L., Quiroz, E., & Foronda, 2018).

Two gender-focused innovations in Bolivia can emerge from these challenges. First, there is the possibility for indigenous women to participate in the formulation of digital policies specifically directed at their needs (García Zaballos, A., Puig Gabarró, P., & Iglesias Rodriguez, 2022). This would ensure that policies are designed in an inclusive manner and consider the unique perspectives and experiences of indigenous women. Second, it highlights the importance of preventing and addressing *digital harm* in rural areas from the early stages of the problem (García Terán, 2021). This implies implementing preventive and educational measures that empower rural communities to recognize and face the risks associated with the use of the Internet and technology (Gomez, R., & Gould, 2010).

Both innovations would not only contribute to closing the gender gap in the digital sphere, but would also allow rural areas to experience the benefits of connectivity safely and effectively.

DIGITAL RIGHTS

Digital rights refer to the ethical and legal principles that protect individuals' freedoms and privacy in the digital realm, encompassing issues like internet access, data privacy, and freedom of expression online.

DIGITAL REALM

The digital realm refers to the virtual space or domain where data, information, and communication occur using electronic devices and digital technologies.

DIGITAL HARM

Is any activity or behavior that takes place in a digital ecosystem and causes pain, trauma, damage, exploitation or abuse directly or indirectly in either the digital or physical world, whether financial, physical, emotional, psychological or sexual.

BOLIVIAN INTERNET ACCESS
TODAY AND TOMORROW

Bolivia, being a country without direct access to the sea, faces a series of challenges that require a robust policy response to improve its telecommunications sector. Its mountainous topography, the absence of a seacoast, its relative economic isolation from the rest of the world, and susceptibility to catastrophic weather events that can damage infrastructure are just some of the characteristics that make it difficult to provide universal Internet access (Campero, A., 2017). The presence of numerous impoverished and remote communities also adds complexity to this challenge. Compared to neighboring coastal nations, Bolivia faces higher telecommunications infrastructure implementation costs (Lancaster H. 2023). This is due to higher equipment, transportation, and installation expenses, factors that are compounded by the country's average income relative to its neighbors. Together these elements explain why Bolivia has made slower progress in connecting unreached regions than most other Latin American countries. However, with a strong policy response and innovative approaches, it is possible to overcome these obstacles and move towards greater digital inclusion throughout the country (Inter-American Development Bank (IDB), 2020).

In addition to what has been mentioned, it is important to highlight that in rural areas of Bolivia, the access to fixed *broadband* is practically non-existent, since most of the Population accesses the Internet through mobile broadband (El País, 2020).

In response to this situation, Bolivia has adopted an alternative solution to provide connectivity and access to digital content in remote areas: the implementation of *community networks*. These community networks are managed and owned collectively by the communities themselves (Levy, G., 2023). Its main function is to create a municipal level *intranet* that provides the ability to browse the web, upload and download freely accessible content such as music, videos and information. This content may come from various sources, including the municipality or entity autonomous indigenous people, the national government (as contained in the Ministry of Education) and also from the local population in the form of blogs and wikis (Jordan W, 2021). The key advantage is that these resources are available to the community as a whole, which encourages participation, information sharing and access to valuable resources in areas that previously were digitally disconnected. This strategy demonstrates an approach that will allow addressing connectivity challenges in rural regions and is a significant step towards bridging the digital divide in Bolivia (DPL News, 2023).

On July 5, 2023, The Telecommunications and Transportation Regulation and Oversight Authority (ATT) of Bolivia approved and announced the start of a call for the allocation of *Radio frequencies for fixed internet* with the purpose of benefiting the rural localities of the country.

BROADBAND

Broadband is a high-speed internet connection that allows for faster data transmission, enabling efficient access to online content and services.

COMMUNITY NETWORKS

Community networks are locally managed and collectively owned networks, often at the municipal level, designed to provide internet access and digital content to remote areas, primarily owned and operated by the communities they serve.

INTRANET

An intranet is a private network within an organization or community that uses internet technologies to share information, resources, and communication tools among its members.

The Telecommunications and Transportation Regulation and Oversight Authority (ATT) reported that the coverage of fixed internet has reached 55% of households in the national territory. However, with the aim of guaranteeing that all rural communities in the country have access to internet services and expand coverage, a call has been launched intended for operators to provide said service in rural areas. This radio frequency assignment will be made free of charge. The frequencies granted will allow the selected operator to offer the service using a base station antenna and local equipment to supply the entire community. In addition, they will be able to provide the service to homes near the community through a router, which is a device for interconnecting networks. In total, the ATT aims to reach 104 rural towns in Bolivia with this initiative (Telecommunications and Transportation Regulation and Oversight Authority (ATT) of Bolivia, 2023).

Through this effort, Bolivia seeks to reduce *the digital divide* and facilitate community entrepreneurship in rural areas. With this, it is expected to increase internet access in these regions, where currently less than 10% of the rural population has fixed internet access (Ibáñez, M. A., 2022).

DIGITAL RIGHTS LANDSCAPE OF RURAL INDIGENOUS WOMEN

Indigenous Bolivian women are facing marginalization and exclusion from their digital rights due to disparities in opportunities, capabilities, and resources compared to other social groups when it comes to accessing, using, and benefiting from information and communication technologies "ICTs" (Grown, C., & Lundwall, 2016). Several factors contribute to this situation. One of them is the absence of strategic digital policies to safeguard native languages and cultures, which means that indigenous women cannot communicate, express themselves, access information in their own languages, or preserve and transmit their ancestral knowledge and worldviews through ICTs. Furthermore, their right to cultural identity and linguistic diversity is violated, both of which are fundamental elements for their human and social development (León, N., 2022).

Another factor is the lack of available data to advance the understanding of the unique digital needs of indigenous women. This scarcity of information prevents the design and implementation of policies, programs, and projects that address their specific realities, interests, and demands. It also hinders the monitoring and evaluation of progress and challenges in terms of digital rights for this demographic (Hurtado Moncada, M. J., 2020). Additionally, it obscures the situation and contributions of indigenous women to the digital development of Bolivia.

RADIO FREQUENCIES FOR FIXED INTERNET

Radio frequencies for fixed internet are the specific airwaves that are used to provide stable internet connections, especially in rural areas. These frequencies are divided into smaller sections and are given to companies or organizations to offer internet services to people living in different rural communities.

THE DIGITAL DIVIDE

The digital divide is the gap between those with access to digital technologies and the internet and those without, leading to disparities in information, education, and economic opportunities, limiting the prospects of marginalized communities. Efforts to bridge this divide include initiatives for equitable internet access and digital literacy promotion to foster a more inclusive society.

A third factor is the persistence of unequal gender norms, especially in rural communities, which implies that indigenous women face economic, geographic, cultural, and generational barriers to *Information and communication technologies (ICT)* access. They also experience digital violence, such as harassment, defamation, manipulation, and the unauthorized exposure of personal data. Furthermore, their participation and influence in the digital sphere are limited, as their access to education, employment, political and social participation, and decision-making regarding ICTs is restricted (FILAC, 2023).

A fourth factor is the lack of support for initiatives that promote online security and digital literacy. This means that indigenous women lack the necessary skills and abilities to navigate, create, and harness the potential of ICTs (Hurtado Moncada, M. J., 2020). They are also unaware of their digital rights and how to exercise them, as well as the risks and opportunities presented by the digital realm. Moreover, their initiatives and networks aimed at creating content, amplifying their voices and demands, influencing public agendas, and defending their human rights in the digital space are underutilized.

These factors create a situation of digital exclusion that negatively impacts indigenous Bolivian women, especially those residing in rural or peri-urban areas. Therefore, it is essential to recognize, value, and promote the digital rights of indigenous women as an integral part of their human rights (Grown, C., & Lundwall, J., 2018).

The belief that digital technology promotes equitable development in communities may actually perpetuate existing gender inequalities. Contrary to this notion, technology can favor certain segments of the population while accentuating pre-existing inequalities, particularly those that affect women, who have been historically marginalized (Bahous, S., 2021).

It is essential to understand that the current digital transformation that is impacting rural Bolivia does not provide a level playing field for all genders. As the *digital ecosystem* expands and internet access expands in these areas, there is a risk that these inequalities will further intensify (Rotondi, V., 2020). Specifically, Bolivian indigenous communities could be affected, maintaining and even reinforcing entrenched patriarchal perspectives (García Terán, M., 2021).

Therefore, it is imperative to take a conscious and proactive approach to address these issues of gender and inequality as technology becomes more integrated into these communities. This means not only expanding access to technology, but also ensuring that women have an active role in technology decision-making, that cultural and social barriers that may limit their participation are addressed, and that inclusive digital education is encouraged (UN Women, 2023). Only through these actions will it be possible to move towards digital development that is truly equitable and empowering for all members of the community, regardless of their gender.

To achieve true equality in the digital space, it is essential to ensure that all people can exercise their rights with autonomy and tranquility.

However, gender inequalities persist in this area, especially for women. In the case of indigenous women, these inequalities are compounded by challenges such as discrimination, economic dependency, systemic violence and social conflicts (Hurtado Moncada, M. J., 2020). In the rural areas of Bolivia, access to digital technologies is limited and does not contribute to the empowerment of indigenous women and girls. Furthermore, this access is unsafe for them. Gender violence, rooted in the patriarchal system Bolivian, acts as a barrier that prevents indigenous women and girls from being able to take full advantage of technologies (UN Women & FILAC, 2021).

In the process of expanding connectivity, indigenous women in rural areas have not experienced the same benefits as the population in the cities (García Zaballos, A., Puig Gabarró, P., & Iglesias Rodriguez, 2022). This is because they face different challenges depending on their age, ethnic group, level of economic dependence and environmental conditions. It is crucial that the Bolivian government address these complex issues through systemic solutions. This implies developing strategies co-created with women indigenous peoples to guarantee their inclusion in the rural digital transformation (Muywaso, 2022). It is also necessary to address gender issues in legislative and policy changes related to digital rights. In this way, it is possible to promote equitable access to technology and empower indigenous women to fully participate in the digital world on equal terms (FILAC, 2023).

To ensure the success of this process, it is essential to implement a series of strategic approaches and actions:

1 **COMMUNITY LISTENING AND RECOGNITION OF ANCESTRAL KNOWLEDGE:** Integrate community listening to women throughout the design and implementation process. Valuing and respecting ancestral knowledge and the voices of indigenous women is crucial to ensure real inclusion and the effectiveness of the proposed solutions (United Nations, 2019).

2 **DATA COLLECTION AND DISAGGREGATED DATA:** The Bolivian government should collect specific data on the internet access of rural women with ethnic origin. The lack of disaggregated data makes it difficult to understand and address the specific inequalities that these women face (Agenda Pais, 2020).

3 **EMPOWERMENT AND DIGITAL SKILLS:** Design programs that empower girls in the use of digital skills, especially in contexts where cultural norms limit their access to technology. These programs can challenge gender perceptions and help transform girls' participation in areas traditionally occupied by men (Bogdan-Martin, D., 2023) & (InternetBolivia.org., 2023).

4 **CHANGES IN SOCIAL NORMS:** Design technological solutions that empower women in roles traditionally assigned to men, such as agriculture, climate information management and obtaining credit. These solutions can contribute to changing the status of women within the family and community (UN Women., 2023).

5 **SECURITY AND PROTECTION:** Implement strategies to ensure security both offline and online. Avoid the sharing of equipment and provide training to indigenous women on online safety and digital violence. Identifying times and places of risk and offering online protection training is essential (UN Women, 2022).

6 **DIGITAL LITERACY AND CONTENT CREATION:** Facilitate basic digital literacy and digital skills development to train indigenous women as creators of digital content. Encouraging the production of local content of interest to local women can change their role from passive consumers to active participants in the digital space (Us, H., 2022).

7 **CULTURALLY RELEVANT AND NATIVE LANGUAGE:** It is vitally important to identify alternatives that allow indigenous women to develop their digital skills in a way that is compatible with their worldview and their native language. The most complex challenge for indigenous peoples in terms of digital transformation is bridging digital divides in a culturally relevant way. Even if electricity coverage is improved, access to internet services is increased and the provision of devices, if the development of digital skills is not encouraged and if digital content continues to be in the dominant languages, the risk of cultural assimilation would be accentuated, this time through digital technology. In Bolivia, the predominant language on the Internet is Spanish, and content in indigenous languages is scarce (Internet Bolivia Foundation + Aguayo Association., 2020-2021).
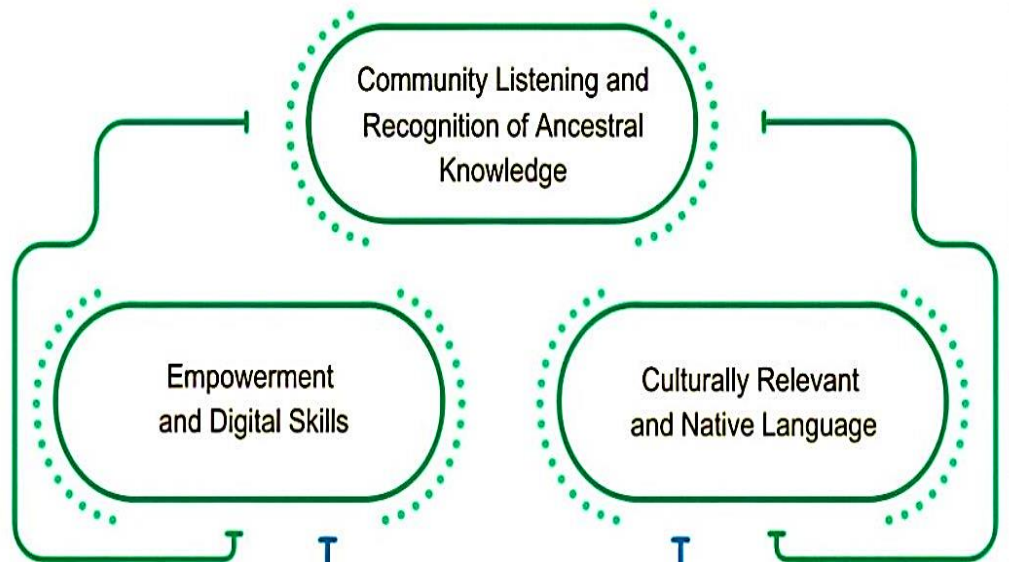
This culturally relevant approach not only recognizes and values the linguistic and cultural diversity of indigenous communities, but also ensures that the adoption of digital technology does not compromise their identity and cultural heritage.

Taken together, these strategies and recommendations address multidimensional challenges, from the inclusion and empowerment of indigenous women to transforming social norms and creating a safe and accessible online environment. Only through a comprehensive and collaborative approach can true equality be achieved in the digital space and overcome inequalities rooted in Bolivia's rural communities.
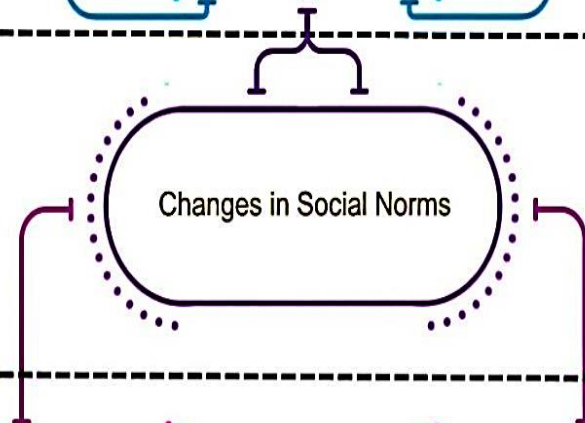
| Growing Necessities	Recommendations' Approach
Requirement for Strategic Digital Policies to Safeguard Native Languages and Cultures	Community Listening and Recognition of Ancestral Knowledge Empowerment and Digital Skills — Culturally Relevant and Native Language
Demand for More Available Data to Advance Understanding of the Unique Digital Needs of Indigenous Women	Data Collection and Disaggregated Data
Imperative for Further Progress in Shifting Gender Norms, Especially in Rural Communities	Changes in Social Norms
Call for Increased Support for Initiatives Promoting Online Safety and Cultivating Digital Literacy	Security and Protection — Digital Literacy and Content Creation
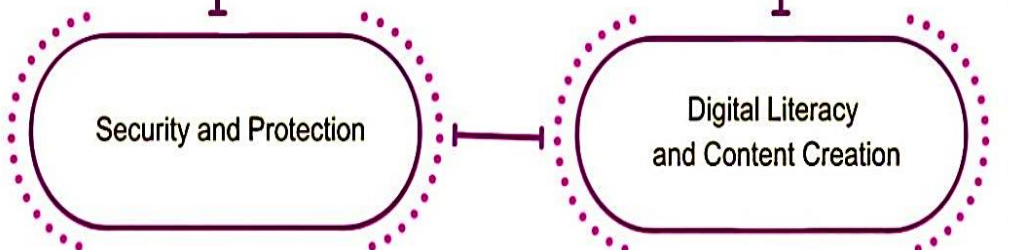
CONCLUSION

This article analyzes the state of the digital landscape in Bolivia, shedding light on the pressing challenges faced by indigenous communities, with a distinct focus on women, emphasizing the digital rights of indigenous women. It also evaluates the current status of connectivity and internet accessibility in rural regions of Bolivia and presents seven strategies and recommendations aimed at addressing a fresh challenge that Bolivia is confronting: the need to integrate gender perspectives into legislative reforms and public policies concerning digital rights, all while preserving the cultural languages and traditions of indigenous communities.

Firstly, although digital technology access is on the rise, it does not inherently guarantee gender equality. This article underscores the central argument by acknowledging the reality that while increased digital access is a significant step in the right direction, it does not automatically translate into proportional digital rights or digital literacy. In fact, an increase in technology adoption without concurrent consideration of existing disparities could exacerbate inequalities rather than alleviate them. Therefore, careful facilitation is required to ensure that indigenous women are not mere passive recipients of technology but active participants in the digital discourse, with the ability to influence decisions that directly and structurally affect them.

Secondly, embedded within this complex issue is the role of the Plurinational State of Bolivia. With fewer than 10% of rural households having access to quality internet, the government's role becomes critical in bridging the rural-urban digital divide. Alongside this issue of the digital divide is the matter of online security, a highly relevant concern. Indigenous women, due to a range of complex social factors, often find themselves at the receiving end of online threats. Therefore, it is our responsibility not only to acknowledge this situation but also to devise strategies that promote a digital security environment. An important aspect of our recommendations involves increasing digital literacy rates in this vulnerable group and enhancing their ability to navigate the digital world with confidence and security. Furthermore, the amplification of culturally contextualized digital content in indigenous languages is a necessity, one that strengthens the bonds between these communities and the digital spaces they inhabit and enriches their online experiences.

For future work, it is essential that the Plurinational State of Bolivia recognizes and fulfills its obligation to ensure the full exercise of digital rights for indigenous women. This involves the implementation of policies and measures that promote digital inclusion and combat online violence, safeguarding privacy and effectively protecting personal data. For these efforts to be successful, the active participation of indigenous women in the formulation of specific digital policies addressing their needs and realities is important. This entails recognizing their expertise and unique knowledge, promoting the inclusion of their voices in decision-making related to digital rights. Governmental efforts must address gender-specific concerns in the digital world, particularly those that impact Bolivia's indigenous women.

Despite the progress observed in digital inclusion initiatives, it is crucial to note that technology is not a miraculous solution for addressing deep-rooted social disparities. Technology, being a product of society, can reflect and perpetuate preexisting biases and stereotypes. However, it can also become a tool for change if shaped wisely. Therefore, at the heart of ongoing digital development, it is crucial to consider the unique cultural nuances and social realities of indigenous communities, with a special emphasis on women, to ensure that technological advancement and digital inclusion consciously embody their perspectives and worldviews. With sustained efforts, ongoing research, and innovative digital strategies rooted in sociocultural realities, the full potential of inclusive digital access can become an attainable reality.

REFERENCES

1- Barrantes, R., & Aguero, A. (2016). Bridging the Rural Digital Gap. Information Technologies & International Development, 12. Retrieved from: fao.org/3/ah503e/ah503e.pdf

2- Alliance for Affordable Internet (2019). Bolivia: Building the infrastructure for rural connectivity. Good Practices Database. Washington DC: Web Foundation.Retrieved from:
https://a4ai.org/research/good-practices/building-the-infrastructure-for-rural-connectivity/

3- Frąckiewicz Marcin (2023).Internet in Bolivia. Exploring the Digital Divide: Examining Internet Access in Rural and Urban Areas. TS2 Space Website .Retrieved from:
https://ts2.space/en/internet-in-bolivia/

4- Benavente Cristina & Valdés B. Alejandra (2014). Public Policies for Gender Equality: A Contribution to Women's Autonomy. Plurinational State of Bolivia: Gender Parity and Alternation in State Electoral Bodies and Intermediate Instances, p. 55-72, Retrieved from:
https://repositorio.cepal.org/server/api/core/bitstreams/101147e6-b9d7-4c18-b579-2a5ac0ca3793/content

5- Coronado, C. L., Quiroz, E., & Foronda, A. (2018). Protection of Personal Data and Digital Rights. Friedrich Ebert Stiftung Bolivia, APUNTES 2/2018, p. 1-15. Retrieved from:
https://library.fes.de/pdf-files/bueros/bolivien/14660.pdf

6 - García Zaballos, A., Puig Gabarró, P., & Iglesias Rodriguez, E. (2022). Digital Connectivity in Bolivia: Analysis, Gaps, and Action Plan. Inter-American Development Bank. Retrieved from:
https://publications.iadb.org/es/conectividad-digital-en-bolivia-analisis-brechas-y-plan-de-accion

7- García Terán, M. (2021). Cyberfeminism and Social Transformation in Latin America and the Caribbean. Fundación Carolina. Retrieved from:
https://www.fundacioncarolina.es/wp-content/uploads/2021/06/DTE6.pdf

8- Gomez, R., & Gould, E. (2010). The "Cool Factor" of public access to ICT: Users' Perceptions of trust in libraries, telecentres and cybercafés in developing countries. Information Technology for Development, 16(3), 232-249. Retrieved from:
https://www.researchgate.net/publication/220437023_The_cool_factor_of_public_access_to_ICT_Users'_perceptions_of_trust_in_libraries_telecentres_and_cybercafes_in_developing_countries

9- Campero, A. (2017). Broadband Policies for Rural Areas in Bolivia. Internet Bolivia. Retrieved from:
https://internetbolivia.org/wp-content/uploads/2017/05/Campero-merged.pdf

10- Lancaster Henry, BuddeComm. (2023). Bolivia - Telecoms, Mobile and Broadband - Statistics and Analyses. Retrieved from:
https://www.budde.com.au/Research/Bolivia-Telecoms-Mobile-and-Broadband-Statistics-and-Analyses

11- Banco Interamericano de Desarrollo. (2020). Conectividad digital en Bolivia: análisis, brechas y plan de acción. Retrieved from: https://publications.iadb.org/publications/spanish/document/Conectividad-digital-en-Bolivia-analisis-brechas-y-plan-de-accion.pdf

12- El País. (2020). Bolivia Among the Countries with the Lowest Internet Connectivity in Rural Areas in the Continent. El País Website. Retrieved from: https://elpais.bo/nacional/20201029_bolivia-entre-los-paises-con-mas-baja-conectividad-a-internet-en-areas-rurales-del-continente.html

13-. Levy, G. (2023). Community Networks to Combat the Digital Divide. AndinaLink. Retrieved from: https://andinalink.com/redes-comunitarias-para-combatir-la-brecha-digital/

14- Jordan W. (2021). Internet Access Guide. Internet Bolivia Foundation. Retrieved from: https://internetbolivia.org/wp-content/uploads/2021/11/guia_acceso_internet.pdf

15- DPL News. (2023). Bolivia has 84% coverage in mobile internet and 55% fixed; they seek to expand the service in the rural area. Retrieved from: https://dplnews.com/bolivia-cuenta-con-una-cobertura-del-84-en-internet-movil-y-55-de-fijo-buscan-ampliar-el-servicio-en-el-area-rural/

16- Telecommunications and Transportation Regulation and Oversight Authority (ATT) of Bolivia. (2023). Regulatory Administrative Resolution ATT-DJ-RAR-TL-LP-389/2022. Retrieved from: https://www.att.gob.bo/resolucion-administrativa-regulatoria-att-dj-rar-tl-lp-3892022aprobar-la-convocatoria-y-el

17- Telecommunications and Transportation Regulation and Oversight Authority (ATT) of Bolivia. (2023). ATT launches call for the provision of fixed internet to the rural area. Retrieved from: https://www.att.gob.bo/la-att-lanza-convocatoria-para-provisionar-de-internet-fijo-al-area-rural

18- Ibáñez, M. A. (2022). Less than 10% of rural households have internet. La Razón. Retrieved from: https://www.la-razon.com/financiero/2022/02/27/menos-del-10-de-los-hogares-rurales-tienen-internet/

19- Grown, C., & Lundwall, J. (2016). In Bolivia, being female and Indigenous conveys multiple disadvantages. Voices. Retrieved from: https://blogs.worldbank.org/voices/bolivia-being-female-and-indigenous-conveys-multiple-disadvantages.

20- León, N. (2022). Digital divide and presence of indigenous languages on the Internet. Social Technologies Laboratory. Retrieved from: https://labtecnosocial.org/brecha-digital-y-la-presencia-de-lenguas-en-internet/

21- Hurtado Moncada, M. J. (2020). Access to Digital Technologies for Rural Indigenous Women. Barriers, Catalysts and Dreams. Thesis (Master), E.T.S. of Agronomic, Food and Biosystems Engineering (UPM). Retrieved from: https://oa.upm.es/63760/1/TFM_Hurtado_Moncada_Merlyn_Johanna.pdf

22- FILAC. (2023). Digital divide affects indigenous women more, therefore access and use of technologies must be promoted. Retrieved from: https://www.filac.org/brecha-digital-afecta-mas-a-mujeres-indigenas-por-ello-se-debe-promover-el-acceso-y-uso-de-tecnologias/

23- Grown, C., & Lundwall, J. (2018). Bolivia: Being female and indigenous conveys multiple disadvantages. World Bank Blogs. Retrieved from: https://blogs.worldbank.org/voices/bolivia-being-female-and-indigenous-conveys-multiple-disadvantages

24- Bahous, S. (2021). Technology and gender equality: placing women and girls at the center of the digital revolution. UN Chronicle. Retrieved from: https://www.un.org/es/cr%C3%B3nica-onu/tecnolog%C3%ADa-e-igualdad-de-g%C3%A9nero-situar-las-mujeres-y-las-ni%C3%B1as-en-el-centro-de-la

25- Rotondi, V. (2020). Digital exclusion: an obstacle that hinders rural women's work. Inter-American Institute for Cooperation on Agriculture. Retrieved from: https://blog.iica.int/en/blog/digital-exclusion-obstacle-hinders-rural-womens-work

26- UN Women. (2023). How to ensure an equitable digital future. Retrieved from: https://www.unwomen.org/es/noticias/articulo-explicativo/2023/03/como-asegurar-un-futuro-digital-equitativo

27- UN Women & FILAC. (2021). Indigenous women face greater barriers to exercise their rights. UN Women - Latin America and the Caribbean. Retrieved from: https://lac.unwomen.org/es/noticias-y-eventos/articulos/2021/03/mujeres-indigenas-enfrentan-may

28- Muywaso. (2022). Bolivian women also fight for their digital rights. Muywaso Website. Retrieved from: https://muywaso.com/las-mujeres-bolivianas-luchan-tambien-por-sus-derechos-digitales/

29- United Nations. (2019). Traditional knowledge is at the core of indigenous identity, culture, languages, heritage and livelihoods, and its transmission from one generation to the next must be protected, preserved and encouraged. Retrieved from: https://press.un.org/en/2019/hr5431.doc.htm

30- Agenda Pais. (2020). At least 77 million people without quality internet access in rural areas of Latin America and the Caribbean. El Mostrador Website. Retrieved from: https://www.elmostrador.cl/agenda-pais/2020/11/05/al-menos-77-millones-de-personas-sin-acceso-a-internet-de-calidad-en-areas-rurales-de-america-latina-y-el-caribe/

31- Bogdan-Martin, D. (2023). ITU at CSW67: Get girls into STEM and empower them with digital skills. ITU News. Retrieved from: https://www.itu.int/hub/2023/03/itu-at-csw67-get-girls-into-stem-and-empower-them-with-digital-skills/

32- InternetBolivia.org. (2023). Women for digital rights. Retrieved from: https://internetbolivia.org/mujeres-digitales/

33- UN Women. (2022). Moving forward: Preventing online violence against women. Interview with Marwa Azelmat. Retrieved from: https://www.unwomen.org/es/noticias/reportaje/2022/11/hacia-adelante-prevenir-la-violencia-en-linea-contra-las-mujeres

34- Us, H. (2022). The triple barrier to reducing digital gaps for indigenous peoples. What if we talk about equality? Retrieved from:
https://blogs.iadb.org/igualdad/es/brechas-digitales-pueblos-indigenas/

35- Internet Bolivia Foundation + Aguayo Association. (2021). Women for digital rights and technologies in Bolivia. Indela. Retrieved from:
https://indela.fund/fundacion-internet-bolivia-asociacion-aguayo/

36- Internet Bolivia Foundation + Aguayo Association. (2020). Multicultural frameworks of digital rights for indigenous and Afro-descendant communities in Bolivia: comparative analysis and incidence in public policies. Indela. Retrieved from: https://indela.fund/fundacion-internet-bolivia-asociacion-aguayo/