

Diminishing Digital Space: The Gender Gap Online For Women In India

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“That country and that nation which do not respect women have never become great, nor will ever be in future” – Swami Vivekananda

Abstract

The digital landscape in India reflects offline inequalities, perpetuating a significant gender gap online, particularly for women. Despite technological advancements, socio-cultural norms, economic disparities, and cyber violence hinder their digital inclusion. Women face barriers such as online harassment and biases, impeding their full participation in the digital realm. Cyber violence against women is widespread, exploiting ICT tools to target them, even extending to high-profile figures like activists and journalists. The trend shrinks the online space for women, fostering insecurity and deterring engagement. Efforts like legal frameworks aim to bridge the gap, challenges persist. Empowering women through digital literacy and promoting online safety are crucial for enhancing their participation and creating a safer online environment. The study examines the multifaceted aspects of the gender gap in online access among Indian women, analyzing factors like socio-cultural norms and cyber violence to inform strategies for bridging the digital gender divide.

Keywords: Digital Space, Cyber world, Gender gap, Policies, Online Harassment.

Introduction

The digital landscape in India is rapidly evolving, yet a significant gender gap persists, particularly affecting women in rural areas. This disparity not only reflects a lack of access to technology but also perpetuates broader societal inequalities. Understanding the factors contributing to this digital divide is crucial for fostering gender equity in India's digital future. Historically, women in India have faced numerous barriers to digital access. As of the latest reports, only 33% of women in India have ever used the internet, compared to 57% of men. In rural areas, this gap is even more pronounced, with only 25% of women having internet access compared to 49% of men. This stark contrast highlights the systemic issues that inhibit women's participation in the digital realm, such as economic constraints, cultural norms, and educational disparities. The implications of this digital divide extend beyond mere access to technology. It encapsulates a broader spectrum of gender inequality, affecting women's educational opportunities, economic participation, and social empowerment. For instance, many girls in rural areas are unable to pursue online education and skill development due to a lack of access to Smartphone's and the internet. Families often prioritize boys' education, further entrenching gender biases.

The psychological impact of this divide is significant. Research indicates that providing women with smart phones can enhance their social networks and improve mental health, suggesting that access to technology can empower women in various aspects of their lives. The Indian government has recognized the need to bridge this digital gap and has initiated several programs aimed at increasing women's access to technology. The Pradhan Mantri Gramin Digital Saksharta Abhiyan,

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for example, aims to enhance digital literacy among rural populations. However, these initiatives face challenges, including entrenched societal attitudes that restrict women's autonomy and access to resources. Despite these efforts, the gender gap in digital literacy remains substantial. A recent study highlighted that only 40.65% of women have ever used the internet, compared to 63.06% of men, revealing a persistent gap that reflects broader societal inequalities. To effectively address the gender gap in digital access, a multifaceted approach is required. This includes improving infrastructure in rural areas, enhancing digital literacy programs tailored for women, and challenging societal norms that limit women's access to technology. Promoting female role models in technology and digital fields can inspire younger generations to pursue opportunities in these areas. The potential for women to contribute to India's digital economy is immense. With over 691 million women in the country, bridging the digital divide could unlock significant economic growth and innovation. The journey toward achieving gender equity in India's digital space is fraught with challenges, yet it is imperative for the nation's progress. Addressing the digital divide is not just about providing access to technology; it is about empowering women to participate fully in the digital economy and society. As India continues to advance technologically, ensuring that women are not left behind will be crucial for fostering a more inclusive and equitable future.

Objectives

The study's primary objectives are:

1. To analyze the factors contributing to the gender gap in internet access and usage among women in India, evaluating the impact of socio-cultural norms, economic disparities, and technological barriers on women's digital inclusion.
2. To examine the legal frameworks, policies, and initiatives aimed at bridging the digital gender divide in India, and to investigate the prevalence and consequences of online harassment and abuse faced by women in the digital space.

Methodology

The study utilized document analysis and analytical methods to collect primary data from social media platforms. Interviews were conducted with women in India who have experienced or been impacted by the gender gap in online spaces. Structured questionnaires were distributed via Google Forms and social media channels to survey these women. Additionally, inputs were gathered from various key stakeholders, including gender rights activists, technology experts, government officials involved in policy formulation, academics, researchers, and NGOs specializing in women's empowerment and digital inclusion. Secondary data from books, articles, national and international government reports, and websites were also utilized. Thematic analysis was employed to identify trends and patterns within the collected data, enabling a comprehensive exploration of the diminishing digital space and gender disparities online in India.

Result and Discussion

Factors to Gender Gap in Internet Access for Indian Women

The gender gap in internet access and usage is a persistent issue in India, with women lagging behind men in terms of digital inclusion. This disparity has far-reaching consequences, limiting women's opportunities for education, employment, and empowerment. Several factors contribute to this gap, which can be broadly categorized into social, economic, and infrastructure-related barriers. One of the primary factors contributing to the gender gap in internet access is the prevailing social norms and attitudes towards women's use of technology. In many parts of India, especially in rural areas, women are often seen as secondary citizens, and their access to resources, including digital devices, is restricted. This intra-household discrimination prevents women from equitably accessing digital devices within their homes, widening the gender-based digital divide. The use of mobile phones by women is sometimes viewed as a risk to their reputation, particularly before marriage.

After marriage, women's phone usage is often seen as an interruption to their care giving responsibilities. These social stigmas and gender stereotypes discourage women from actively engaging with digital technologies.

Economic factors also play a significant role in the gender gap in internet access. Women, especially those from low-income households, face affordability issues when it comes to accessing digital devices and internet services. The average price for data in India is \$0.68/GB, which can consume a significant portion of a low-income household's monthly income. The cost of Smartphone's and internet plans can be prohibitive for many women, particularly those from rural areas or lower socio-economic backgrounds. This financial barrier limits their ability to own and use digital devices, perpetuating the digital divide. The lack of adequate infrastructure in rural areas is another factor contributing to the gender gap in internet access. Rural broadband penetration in India is only 29%, compared to a national average of 51%. This rural-urban digital divide disproportionately affects women, as they are more likely to reside in rural areas. Poor network coverage, unreliable electricity supply, and limited access to digital devices in rural schools and communities further exacerbate the problem. These infrastructure-related barriers make it challenging for women to access and use the internet consistently, hindering their digital inclusion.

The gender gap in internet access has far-reaching consequences for Indian women. It limits their access to educational resources, skill development opportunities, and employment prospects in the digital economy. Women are often excluded from the growing digital economy, especially when aspiring for online schooling, skill training, entrepreneurship, and work opportunities. The digital divide can perpetuate existing inequalities and social norms that restrict women's autonomy and decision-making power. By denying women access to digital technologies, society denies them the opportunity to realize their full potential and contribute to the country's development. Bridging the gender gap in internet access is crucial for empowering Indian women and promoting inclusive growth. Addressing this issue requires a multi-pronged approach that tackles social, economic, and infrastructure-related barriers. Interventions should focus on increasing digital literacy, providing affordable access to digital devices and internet services, and improving infrastructure in rural areas.. Governments, civil society organizations, and private sector stakeholders must collaborate to create an enabling environment that encourages and supports women's digital inclusion. By investing in women's digital empowerment, India can harness its demographic dividend and ensure that its digital transformation benefits all citizens, regardless of gender.

Insights from the UN Broadband Commission Report

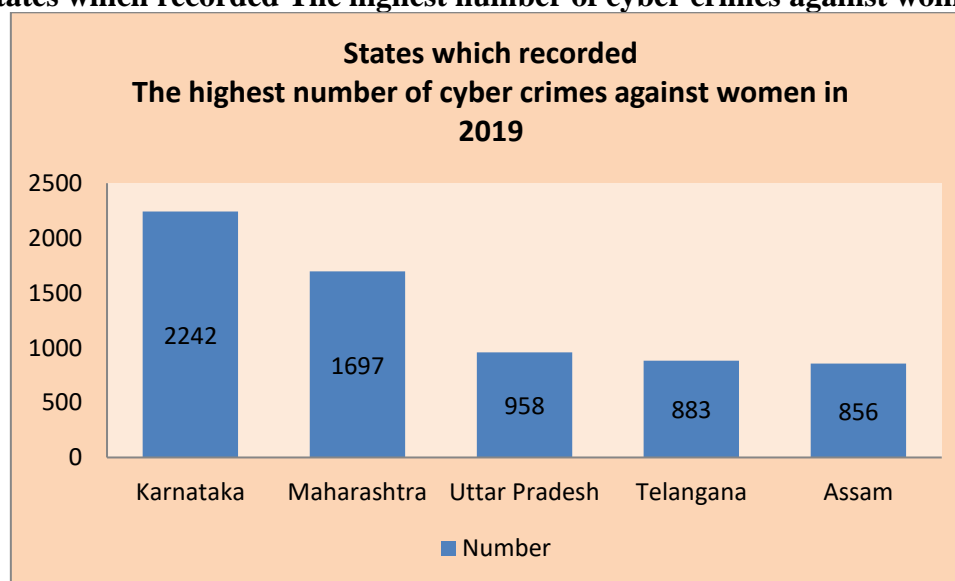
A groundbreaking report, titled "*Cyber Violence against Women and Girls: A Worldwide Wake-Up Call*," unveiled by the UN Broadband Commission at the United Nations, sheds light on the alarming prevalence of online violence (Women, U. N. 2015) experienced by women. Shockingly, the report reveals that a staggering 73% of women globally have encountered online violence, ranging from stalking to trolling and other forms of digital abuse. This underscores the disturbing reality that the internet and mobile technologies have ushered in new avenues for perpetrating violence against women in the digital age. The report underscores the crucial imperative of integrating efforts to promote Information and Communication Technologies (ICTs) within the broader framework of the (Bassan, L. 2019) Sustainable Development Goals (SDGs) adopted by 193 world leaders at the UN. By doing so, policymakers and stakeholders can more effectively address gender-based violence, including the insidious phenomenon of cyber violence. The report underscores how technology, holding the potential to empower women, can paradoxically exacerbate gender (Boukemiidja, N. B. 2018) inequalities by excluding women from accessing ICTs and enabling online violence against them. Importantly, one UN official emphasized that the psychological toll inflicted on women by online abuse is no less severe than physical violence endured within the confines of their homes. This underscores the urgent need for comprehensive measures to address cyber violence against women, ensuring that the digital space is safe, inclusive, and conducive to gender equality.

India's Battle with Cyber Risks and Gendered Violence

India has been grappling with the growing threat of cyber risks and gendered violence in recent years. As the country rapidly embraces digital technologies, it has also seen a surge in cyber crimes, particularly those targeting women and marginalized groups. The study explore the key facts and statistics related to this issue, as well as the efforts being made to address it. According to the National Crime Records Bureau (NCRB), cyber crimes in India increased by 24.4% in 2019 compared to the previous year. Within this category, crimes against women and girls have been particularly alarming. A 2019 report by the UN Special Rapporteur on Violence against Women noted that online violence can be a significant deterrent to women's digital skill development. Women and girls, especially those facing additional exclusion due to their race, age, ethnicity, sexual orientation, disability, religion or migrant status, are at higher risk of cyber attacks. More than a third of women worldwide have experienced abuse online, and this figure rises to almost 50% for younger women. In India, cybercrimes against women surged by 110% between 2018 and 2019, with a sharp increase in cases of publishing sexually explicit content. Gendered cyber violence takes many forms, including surveillance, rape threats, doxxing, non-consensual sharing of intimate images, sextortion, and online harassment. A 2014 survey showed that 77% of women who have experienced cyber harassment have also faced at least one form of sexual or physical violence from an intimate partner. Women with high public profiles, such as politicians, journalists, and activists, are often targeted with relentless trolling and smear campaigns. The impacts of cyber attacks on women and girls can be severe and long-lasting. A 2017 Amnesty International poll revealed that approximately one-fourth of the 4,000 women surveyed in the United States and United Kingdom had experienced online abuse or harassment. Victims often suffer from anxiety, depression, and a loss of self-esteem, and may even withdraw from online activities altogether.

India has taken some steps to address the issue, such as increasing budget allocations for schemes like the Cyber Crime Prevention against Women and Children. However, much more needs to be done. Experts argue that a multi-pronged approach is needed, including robust gender-sensitive policies and redressal systems on social media platforms, stronger legislation, and efforts to address the root causes of misogyny and gender-based violence in society. India's battle with cyber risks and gendered violence is a complex and multifaceted challenge. As the country continues to embrace digital technologies, it must also prioritize the safety and well-being of women and girls online. This will require a concerted effort from the government, technology companies, civil society, and individuals to create a safer, more inclusive digital space for all.

Figure 1 : States which recorded The highest number of cyber crimes against women in 2019



Source: National Crime Records Bureau (NCRB) 2019

The ramifications of cyber violence extend far beyond the virtual realm, casting a pall over the physical and financial well-being of its victims. Threats of rape, induced suicides, and incessant cyberstalking exact a toll, inflicting mental anguish and draining financial resources. Legal fees, online protection services, lost wages, or even forced resignations from employment amplify the burden, exacerbating the already precarious situation for many women. In the landscape, existing legal provisions falter, failing to adequately address the direct and indirect financial repercussions faced by women. The persistent onslaught of online violence rooted in gender bias and targeting both women and children, strips away their constitutionally guaranteed rights. What should be pillars of empowerment—participation, expression, movement, privacy, and dignity—stand eroded, rendering them hollow promises for countless women across India. As the digital frontier evolves, so too must our strategies to combat its shadows. It's imperative to bridge the chasm between legislative intent and effective implementation, ensuring that no woman traverses the cyber landscape in fear, and that justice resonates equally for all, regardless of gender.

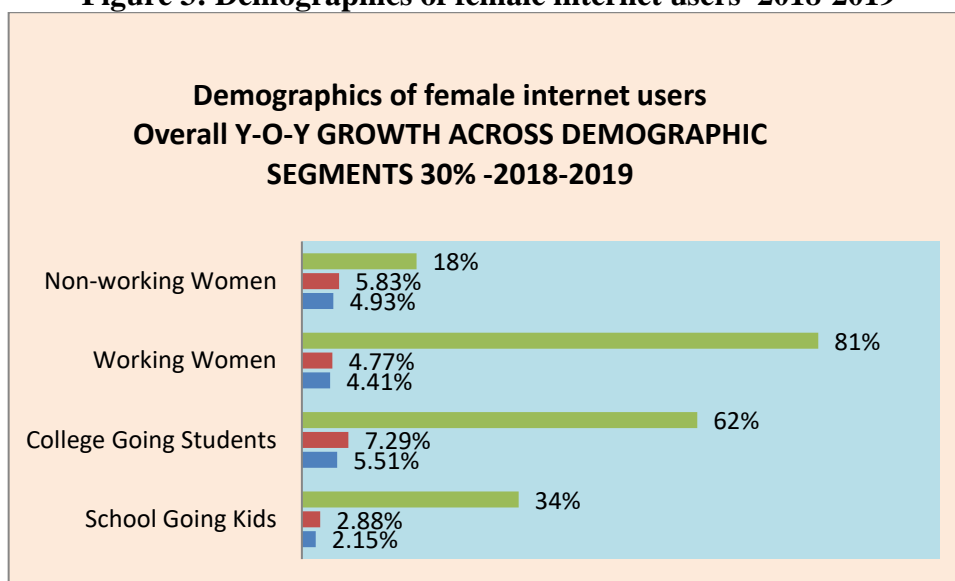
Digital Divides: Women's Cyber Participation and Socio-Economic Barriers

India's digital landscape is rapidly evolving, yet it remains marred by significant gender disparities that hinder women's full participation in the digital economy. The digital divide, particularly as it pertains to women, is a complex issue rooted in socio-economic barriers, cultural norms, and infrastructural inadequacies. Despite the government's ambitious goals for a trillion-dollar digital economy by 2025, the reality is that only one in three women in India has ever used the internet, compared to over half of men. This stark contrast highlights the urgent need to address the barriers that prevent women from accessing and utilizing digital technologies effectively. The socio-economic barriers contributing to the digital divide are multifaceted. One of the primary issues is the lack of access to digital devices and the internet, particularly in rural areas where infrastructure is often lacking. According to the National Family Health Survey (2018-2019), internet usage among women in rural India is alarmingly low, with only 25% having ever used the internet compared to 49% of men. This disparity is exacerbated by economic factors; many families prioritize spending on male members' digital access, leaving women with limited opportunities to engage with technology. The cost of mobile data remains a significant barrier, especially for low-income households, where the price of data can consume a substantial portion of their monthly income. Digital illiteracy is another critical factor that perpetuates the gender digital divide. Many women, particularly those in rural areas, lack the necessary skills to navigate digital platforms effectively. The National Family Health Survey indicates that a significant percentage of women have not completed secondary education, which correlates with lower levels of digital literacy. Without targeted digital education initiatives, women remain at a disadvantage in a world increasingly reliant on technology for education, employment, and social engagement. Programs aimed at improving digital literacy must be inclusive and accessible, ensuring that women are not left behind as the digital landscape continues to evolve.

Safety and security also play a crucial role in women's participation in the digital realm. Women often face heightened risks of online harassment, cyber bullying, and stalking, which can deter them from engaging fully with digital technologies. The fear of digital harm not only restricts their online activities but also reinforces existing societal norms that discourage women from asserting their presence in public digital spaces. To combat this, there must be a concerted effort to create safe online environments for women, alongside education on digital rights and responsible online behavior. The socio-cultural context in which women operate further complicates their access to digital technologies. In many communities, traditional gender roles dictate that women prioritize family responsibilities over personal ambitions, including digital engagement. This cultural perception often results in women being discouraged from using mobile phones or engaging with the internet, as it is viewed as a distraction from their primary duties. Addressing these cultural norms is essential for fostering an environment where women feel empowered to explore and utilize digital technologies for personal and professional growth. Despite these challenges, there are promising initiatives aimed at bridging the gender digital divide in India. Programs like the Pradhan

Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) aim to enhance digital literacy among rural populations, including women. However, these initiatives must be expanded and tailored specifically to address the unique barriers faced by women. For instance, training programs should focus on practical applications of technology that can enhance women's livelihoods, such as e-commerce, online education, and digital financial services. The involvement of women in the co-creation of digital solutions is vital for ensuring that their needs and preferences are adequately addressed. By actively engaging women in the development of digital platforms and services, stakeholders can create more inclusive technologies that facilitate women's participation in the digital economy. This approach not only empowers women but also drives innovation and economic growth by tapping into the vast potential of the female population. The economic implications of closing the gender digital divide are significant. Research indicates that increasing women's participation in the digital economy could contribute trillions of dollars to global GDP. In India, where female labor force participation is already low, enhancing access to digital technologies can provide women with new opportunities for employment and entrepreneurship. This is particularly crucial as the country strives to achieve its economic goals and ensure sustainable development. Addressing India's digital gender divide requires a multifaceted approach that tackles access, literacy, safety, and socio-cultural barriers. By prioritizing women's digital inclusion, India can unlock the potential of its vast female population, driving economic growth and fostering a more equitable society. As the nation continues its journey towards becoming a digital powerhouse, it is imperative that the voices and contributions of women are recognized and valued in the digital landscape. Only then can India truly harness the benefits of a connected world, ensuring that no one is left behind in the digital revolution.

Figure 3: Demographics of female internet users 2018-2019



Source: National Crime Records Bureau (NCRB) 2018-2019

Legal Frameworks and Policies

India's digital empowerment journey is marked by significant progress, yet it faces persistent gender disparities that hinder women's access to technology. The Information Technology Act of 2000 established the foundation for digital governance, with subsequent amendments in 2008 and 2013 addressing various cybercrimes, including online violence against women. The 2013 revision expanded protections to include audio-visual media and electronic content, thereby enhancing safeguards against digital offenses targeting women. Landmark legal cases have also shaped India's response to online gender-based violence, notably the Vishakha v. State of Rajasthan case in 1997, which established guidelines for preventing workplace sexual harassment, and the Shreya Singhal v. Union of India case in 2015, which struck down Section 66A of the IT Act, protecting online

freedom of expression. The Digital India Initiative, launched in 2015, aims to create a digitally empowered society. It includes initiatives like BharatNet, which provides rural broadband, and the National Policy on Electronics (2019), promoting gender-sensitive technology to encourage women's inclusion. Both central and state governments have introduced various ICT tools to empower citizens. For instance, apps like "Mitra" in Delhi and Pondicherry offer immediate assistance through emergency contacts. Despite these efforts, awareness and utilization of such technologies remain low, reflecting challenges faced by earlier initiatives like the Hawk Eye app in Hyderabad. Government initiatives such as Tamil Nadu's "Kavalan" app and the introduction of mandatory panic buttons in mobile phones demonstrate a commitment to enhancing women's safety through technology. Additionally, Karnataka's safety guidelines educate citizens on navigating digital threats. These combined legal frameworks, innovative initiatives, and safety measures aim to address women's safety in the digital age, fostering a safer and more inclusive digital ecosystem for all citizens. However, the digital gender divide remains a significant challenge. According to recent reports, only 15% of women in India have access to the internet, compared to 49% of men in rural areas. Cultural norms and socio-economic factors often restrict women's access to technology, as families may prioritize male members for educational and digital resources. Financial constraints further exacerbate this issue, making it difficult for many women to afford digital devices and services. To bridge this gap, it is essential to enhance digital infrastructure, particularly in rural areas, and implement gender-sensitive policies that cater to women's specific needs. By addressing these barriers, India can ensure that its digital transformation is inclusive and equitable, empowering women and enabling them to fully participate in the digital economy. Fostering gender parity in technology is not just a matter of equity; it is crucial for the overall progress and development of the nation.

Fostering Gender Parity: UN and World Bank's Cyber Equality Advocacy

The global push for gender parity has gained significant momentum, particularly in the fields of technology and cybersecurity, where the United Nations (UN) and the World Bank have taken a leading role. Their advocacy aims to bridge the gender gap in these critical areas, recognizing that a diverse workforce is essential for addressing the complexities of modern digital threats. Historically, the gender divide in technology was highlighted as early as 1995 during the Fourth World Conference on Women, where the UN identified significant disparities in women's access to and control over technology. This led to the Beijing Declaration, which called for increased participation of women in technology sectors and emphasized the need for gender-responsive policies. Despite these early efforts, the cybersecurity landscape remains starkly imbalanced, with women making up only 20% of the workforce in this field. This underrepresentation not only limits women's career opportunities but also poses risks to the security and resilience of economies worldwide. The World Bank has recognized the urgent need for a more inclusive cyberspace. Their initiatives focus on enhancing women's participation in cybersecurity through targeted training and capacity-building programs. For instance, the Cybersecurity Multi-Donor Trust Fund aims to provide resources for developing skills and knowledge necessary for women to thrive in this sector. By fostering an environment that supports women's advancement in technology, the World Bank seeks to mitigate the critical shortage of cybersecurity professionals and enhance overall digital security. In parallel, UN Women collaborates with various international financial institutions to influence strategies that promote gender equality. Their efforts include strengthening gender data and statistics to monitor progress towards Sustainable Development Goals, particularly Goal 5, which focuses on achieving gender equality. These partnerships are crucial for ensuring that gender considerations are integrated into broader economic and technological frameworks. The challenges faced by women in cyberspace extend beyond workforce participation. Female internet users are disproportionately affected by cybercrime and online harassment, highlighting the need for a safer digital environment. The UN and World Bank's advocacy work emphasizes creating a cyberspace that not only includes women but also protects them from digital threats, thereby fostering a more equitable and secure online experience for all users. The combined efforts of the UN and the World Bank represent a

significant stride towards fostering gender parity in cybersecurity. By addressing both the workforce gap and the safety concerns of women online, these organizations are paving the way for a more inclusive and resilient digital future. Their initiatives underscore the importance of integrating gender perspectives into technology and cybersecurity policies, ensuring that women are not only participants but also leaders in shaping the digital landscape.

Online Harassment Impact on Women: Prevalence & Consequences

In the vast landscape of cyberspace, human rights activists are drawing attention to the parallels between online violations against women and the harassment encountered on the streets. To combat online abuse, women employ strategies ranging from ignoring toxicity to actively moderating comments, blocking malicious users, and speaking out against perpetrators, reclaiming their digital autonomy. In India, the digital landscape has transformed into a battleground where women encounter widespread online harassment and abuse, including cyberstalking, revenge porn, and trolling. Recent high-profile cases have shed light on the prevalence and impact of online harassment faced by women across the country. In 2017, Swati Maliwal, Chairperson of the Delhi Commission for Women, became a target of relentless online abuse after spearheading a campaign against child sexual abuse. The #MeToo movement in 2018 empowered numerous women to share their stories of sexual harassment and abuse on social media, exposing the prevalence of misconduct within professional and entertainment spheres. Women face an array of online harassment, including blackmail, cyberstalking, and gender-based hate speech. In 2018, a woman in Mumbai fell victim to online blackmail after an intimate video was circulated without her consent. In 2019, a woman in Bangalore reported being cyber stalked by a former colleague, instilling fear and distress. Female journalists in Delhi experienced misogynistic abuse on social media platforms in 2019, highlighting the prevalence of gender-based hate speech online. These instances underscore the urgent need for robust legal protections and effective measures to combat online gender-based violence in India. Legislative reforms, digital literacy initiatives, and increased accountability from social media platforms are imperative to create safer digital environments where women can participate without fear of harassment or abuse. Civil society organizations, activists, and policymakers must collaborate to address the root causes of online harassment and ensure that women's rights and dignity are safeguarded in the digital age.

Conclusion

The digital gender divide in India presents a significant barrier to women's empowerment and societal progress. Despite the rapid growth of digital technologies, women continue to face substantial challenges in accessing and utilizing these resources. Various socio-cultural norms, economic disparities, and technological barriers contribute to this divide, particularly in rural areas where women are often twice as likely as men to lack internet access. Reports indicate that only 33% of women have ever used the internet compared to 57% of men, highlighting a stark inequality in digital engagement. Several factors perpetuate this gap. Economic disparities restrict women's access to Smartphones and the internet, with ownership rates significantly lower among women—only 25% of adult women own a Smartphone compared to 41% of men. Entrenched socio-cultural norms often dictate that women prioritize family responsibilities over personal development, limiting their opportunities for education and digital literacy. This lack of education exacerbates the digital divide, as many women are unable to effectively use available technologies. To combat these issues, the Indian government has initiated several policies and programs aimed at promoting digital inclusion among women. Initiatives like the Pradhan Mantri Gramin Digital Saksharta Abhiyan focus on enhancing digital literacy and access in rural communities, targeting millions of households to ensure women can benefit from the digital economy. The campaigns like "Stay Safe Online" aim to raise awareness about online safety, addressing the prevalence of harassment and abuse that women face in digital spaces. Despite these efforts, the persistence of online harassment remains a critical concern. Women often encounter significant risks when engaging in digital platforms, which can deter their participation and exacerbate feelings of isolation and vulnerability.

The intersection of digital access and safety is crucial; without addressing online harassment, efforts to bridge the digital divide may be undermined. Bridging the digital gender divide in India requires a multifaceted approach that addresses the underlying socio-economic and cultural barriers promoting safety and inclusivity in digital spaces. By investing in women's digital literacy, ensuring equitable access to technology, and fostering a safe online environment, India can unlock the potential of its female population. Empowering women through digital inclusion not only enhances their individual prospects but also contributes to broader economic growth and societal development, ultimately leading to a more equitable and prosperous future for all.

References

1. Antonio, A., & Tuffley, D. (2014). The gender digital divide in developing countries. *Future Internet*, 6(4), 673-687. <https://doi.org/10.3390/fi6040673>
2. Antunovic, D. (2019). "We wouldn't say it to their faces": Online harassment, women sports journalists, and feminism. *Feminist Media Studies*, 19(3), 428-442. <https://doi.org/10.1080/14680777.2018.1446454>
3. Bala, S., & Singhal, P. (2018). Gender digital divide in India: A case of inter-regional analysis of Uttar Pradesh. *Journal of Information, Communication and Ethics in Society*, 16(2), 173-192. <https://doi.org/10.1108/JICES-07-2017-0046>
4. Banerjee, M. (2018). Gender inequality and the digital divide in India. *Times of India*. Retrieved from <https://timesofindia.indiatimes.com/top-headlines/gender-inequality-and-the-digital-divide-in-india/articleshow/101409556.cms>
5. Bassan, L. (2019). Cyber violence as violence against women and girls: Taking a step forward for female inclusion in the digital era. Retrieved from <http://hdl.handle.net/10579/15315>
6. Boukemidja, N. B. (2018). Cyber crimes against women: Qualification and means. *European Journal of Social Sciences*, 1(3), 34-44. <https://doi.org/10.26417/ejss.v1i3.p34-44>
7. Broadhurst, R., & Grabosky, P. (2005). *Cyber-crime: The challenge in Asia* (Vol. 1). Hong Kong University Press.
8. Chetty, K., Aneja, U., Mishra, V., Gcora, N., & Josie, J. (2018). Bridging the digital divide in the G20: Skills for the new age. *Economics*, 12(1), 20180024. <https://doi.org/10.5018/economics-ejournal.ja.2018-24>
9. Cullen, R. (2003). The digital divide: A global and national call to action. *The Electronic Library*, 21(3), 247-257. <https://doi.org/10.1108/02640470310480506>
10. Devanathan, S., & Satija, A. (2018). The digital gender gap needs bridging, and fast. *Deccan Herald*. Retrieved from <https://www.deccanherald.com/opinion/the-digital-gender-gap-needs-bridging-and-fast-3108891>
11. Fatehkia, M., Kashyap, R., & Weber, I. (2018). Using Facebook ad data to track the global digital gender gap. *World Development*, 107, 189-209. <https://doi.org/10.1016/j.worlddev.2018.03.007>
12. Grown, C., Gupta, G. R., Kes, A., & Projet Objectifs du millénaire. (2005). *Taking action: Achieving gender equality and empowering women*. London: Earthscan. <https://doi.org/10.4324/9781849773560>
13. GSMA. (2018). *The Mobile Gender Gap Report 2018*. GSMA. Retrieved from <https://www.gsma.com/mobilegendergap/>
14. Gurung, L. (2018). The digital divide: An inquiry from feminist perspectives. *Dhualagiri: Journal of Sociology & Anthropology*, 12. <https://doi.org/10.3126/DSAJ.V12I0.22179>
15. Halder, D. (2011). Information Technology Act and cyber terrorism: A critical review. Available at SSRN. <http://dx.doi.org/10.2139/ssrn.1964261>
16. Halder, D., & Jaishankar, K. (Eds.). (2011). *Cyber crime and the victimization of women: Laws, rights and regulations*. IGI Global.
17. Oxfam India. (2017). *Digital Divide: India Inequality Report 2017*. Oxfam India. Retrieved from <https://www.oxfamindia.org/research-report/digital-divide-india-inequality-report-2017>

18. Robinson, L., Schulz, J., Blank, G., Ragnedda, M., Ono, H., Hogan, B., & Khilnani, A. (2019). Digital inequalities 2.0: Legacy inequalities in the information age. *First Monday*, 25(7). <https://doi.org/10.5210/fm.v25i7.10842>
19. Roessler, P. (2018). The mobile phone revolution and digital inequality: Scope, determinants and consequences. *Prosperity Commission Background Paper Series*, 15, 1-39.
20. Treuthart, M. (2017). Addressing the digital gender divide: Challenges and opportunities in India. *Journal of Gender Studies*, 26(3), 299-312.
21. UNFPA. (2018). The stage has been set for gender equity in Digital India. UNFPA India. Retrieved from <https://india.unfpa.org/en/news/stage-has-been-set-gender-equity-digital-india>
22. Vitores, A., & Gil-Juárez, A. (2016). The trouble with 'women in computing': A critical examination of the deployment of research on the gender gap in computer science. *Journal of Gender Studies*, 25(6), 666-680. <https://doi.org/10.1080/09589236.2016.1244565>.
23. World Bank. (2018). *Women, Business and the Law 2018: Getting to Equal*. World Bank Publications. Retrieved from <https://openknowledge.worldbank.org/handle/10986/29529>