T20 Policy Brief

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Task Force 05

INCLUSIVE DIGITAL TRANSFORMATION

Bridging the Digital Gender Gap as An SDG Accelerator

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Abstract

Nearly half of the world's population are women and achieving gender equality (SDG 5) is particularly impactful as an accelerator of the other SDGs, yet women continue to be held back in terms of decent work and equal enjoyment of political, economic, and social life (World Bank 2022). According to the OECD's Social Institutions and Gender Index (SIGI), gender inequality costs the global economy USD $6 trillion, and women's labor force participation is 47%, compared to 73% for men (ILO 2022). Women and girls, in all their diversity, are also disproportionately affected by climate change, and its impacts are amplified for women with intersectional inequalities, including indigenous and women of color, elderly women, those with disabilities, migrant women, and those living in rural, remote, conflict and disaster-prone areas (UN Women 2022). Digital technology is an exceptionally empowering force for women when it is inclusive and regulated for impact. Unfortunately, persistent gender gaps in digital access and literacy, STEM education, and biases perpetuate outdated gender stereotypes and the exclusion of women in the creation and use of new digital tools, including AI, and the underrepresentation of women in careers in the digital and technology sectors. Informed by an assessment of past G20 commitments on gender equality in the digital context and evaluation of progress on achieving those commitments, this policy brief recommends interventions to accelerate advancement. With the goal of achieving the economic, social, and environmental dimensions of sustainable development in the 2030 Agenda, this policy brief outlines effective, responsive, and sustainable solutions to fill the digital gender gap and leverage the potential of digital transformation to reduce inequalities in the world of work, embracing a whole-of-society approach and leaving no one behind.

Keywords: Digital gender gap; economic empowerment; SDGs; gender equality; G20 commitments

Diagnosis Of the Issue

The 2030 Agenda for Sustainable Development, comprising 17 SDGs, will not be achieved by 2030 without investing in innovative approaches (UN 2015). Achieving gender equality (SDG 5) can accelerate the delivery of sustainable economic growth, better educational outcomes, and stronger, more resilient societies across the 2030 Agenda (UNDP 2023). Realizing SDG 5 is estimated to cost $6.4 trillion annually but could then add $12 trillion to global GDP and boost some countries' economies by 35% (UNCTAD 2024; WEF 2024). Today, women's economic empowerment is intrinsically linked with women's digital empowerment. Closing the digital gender gap can offer complimentary pathways to achieving the SDGs and decent work for all, however, the persistent digital divide hinders this potential. The rapidly evolving digital landscape, constituting over 15% of global GDP and growing (WEF 2022), underscores the critical challenge of the digital gender divide.

Women experience disproportionately high poverty rates and affects from the food and energy crises (Pirzadeh et. al. 2023). Women share a significantly greater burden of unpaid caregiving, which is stressful and often binds them to their homes (Sinha et. al. 2023). Climate change (SDG 6, SDG 7, SDG 13) also has greater impacts on women and girls, especially those in low income or rural communities (Alvarez et. al. 2016) and could push 158.3 million more women and girls into poverty by 2050 (Azcona et. al. 2023). Bridging the digital divide is essential for eliminating poverty (SDG 1) as it allows women to participate in labor markets from home and offers women in underprivileged communities access to online education and e-commerce platforms for economic self-sufficiency. Digital inclusivity in agricultural practices can empower women in rural

areas, enhancing food security and nutrition (SDG 2) through better access to information, technologies, and networks.

Closing the digital gender gap aligns directly with SDG 4 and SDG 8 by fostering digital competencies and promoting women's employment. It supports achieving SDG 10 by reducing inequality in women's digital access and opportunities within and among countries. Globally, however, internet connectivity was 62% for men and 57% for women, and only 19% of women in Least Developed Countries (LDCs) used the internet, compared to 86% in advanced economies (ITU 2023). Women are significantly underrepresented in the tech sector, particularly in leadership where only 28% are women and half leave by age 35 (Forbes 2023). The IMF stresses the risks of emerging technologies, including AI, of widening digital gaps between those who are already skilled and empowered, and those who are not, including women and those from emerging and developing economies (Cazzaniga et. al. 2014). This emphasizes the leading role of the G20 countries in delivering comprehensive, responsive, and inclusive policies to halve the digital gender gap by 2030 (G20 India 2023) and accelerate progress toward achieving the 2030 Agenda.

Recommendations

Enhanced digital inclusivity ensures that women can participate fully in the labor market and entrepreneurship. Digital transformation with enhanced digital equality should encompass a comprehensive approach involving all levels of government and society, with a focus on ensuring that marginalized groups are included, and that essential safeguards are integrated from the outset.

To this end, we make the following recommendations to the G20 Leaders:

Invest In Digital Infrastructure

SDGs 1, 4, 5, 7, 8, 9, 10, 11, 13, 14

While the private sector can be a contributor for digital infrastructure development, public investment in Digital Public Infrastructure (DPI) is pivotal for achieving several SDGs in those sectors and geographic areas in which its social impact is strong, but its economic return is not high enough to attract private financing. DPI's enhancement of financial inclusion directly reduces poverty (SDG 1) and as demonstrated in India and Brazil, the expansion of digital banking, supported by digital infrastructure and access to critical digital tools, has dramatically reduced the number of unbanked adults, contributing to poverty alleviation (G20 Brazil 2024).

- **Structure** digital development to reduce inequalities (SDG 10), including through gender-disaggregated data collection, laws, and digital platforms.
- **Optimize** and fund programs for women's digital empowerment that safeguard women's access to digital devices and support flexible work to alleviate the burdens of

women's time poverty, mobility constraints, and caregiving responsibilities (SDG 5) (G20 Indonesia and OECD 2018; ADB 2015).

- **Ensure** that digital infrastructure empowers women through access to online markets, resources for skill development (SDG 4), and platforms for entrepreneurship.
- **Promote** decent work and economic growth (SDG 8) for women across sectors with job opportunities driving innovation and industry (SDG 9) through digital infrastructure.
- **Reserve** 30% in public procurement targeting women-owned digital enterprises.
- **Leverage** digital technologies to enhance women's access to affordable and renewable energy (SDG 7), improve smart city technologies (SDG 11), and invest in digital infrastructure that fosters ocean governance (SDG 14) and combats climate change (SDG 13) by metering carbon footprints automatically and enabling environmental accountability through data analysis[1].

Support Education on Digital Competencies, Reskilling, and Lifelong Learning

SDGs 1, 3, 4, 5, 6, 8, 10, 11, 12, 14, 15[1]

Inclusive and equitable quality education (SDG 4) is advanced by bridging the digital gender gap. Equipping women and girls with digital skills ensures continuous learning opportunities and keeps them in the workforce (SDG 5). As digital literacy increases, women and girls can engage in higher-paying jobs and entrepreneurship, thereby reducing poverty (SDG 1).

[1] DPI can optimize sustainable energy management for LLMs.

- **Mandate** primary and secondary school gender-transformative digital skills education (EQUALS 2024) (SDG 4) and fund digital reskilling to ensure that women's work is progressive, safe, and that it contributes to personal and economic development at all life stages (SDG 8).
- **Enact and enforce** legislation requiring transparent reporting on gender participation rates and leadership in STEM education, mentorship, industries, and public sector decision-making to reveal gaps, build data, and reduce inequalities (SDG 10).
- **Subsidize** programs fostering gender-transformative digital competencies that can enable access to and women's leadership in health education and telemedicine services (SDGs 3, 6), agriculture and food production (SDGs 2, 14,15), and more sustainable living (SDGs 11, 12, 13, 14, 15).

Democratize Digital and Eliminate Bias

SDGs 4, 5, 8, 10, 13, 14, 16

Women face unequal access to digital technologies, disparities in digital skills, and women's underrepresentation in digital leadership (Kuroda 2024). Addressing gender bias ensures that women can have truly equal access to the tools necessary for their digital empowerment and are critical steps in achieving the SDGs.

- **Protect** equal rights to digital devices, financial services, information, and networks for women and girls (SDGs 5, 10).

- **Subsidize and incentivize** gender-transformative training to eliminate gender bias in STEM fields, from the classroom to job markets and entrepreneurship for women (SDG 8).
- **Ensure** that digital educational platforms are free from bias and accessible to all women and girls who can benefit from educational content that is fair and representative of their experiences, leading to improved learning outcomes (SDG 4).
- **Promote** equitable access to digital tools for women to participate fully in environmental decision-making and creating innovative solutions to climate and ocean challenges (SDGs 13, 14).
- **Create and enforce** inclusive and non-discriminatory digital systems through peaceful, just, and strong institutions (SDG 16), supporting the rule of law and equitable access to justice and the right to engage with societal structures without discrimination.

Strengthen Cybersecurity and Protections in Digital Spaces

SDGs 3, 4, 5, 8, 10, 16, 17

Strengthening cybersecurity directly impacts gender equality (SDG 5), as women and girls suffer disproportionately from technology-facilitated gender-based violence (tfGBV). By protecting women and girls from online harassment and abuse, their active participation in digital life can be encouraged. Cybersecurity safeguards data, fosters trust, and ensures stable digital transactions, which are critical for economic activities and growth in the digital economy (SDG 8).

- **Safeguard and leverage** health data to support the integrity and availability of health services, including telemedicine and women's health (SDG 3).
- **Protect** educational data and mandate security for platforms for online learning to build trust in digital education systems and encourage participation in lifelong learning (SDG 4).
- **Ensure** that marginalized and vulnerable populations are not disproportionately affected by cyber threats and can safely access digital services and redress mechanisms (SDG 11).
- **Enforce** cybersecurity measures to combat escalating cybercrimes and ensure equitable and clear access to justice for women and girls across sectors (SDG 16).
- **Enact** comprehensive and responsive AI regulations, leveraging partnerships for human security-based protections for women and girls against bias and exclusions (SDG 17).

Scenario Of Outcomes

G20 implementation of these recommendations to transform digital futures could bring about a seismic shift toward the achievement of Sustainable Development Goals (SDGs), leveraging the exponential potential of digital infrastructure and inclusion of women. The investment in digital infrastructure would be a catalyst for poverty eradication (SDG 1), driven by expansive digital financial services reaching the most impoverished, offering over 100 million women and girls a path out of poverty and the creation of almost 300 million jobs through investments in care services, directly impacting decent work and economic growth (SDG 8) (UN 2024). Enhanced digital access and literacy for women would significantly reduce economic disparities, empowering them to contribute to and benefit from their economies, fostering resilient, balanced, and thriving societies (SDG 11). As demonstrated by Global System for Mobile Association's (GSMA) efforts in areas of India and Africa, when mobile operators commit to reducing the digital gender gap, they see tangible results in financial and digital inclusion for women (Sibthorpe 2024). Following this example, the G20's implementation of international Digital Public Infrastructure (DPI) principles could extend such successes globally, reducing gender gaps in employment and potentially boosting GDP per capita by 20% across all regions, reflecting an immense leap toward gender equality (SDG 5) and reduced inequalities (SDG 10). Support for digital competencies, upskilling, reskilling, and lifelong learning would amplify these outcomes. It would not only close educational gaps (SDG 4) but also equip individuals for a modern job market, allowing for the pursuit of innovative ventures and sustainable industries (SDG 9). The democratization of digital technology and the elimination of biases would ensure an equitable digital landscape, bringing the power of technology to those who have historically been underserved, aligning with SDG 16's

vision for peace, justice, and strong institutions. By ensuring women's equal access to digital tools, G20 leaders would be pivotal in enabling women's full participation in climate action (SDG 13), ocean governance (SDG 14), and decision-making. Strengthening cybersecurity would build trust in digital services, protecting individuals' health data (SDG 3), and securing educational platforms for learners worldwide (SDG 4). With fortified cybersecurity, digital transactions would underpin sustainable economic activities (SDG 8), and peace and justice (SDG 16) would be bolstered through resilient digital institutions.

Finally, these efforts work best for achieving the 2030 Agenda when strategically fortified by partnerships (SDG 17), especially those centered on equality, economic growth, and institutional integrity. Strong partnerships can mobilize resources, share knowledge, and drive initiatives that promote digital inclusivity for women and girls (SDG 5). By collaborating across sectors, partners can develop programs that encourage women's participation in the digital economy and support women-led tech enterprises. Partnerships between governments, private sector, civil society, and educational institutions can foster innovation and entrepreneurship, create jobs in the digital sector, and ensure that workers have the skills necessary for the jobs of the future (SDG 8). The G20's emphasis on fostering partnerships would embody SDG 17, leveraging the collective strength of diverse global actors such as the United Nations, the International Monetary Fund, and the World Bank (G20 Brazil 2024). These alliances would not only be a testament to global cooperation but would also ensure that the technological advancements are shared and capacity-building is mutual, leading to inclusive and sustainable economic growth, innovation, and resilient infrastructures. In this envisioned future, the G20's collective action would have enabled a more connected, equitable, and resilient world where the benefits of digital advancements are not a privilege but a

universal resource, contributing to gender equality and an empowered, informed, and inclusive global society.

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