Recommendations for action: bridging the digital gender gap
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Abstract

This document provides an overview of the importance of advancing digital inclusion for women. It describes some of the challenges and outlines recommendations for coordinated and effective action by the G20 to support women’s empowerment and equal participation in the digital future.

CHALLENGE

Digital technologies have become a powerful force for social and economic development, delivering substantial benefits for both, individuals and society. However, there remains a significant digital gender gap which must be addressed to ensure that women are not being left behind.

Digital technologies empower women, providing them with access to information, services and life enhancing opportunities. Ensuring women are digitally included brings significant benefits not only to them, but to their communities, economies and development more generally.

However, women’s participation in the information society is constrained by two main factors: too many women face barriers to access and use digital technologies; and, underpinning this, too few women are involved in the design, development, production and governance of digital technologies.

Latest estimates from the ITU (2017) suggest that women globally are 12% less likely to use the Internet. A recent GSMA study shows that in low- and middle-income countries, women are 26% less likely to use mobile internet than men, the primary means of accessing the internet in many parts of the world.

Women are also often under-represented at senior levels in high-technology industries - including the digital sector- and there is a substantial gender gap, in both developed and developing countries, in skills, jobs and careers involving science, technology, engineering and mathematics (STEM subjects). This gender bias begins in primary school and the pattern continues into higher education choices and the workplace.
This digital gender gap is unlikely to close on its own. Its root causes are driven by a complex set of social, economic and cultural barriers which can only be overcome with targeted intervention by all stakeholders. G20 Member States already play a leading role in digital transformation and digital development, supporting the SDGs. Concerted action and cooperation amongst them and in partnership with other stakeholders can address the digital gender gap and ensure that women are not being left behind.

**PROPOSAL**

The importance of gender equality in the digital society and the urgent need for action to close the digital gender gap is widely recognised internationally. Against this background, the Broadband Commission Working Group on the Digital Gender Divide has developed a framework with four specific action areas for closing the digital gender gap and identified practical actions that stakeholders can take. The following policy brief follows this framework and builds on the call from the Women20 Germany 2017 Communiqué to bridge the digital gender divide. It identifies key areas where a gender perspective is required in analysis of work by the countries from G20 to ensure digital inclusion and sets out practical recommendations for addressing the digital gender divide and improve women and girls’ access to STEM.

**TO ADDRESS THE DIGITAL GENDER GAP, THERE IS A NEED FOR:**

- Gender-disaggregated data on digital inclusion, including internet access and use and participation in the digital sector. Gender-disaggregated data is currently limited, despite such data being critical to understanding and measuring the digital gender gap and informing policy and business choices that can help bridge this gap.

- The integration of a gender perspective into relevant policies and strategies. Strategies, policies, plans and budgets that explicitly address women’s needs, circumstances, capabilities and preferences are essential if governments, businesses and other stakeholders are to tackle the digital gender gap effectively.

- A focus on addressing the barriers to women’s access and use of the internet and digital services, as well as their participation in the digital sector. We need to address issues of gender equality and social norms, as well as focusing on accessibility, affordability, safety, usability and training of digital skills, and the availability of relevant content, applications and services.
Coordinated action by many different stakeholders working together to address the digital gender gap. The barriers preventing women from accessing and using the internet are complex, diverse and inter-related and they cannot be addressed in isolation of each other. They require action by and cooperation between all stakeholders.

More specific recommendations for each of these areas are outlined below.

**Understand the context: gender-disaggregated data**

Gender-disaggregated data is currently limited, despite such data being critical to understanding and measuring the digital gender gap and informing policy and business choices that can help bridge this gap. Having more detailed and consistent evidence concerning the digital gender gap will facilitate the development of focused policy and strategies to address women's needs more effectively.

**RECOMMENDATIONS FOR GOVERNMENTS INCLUDE:**

1. Collect, analyse, and track data disaggregated by gender, age and location, on access and usage of technology and on the presence of women in STEM related courses, careers and in leadership positions in the digital sector.

To do this, governments should:
+ Ensure that indicators to measure access and use of technologies from a gender perspective are integrated into existing official data collection requirements.
+ National data to measure digital inclusion including internet access and use from a gender perspective is collected in accordance with international guidelines, is openly accessible and undertaken in a manner that enables regular comparisons over time and between countries.
+ Assess baseline indicators for all strategies, policies and plans related to digital inclusion, and put in place measures to ensure that they are providing relevant and timely gender disaggregated data which can be used for the development, implementation and measurement of future policies, strategies and plans.

Measure the representation of women in vocational schools and universities related with STEM careers.
2. Research women and girls’ access and use of the internet and participation in the digital sector.
Governments should support robust, reliable, accurate and up-to-date research concerning women and girls’ access and use of technology and participation in the digital sector. This should focus on better understanding their needs, circumstances and preferences in different local contexts and the factors limiting uptake (including cultural and social norms). It should also ensure that men are included in research so that findings regarding women can be compared and contextualized.

3. Publish and share data and research
The rapid pace of technological development that characterizes ICTs means that flexible and responsive policies and strategies are required and should be driven by accurate, up-to-date information. Government should publish gender-disaggregated data in a safe and secure manner for data and privacy protection.

Integrate a gender perspective into national strategies, policies, plans and budgets
Strategies, policies, plans and budgets that explicitly address women’s needs, circumstances, capabilities and preferences are essential if governments, businesses and other stakeholders are to tackle the digital gender gap effectively. This includes ensuring that:

+ ICT/broadband strategies and policies have a gender dimension.
+ other related policies and strategies (e.g. gender or education-related policies) support the adoption and use of digital technologies as enabling tools and the participation of women in the digital sector.

RECOMMENDATIONS FOR GOVERNMENTS INCLUDE:

1. Establish gender equality targets
Specific recommendations include making sure gender equality targets are included across all ICT/broadband and related strategies, policies, plans and budgets, to ensure they support women and girls’ access and use of the internet services. In addition, they should foster women’s active participation in the digital sector, that is, in the design, development, production and governance of digital technologies. It is vital to establish clear accountability structures to ensure the successful delivery of targets.
2. Assess strategies, policies, plans and budgets for gender equality considerations
Specifically, governments should use gender analysis tools to assess strategies, policies and implementation plans to ensure that gender equality considerations are sufficiently reflected and prioritized. There is also a need to establish processes to ensure gender analysis is included in the future development of all strategies, policies, plans and budgets.

3. Consult and involve women and local communities — including gender equality advocates and experts — from the outset in the development of strategies, policies and budgets to ensure women's needs are taken into account.

Address the barriers related to accessibility, affordability, safety, digital skills training and content relevance

The root causes of digital gender gap lie in a complex set of interrelated social, economic and cultural barriers, including lack of available infrastructure, the cost of the internet, devices and usage, the design and usability of devices, lack of digital skills, concerns related to safety and security, lack of awareness and relevant content, and cultural factors that impact women’s ability to access and use digital technologies and participate fully in the digital sector. Existing gender disparities and social norms that influence women’s roles, status, empowerment, and access to education and income – among other things – have significant effects on gender digital divides and the barriers that women face.

These barriers should not be viewed and addressed in isolation. A holistic approach is required if the gender gap is to be effectively addressed. Strategies to address these barriers should seek to confront the structural inequalities between men and women, including cultural and social norms. These must take into account the needs, circumstances, and preferences of women in different local contexts. The following section gives an overview of the barriers mentioned above and outlines specific recommendations that government can take to address each of them.

Affordability:
Connectivity and device costs have a significant effect on women’s ability to benefit from the internet, as women often have less financial independence, lower incomes, and lower access to external sources of finance than their male peers. As a result, women in many countries are more likely to have access to poorer quality devices and to obtain these later than their male peers, enabling lesser access to the internet.
RECOMMENDATIONS FOR GOVERNMENTS INCLUDE:

1. Improve understanding of affordability issues: Develop strategies for achieving affordable internet access for women and girls that are based on an understanding of the ways in which population segments are impacted by affordability issues.

2. Ensure appropriate policy and regulation to reduce cost of devices and services: Implement policy and regulatory measures to help ensure that providers can offer data and devices for accessing the internet at prices that are affordable to women and girls, particularly for those with lower incomes. This can include reduction or removal of ICT/mobile-specific taxes that exacerbate the cost barrier, releasing affordable spectrum, ensuring an open and transparent regulatory environment, and the consideration of targeted and subsidized programs for women to get access to the internet (e.g.: subsidizing handsets).

Accessibility:
Women may find digital services and the internet particularly difficult to access in poor and remote areas where it may be predominantly available outside the home or in locations which are unsafe or inaccessible. For example, places where social or cultural norms and safety concerns may constrain women’s freedom of movement. Women also face other accessibility challenges including difficulties obtaining identity documents required to open accounts. While models of public access can offer simple, yet effective, means for promoting broader access, a number of factors can limit the success of such facilities; these include funding difficulties, operating hours, the location and safety concerns.

RECOMMENDATIONS FOR GOVERNMENTS INCLUDE:

1. Ensure policies and regulations to support equal and non-discriminatory access to digital technologies, including to sufficient and functional wireless networks, to all society, in rural and urban areas, taking into consideration the different needs and possibilities of the population by age, gender, and economic status. For example, by promoting voluntary infrastructure sharing, releasing spectrum at affordable cost and considering use of public finances to incentivise the rollout of, or access to, infrastructure in under-served rural areas.

2. Support and invest in the provision of safe and accessible public access facilities, where women and girls can use, and learn to use, the internet, and also access digital resources.
Threats that prevent access and use

While the internet can give women access to empowering information, access can also provoke an online or offline reaction that increases women’s vulnerability, especially if women are considered to transgress gender norms. Women can face concerns of physical violence in respect of devices they own or borrow, including vulnerability to theft.

They may struggle to access public access facilities due to safety concerns or because facilities are in some way considered unsuitable for women. Social or cultural norms and safety concerns may further constrain women’s freedom of movement or limit their online access. Once online, women can face fears of intimidation, harassment, violence, surveillance, and/or illegal data retention, among other things. In many countries, women have experienced online abuse – from petty harassment and trolling to stalking and sexual intimidation.

While women can use digital services in ways that protect and enhance their personal security, more needs to be done to address this barrier to women’s inclusion. Male-dominated study environments and workplaces may also be unattractive to many women because of risk of harassment and inappropriate behaviour.

RECOMMENDATIONS FOR GOVERNMENTS INCLUDE:

1. Conduct research on the threats, as well as the cultural and social norms, that prevent women and girls in different contexts from accessing and using the internet and participating in the digital sector. In order to prevent and address threats that women face, they have to be better understood.

2. Increase awareness of the threats and how they can be addressed or reduced. This may be done through awareness campaigns for the general public, digital literacy programs and formal education programs/curriculum. Both men and women should be targeted in education and awareness activities.

3. Strengthen protection measures and reporting procedures to protect women and girls against abuse and harassment. This includes introducing legal and policy frameworks that recognize and address ICT-mediated abuse, harassment and fraud, and through measures that promote access to justice. These should include making it easy and safe for women and girls to report abuse.
4. Developing safety applications and services. This can include investing in or encouraging the development of applications and services that make it safer for women and girls to access and use digital services and the internet.

**Digital skills and confidence**

In many countries, a higher proportion of women than men are illiterate or have experienced lower levels of education.\(^8\) Research studies suggest that women with such disadvantages often lack the digital skills or confidence needed to use the internet, which leads them to lose access or restrict their use to a limited number of services and applications.\(^9\) The gender gap in skills also manifests in STEM education, particularly in higher levels. Women need the skills and confidence to engage with digital technologies at every level, from basic usage to professional work and governance.

**RECOMMENDATIONS FOR GOVERNMENT INCLUDE:**

1. **Invest in education and capacity building initiatives that increase women and girls’ digital skills and confidence**, including women and girls across all levels of education, income and familiarity with ICT and the internet. This encompasses the following:

   + Ensuring existing digital literacy and education initiatives consider the needs and interests of women and girls in order to encourage strategic and meaningful use of the internet which maximises its value to women and girls and minimises risks.

   + Teachers, educators and other local leaders must be trained to use digital tools and understand the benefits of delivering digital skills training to women and girls in their communities.

   + Integrate a gender perspective in the training of teachers in STEAM areas at all levels of education to reduce gender biases which discourage women and girls’ from studying STEM-related disciplines. Also innovate ways of teaching these subject should be promoted, enhancing the motivation and retention of women.

   + Ensure that virtual and physical classrooms are technically well-equipped.

   + Encourage women and girls to access to STEM career.
2. Take steps to make online government content and services more accessible to women with limited literacy, language and ICT-related skills and confidence, and ensure that women with lower literacy levels are included in the pilots/models and user testing of these services.

3. Support and promote female role models in the digital sector, including in the design, development and production of digital technologies and leadership positions in the sector.

**Relevant content, applications and services**

Surveys of internet users and non-users in developing countries show that many women are unsure or unaware of the potential of communication services to benefit their lives and are often insufficiently aware of the range of potentially useful content and applications available. Some women who are not connected to the internet feel that they will gain little value from internet access or content, while others cite the lack of relevant content as a reason for not making more extensive use of the internet. In addition, although the development of meaningful content and services is important for stimulating demand for ICT services by women, few organizations focus on producing content and services which are explicitly focused on women. Many products have also been developed and designed without sufficient attention being paid to women's circumstances, needs, capabilities, and preferences. The design of digital technologies impacts on women's ability to use them. Unfortunately, women have often not been effectively considered or involved in the design, testing and implementation of applications and services.

**RECOMMENDATIONS FOR GOVERNMENT INCLUDE:**

1. **Build awareness of the potential value of digital services and their benefits to women's lives.** For example, by highlighting the life-changing benefits of health information, job searching opportunities, and mobile financial services.

2. **Develop relevant and meaningful content and services to stimulate demand and use.** In particular by encouraging the development of an ecosystem of quality, non-stereotypical services, applications and content relevant to women and girls.

3. **Involve women from diverse backgrounds in the designing, testing and iteration of government content, applications and services,** including those in low-income groups and those who do not currently make use of mobile services.
4. Take measures to increase the number of women and girls who study STEM subjects and work in the digital sector to help ensure that women participate in the design, development and production of digital technologies and in leadership positions in the digital sector. These can include measuring and tracking progress, creating awareness and outreach programs to equip young girls and women with the skills and inspiration needed to pursue a career in STEM and relevant qualifications, and ensuring that legal and policy frameworks are in place to prevent discrimination.

Coordinated action

Addressing the gender gap really does require action by many different stakeholders working together. Cooperation between stakeholders will be crucial in enabling the development and delivery of policies that are targeted effectively towards women’s needs.

It requires action by and cooperation between:

1. **Different Ministries and Departments within governments**, including the ICT departments, gender divisions and other relevant departments such as the education department.

2. **Government and other stakeholders** such as the private sector, non-governmental organisations, research institutions, and the women and men directly concerned.

Relevant existing forums should be used to increase awareness, prioritization and action on this issue as well as to share best practice, facilitate cooperation and explore how activities in this area can be scaled up. They could also work with the EQUALS global partnership network which brings together organizations working jointly to bridge the digital gender divide.

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REFERENCES


3. The ‘Information Society’ usually refers to a society in which the creation, distribution, use, integration and manipulation of information is a significant economic, political, and cultural activity. In 2003 in its Declaration of Principles, the World Summit on the Information Society (WSIS) expressed the ‘common desire and commitment’ to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life. (WSIS 2003). Declaration of Principles, Building the Information Society: a global challenge in the new Millennium. Available at: https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx.


