



DIGITAL EMPOWERMENT OF GIRLS

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INTRODUCTION

Technology connects us. It brings together ideas and minds across borders and cultures; it allows us to create movements spanning the globe; it can act as an amplifier to the voices of girls. Plan International strives to build a world in which girls have the tools and the power to shape their own futures and influence decision making and policy processes at local and global levels. Technology is not a prerequisite for being a change agent or a leader, but it can be a powerful tool for girls' voices to become even louder and reach even further. Similarly, social media can be used as a vehicle to spread inspirational stories of female leaders and connect activists and change makers across the world.

Digital technologies have a strong potential to empower girls and women economically and socially. Girls feel safer and more connected when they have a mobile phone, and they use mobile phones to save time and money and access education opportunities.¹ Yet girls and women are, on average, less likely than men to own a mobile phone, use mobile data, social media apps or SMS.² There is also a stark gender disparity in access to the Internet, which limits the ability of girls and women to benefit from many innovations of the digital economy, such as digital payments and mobile money.³ The gender disparity in access to technology is compounded by a significant gender divide in terms of career and academic aspirations related to Information and Communication Technologies (ICTs).

This briefing paper argues that promoting girls' digital literacy and closing the digital gender gap will play an important role in achieving gender equality and promoting the rights of girls and women worldwide. Indeed, bridging the digital gender divide is essential in ensuring girls and women are not left behind in an increasingly digital future. The paper also argues that actions promoting girls' digital empowerment should be guided by the principle of engaging girls and women as active, capable partners in our work, not merely passive recipients or targets. Rather than making assumptions about what girls want and need from technology, it is important to work together with girls to strengthen and develop their use and creation of digital tools.

The first section of the paper provides key facts and figures on the prevailing gender digital divide, while the second section reviews the relevant international normative framework. The section following considers some past and current projects and initiatives – from Plan International and our peer organisations – that have used technology to promote the rights and unique needs of girls and women. The challenges and barriers to bridging the digital gender divide are considered in the fourth section, before the final section provides recommendations on the way forward.

Key recommendations

1. Educate equally

- Governments should mainstream ICT and digital technology education in national curricula, and actively support and promote girls' participation in these subjects, to ensure girls have equal access to opportunities in the workplaces of the future.
- Governments and the private sector should promote role models and mentors in the ICT sector for girls.

¹ GSMA Connected Women, *The Mobile Gender Gap Report 2018* (London: GSMA, 2018).

² GSMA Connected Women, *The Mobile Gender Gap Report 2018* (London: GSMA, 2018).

³ International Telecommunication Union, "ICT Facts and Figures 2017" (International Telecommunication Union, 2016). Accessed at: <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf>

2. Close the access and usage gap

- Governments and education institutions should create classes and sessions specifically targeting girls in locations accessible to them, teaching digital literacy and ensuring they know how to get the most out of their devices.
- Telecommunications companies and internet providers should develop creative strategies to bring down the cost of airtime, mobile data and broadband internet for girls and women.

3. Make digital environments safe for girls

- Civil society, governments and schools should provide workshops, teacher training, cyber security classes and similar initiatives to provide girls and boys with the knowledge and skills they need to stay safe online.
- Governments, in collaboration with civil society, should develop and adopt a new General Comment on Children and the Digital Environment to provide urgently-needed guidance on the interpretation of the UN Convention on the Rights of the Child in the digital era.

4. Empower girls and women to create technology and digital content

- Recognise and support the role of women and girls not just as users of technology, but as developers and creators of it as well.
- Celebrate the contributions of girls and women to technology, and encourage mentorship and community-building among women in technology.

THE GENDER DIGITAL DIVIDE

Women and girls continue to face gender-based barriers that prevent them from accessing and utilising technology and digital tools at the same level as boys and men. Not only does the digital gender gap still exist, in some instances it has even grown wider in recent years. This gap holds back women and girls, and also negatively impacts countries' potential for economic growth and development. A 2015 study by the McKinsey Global Institute found that US\$12 trillion could be added to the global economy by 2025 through advancing women's equality.⁴ The report listed technology as one of the six key gender gaps that need to be bridged in order for women to be able to reach their full potential.

The gender digital divide prevails across the globe, although the largest gaps are in Sub-Saharan Africa, Arab States and South Asia.⁵ The gap is also multifaceted: there are divides in access to the Internet between the genders, but also in access to mobile phones, access to and ability to use mobile internet, ability to create technology, as well as basic digital literacy. Significantly, however, there is a dearth of data available specifically on girls' access to the internet and mobile tools.

The impacts of digital exclusion are wide-ranging. Digital illiteracy and barriers in access to mobile phones and the internet limits access to information and learning opportunities, and increase vulnerabilities. Lack of skills in using and creating technology affects employability and future career prospects. At the societal level, a vicious circle presents itself: the dearth of women in the ICT sector repeats itself as girls and young women are unable to see their perspective, priorities and needs reflected and accommodated in the sector, and therefore shy away from pursuing careers in ICT. Furthermore, devices and content produced predominantly by men often do not reflect the needs of women and girls, and may even contribute to the reproduction of gender biases and inequality. The latter is a particular concern: as machine learning and artificial intelligence (AI) become ubiquitous, there is a risk of them reproducing existing power relations if AI systems are programmed to learn from the status quo. For this reason, it is also important to ensure that we don't only empower girls and women to use technology and digital content, but to design and create it as well.

Increasing girls' and women's presence and visibility in the ICT sector has economic and social dividends, both at the individual and societal levels. There is a clear business case for the digital inclusion of girls and women: the McKinsey Global Institute report referenced above, as well as separate studies by Intel Corporation and the GSMA, have found that the economic dividend of closing the gender digital divide could run into hundreds of billions of dollars.⁶

But the argument for the digital empowerment and inclusion of girls and women should not rest on economics alone. There is an even more important reason to promote girls' access to and use of technology: the girls themselves. The primary reason for wanting to invest in girls' digital inclusion – and in gender equality in general – should not be only the external benefits this brings to societies at large, but the fact that access to technology and digital agency is a right in itself, as well as a question of gender equality. As a 2016 report of the UN Secretary General noted, closing the gender gap in digital fluency has the potential to “support educational attainment along with advancement in the workplace for both women and men.”⁷ It is a right for women and girls just as it is a right for men and boys. Holding back girls and women in this area will hold them back in almost every other aspect of their lives. Yet without active efforts

⁴ Jonathan Woetzel et al., *The Power of Parity: How advancing women's equality can add \$12 trillion to global growth* (McKinsey Global Institute: September 2015). Accessed at: <http://www.mckinsey.com/global-themes/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth>

⁵ GSMA Connected Women, *The Mobile Gender Gap Report 2018* (London: GSMA, 2018); International Telecommunication Union, “ICT Facts and Figures 2017” (International Telecommunication Union, 2016). Accessed at: <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf>

⁶ Intel Corporation, *Women and the Web: Bridging the Internet gap and creating new global opportunities in low and middle-income countries* (California: Intel Corporation, 2013).

⁷ UN Commission on the Status of Women 61st Session, *Report of the Secretary General – Women's economic empowerment in the changing world of world* (30 December 2016), E/CN.6/2017/3, 1.

by governments, civil society and the private sector to support girls' access to technology and digital tools, and their participation in ICT subjects, there is a real risk that the digital economies and connected workplaces of the future will replicate existing gender disparities.

The digital gender divide: key facts and figures

- More men than women have access to and use the internet in all regions of the world. And the internet gender gap is growing, not shrinking: it was 11.6% in 2017, up from 11% in 2013.⁸ The gap remains largest in least developed countries, at 31%.
- Women in low and middle-income countries are on average 10% less likely to own a mobile phone than men, translating to over 184 million fewer women than men owning mobile phones worldwide. The gender gap in mobile phone ownership is most stark in South Asia, where women are 26% less likely than men to own a mobile phone.⁹
- In addition to the gender gap in mobile phone ownership, there is a gender gap in mobile phone usage. A 2018 GSMA study showed that women are less likely to use mobile data, social media apps or even SMS services compared to male users.¹⁰
- Girls are five times less likely than boys to consider a career related to technology, according to figures cited by the International Telecommunications Union.¹¹ In a 2016 survey conducted by Microsoft and Girlguiding, 51% of girls in the UK agreed with the statement that science, technology, engineering and mathematics (STEM) subjects “have the image of being more for boys” than girls.¹²
- A 2016 study by Deloitte estimated that women held less than 25% of jobs in information technology in developed countries. In developing countries men are 2.7 times more likely than women to work in the sector and 7.6 times more likely to be in an ICT occupation.¹³
- Women account for only 6% of global app developers¹⁴ and 11% of executive positions in Silicon Valley companies.¹⁵
- A large percentage of jobs worldwide already have a digital component, according to the ITU, and over coming years most jobs will require sophisticated digital and ICT skills.¹⁶

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⁸ International Telecommunication Union, “ICT Facts and Figures 2017” (International Telecommunication Union, 2016). Accessed at: <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf>

⁹ GSMA Connected Women, *The Mobile Gender Gap Report 2018* (London: GSMA, 2018).

¹⁰ Ibid.

¹¹ UN News Centre, “UN launches web portal to help young women pursue technology careers” (24 January 2012). Accessed at: <http://www.un.org/apps/news/story.asp?NewsID=41028#.WNU5LRLyu9Y>

¹² Girlguiding, *What girls say about... digital technology* (London: Girlguiding, 2016), 2.

¹³ World Bank Group, *World Development Report 2016: Digital Dividends* (Washington, DC: World Bank, 2016), 106.

¹⁴ InMobi, *State of Mobile App Developers 2016* (InMobi, 2016). Accessed at:

<https://www.inmobi.com/insights/download/whitepapers/state-of-mobile-app-developers-2016/>

¹⁵ Shulamite Shen White and David A. Bell, “Gender Diversity in Silicon Valley A Comparison of Silicon Valley Public Companies and Large Public Companies” (Fenwick & West LLP, 2014), 18.


¹⁶ H. I. Touré, “Connecting Women and Youth for Digital Development” (September 2012), speech delivered at Women Leaders Forum, USA. Accessed at: <http://www.itu.int/en/osg/speeches/Pages/2012-09-24-2.aspx>

The opportunity cost

- Girls feel safer and more connected when they have a mobile phone, and they use mobile phones to save time and money and access education opportunities.¹⁷
- A 2016 study found that if the pace at which girls and women in developing countries become frequent users of digital technologies is doubled, workplaces could reach gender equality up to 40 years earlier than current estimates predict.¹⁸
- In economic terms, ensuring all women own phones, and ensuring women who own phones in low and middle-income countries increase their usage of phones, could unlock an estimated US\$170 billion market opportunity for the mobile industry over five years.¹⁹
- If an additional 600 million women and girls were brought online in developing countries, the economic dividend would be between US\$13 billion and US\$18 billion per year.²⁰

BACKGROUND

In recent years the spread of the internet and mobile telephones in low-income countries has created new opportunities for girls and young women. However, it has also increased risk in terms of online bullying, harassment and sexual exploitation.




Bringing 600 million additional women and girls online could boost global GDP by \$13-18 billion


Technology and social media have been used to improve awareness of harassment of adolescent girls

The **HarassMap** project from Egypt aims to encourage people to speak out when they witness sexual harassment happening


ACCESS



A woman in a low- to middle- income country is 21% less likely to own a mobile phone than a man



In sub-Saharan Africa there are almost twice as many men as women on the internet



SMS messaging is an effective way of spreading information. Between 2009 and 2012 a mobile-based literacy programme in Pakistan supported 4,000 women and girls to build their literacy through SMS messages

plan-international.org/UnfinishedBusiness

¹⁷ GSMA Connected Women, *Bridging the gender gap: Mobile access and usage in low and middle-income countries* (London: GSMA, 2015).

¹⁸ Julie Sweet, "Access to Digital Technology Accelerates Global Gender Equality", *Harvard Business Review* (May 2016).

¹⁹ GSMA Connected Women, *Bridging the Gender Gap* (2015).

²⁰ Intel Corporation, *Women and the Web: Bridging the Internet gap and creating new global opportunities in low and middle-income countries* (California: Intel Corporation, 2013).

DIGITAL EMPOWERMENT: THE INTERNATIONAL NORMATIVE FRAMEWORK

Recent Developments

In September 2015, the 2030 Agenda for Sustainable Development was unanimously adopted by 193 Member States at the United Nations Sustainable Development Summit. The 17 new Global Goals and their 169 targets form a blueprint for action in the years to 2030. The role of technology is emphasised throughout the goals, from its importance for ending poverty (Goal 1.4), education (Goal 4.b), access to sustainable and modern energy (Goal 7.a and 7.b), economic growth and decent employment (Goal 8), to name a few. At Goal 5 – Achieve gender equality and empower girls and women – target 5.b calls for “enhancing the use of enabling technology, in particular information and communications technology, to promote the empowerment of women”.²¹

The rationale for these references to technology in the Global Goals is outlined at paragraph 15 of the 2030 Agenda for Sustainable Agenda 2030 document:

“Access to education has greatly increased for both boys and girls. The spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy.”

In the two years since the adoption of the 2030 Agenda, the potential for technology to accelerate gender equality and promote the empowerment of women and girls has been emphasised at a number of key global moments. The Agreed Conclusions adopted by the UN Commission of the Status of Women (UN CSW) at its 61st session in 2017 recognise that “new technologies, which are changing the structure of labour markets, provide new and different employment opportunities that require women and girls to acquire [new] skills.” In the document, the Commission urges governments to place enhanced emphasis on ICT education for girls, and ensure technological change promotes – rather than undermines – women’s economic empowerment.²² The Agreed Conclusions from UN CSW the year before also reinforced the importance of technology in promoting women’s and girls’ rights, empowerment and independence and, at paragraph 23.q, recommended that governments:

“Mainstream a gender perspective into education and training programmes, including science and technology, eradicate female illiteracy and support school-to-work transition through skills development to enable women’s and girls’ active participation in economic, social and cultural development, governance and decision-making.”²³

In July 2016, the UN Human Rights Council (UNHRC) adopted Resolution 32/13 on “The promotion, protection and enjoyment of human rights on the Internet”. In paragraph 6 of the Resolution, the UNHRC invokes the language of the 2030 Agenda and calls on all States to “bridge the gender digital divide and to enhance the use of enabling technology, in particular information and communications technology, to

²¹ UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development* (21 October 2015), A/RES/70/1.

²² UN Commission on the Status of Women 61st Session, *Agreed Conclusions: Women’s economic empowerment in the changing world of work* (March 2017).

²³ *Ibid.*

promote the empowerment of all women and girls”.²⁴ The resolution called on the UN High Commissioner for Human Rights to prepare a report on ways to bridge the gender digital divide from a human rights perspective. The report, which Plan International provided input to, was duly submitted to the UNHRC in June 2017. Among its recommendations were that: “Human rights should serve as the framework for bridging the gender digital divide”; “States should include ICT literacy skills in educational curricula for girls, and support similar learning modules outside of schools”; “Civil society should play a role in improving digital literacy and in increasing awareness of the threats that prevent women from accessing and using ICTs”; and “Gender equality should be promoted in the design and implementation of ICTs and in the policy decisions and frameworks that regulate them.”²⁵

Milestones from 1995 to 2015

The landmark adoption of the 2030 Agenda for Sustainable Development in 2015 came 20 years after the Beijing Declaration and Platform for Action (Beijing Declaration) was adopted by consensus at the Fourth World Conference on Women as the global roadmap for achieving gender equality and empowerment of women and girls worldwide. The Beijing Declaration recognised the importance of technology in promoting women’s and girls’ rights, calling for equal access for women to science and technology, and going even further in Article 75:

“Technology is rapidly changing the world and has also affected the developing countries. It is essential that women not only benefit from technology, but also participate in the process from the design to the application, monitoring and evaluation stages.”²⁶

These sentiments were echoed in more general terms in the UN Millennium Declaration, which was adopted by world leaders in September 2000. At Article 20, the Declaration states: “We resolve... to ensure that the benefits of new technologies, especially information and communication technologies, in conformity with recommendations contained in the ECOSOC 2000 Ministerial Declaration, are available to all.”²⁷ The ECOSOC Declaration referred to in that Article of the UN Millennium Declaration states that:

“The potential [of ICTs] to help foster sustainable development, empower people, including women and youth, build capacities and skills, assist small-and medium-sized enterprises, reduce poverty, and reinforce popular participation and informed decision-making at all levels is enormous.”

In 2003, at the 47th session of the Commission on the Status of Women, one of the priority themes was “Participation and access of women to the media, and information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women”. A strong message was heard throughout discussions and negotiations: the world would not succeed in eradicating poverty and creating economically just and democratic societies unless women gained full access to the information society and benefits of technology.²⁸ In their Agreed Conclusions that year, the Commission called for full participation of women in the ownership, control and management in the ICT and media sectors; inclusion of gender perspectives and measurable gender-specific targets in all programmes and projects on ICT for development; removing ICT-related infrastructural barriers that disproportionately affect women and girls; inclusion of ICT education for girls and women in curricula at all educational levels; and taking concrete steps to increase the number of female students at all educational levels in media and ICT-

²⁴ UN Human Rights Council, *The promotion, protection and enjoyment of human rights on the Internet* (18 July 2016), A/HRC/RES/32/13.

²⁵ United Nations General Assembly, *Promotion, protection and enjoyment of human rights on the Internet: ways to bridge the gender digital divide from a human rights perspective: Report of the United Nations High Commissioner for Human Rights* (5 May 2017), A/HRC/35/9, 2.

²⁶ United Nations, *Beijing Declaration and Platform of Action, adopted at the Fourth World Conference on Women* (27 October 1995). Accessed at: <http://www.un.org/womenwatch/daw/beijing/pdf/BDPfA%20E.pdf>

²⁷ UN General Assembly, *United Nations Millennium Declaration, Resolution Adopted by the General Assembly* (18 September 2000) A/RES/55/2.

²⁸ UN Department of Public Information, *Women’s access to information technologies needed to eradicate poverty, create economically just, democratic societies, women’s commission told* (6 March 2003) WOM/1391. Accessed at: <https://www.un.org/press/en/2003/wom1391.doc.htm>

related subjects, including science, mathematics and technology, through such methods as distance and e-learning.²⁹

Two separate resolutions adopted by the ITU Plenipotentiary Conference in 2014³⁰ and the UN General Assembly in 2015³¹ respectively have given rise to International Girls in ICT Day and International Day of Women and Girls in Science. These annual occasions aim to draw attention to the gender digital divide and empower girls and women to pursue careers in the technology sector.

²⁹ UN Commission on the Status of Women 47th Session, *Agreed Conclusions: Participation in and access of women to the media, and information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women* (March 2003).

³⁰ International Telecommunication Union Plenipotentiary Conference, *Resolution 70: Mainstreaming a gender perspective in ITU and promotion of gender equality and the empowerment of women through information and communication technologies*, 2014.

³¹ UN General Assembly, *International Day of Women and Girls in Science, Resolution Adopted by the General Assembly* (22 December 2015), A/RES/70/212.

EMPOWERING GIRLS TO LEARN, LEAD, DECIDE, AND THRIVE IN A DIGITAL WORLD

Plan International's Global Strategy for 2017-2022 highlights the importance of technology and digital solutions so that 100 million girls can learn, lead, decide, and thrive. This section of the briefing paper considers some past and current projects and initiatives – from Plan International and our peer organisations – that have used technology to promote the rights and unique needs of girls and women. The examples illustrate that if used inclusively and strategically, technology can be a powerful enabler and catalyst for social change and development.

Learn

“Before I came to work here, I thought that technology was a very masculine area, but here you see a lot of women who have the opportunity to work as equals in relation to men.” – Thamires, 21, Brazil³²

Over 90% of jobs worldwide already have a digital component, according to the ITU, and over the coming years most jobs will require increasingly sophisticated digital and ICT skills.³³ A 2016 survey of 5,000 men and women in 31 countries by Accenture found that “digital fluency is increasingly important in helping women advance at work... and appears to be helping women access opportunities that didn't exist before”.³⁴ To prepare girls for these jobs of the future – and ensure girls thrive within economies where routine work has been automated and digital and creative skills are most prized – it is essential for governments to equip girls with digital and ICT skills through prioritising education in these subjects. Removing barriers to girls' access, use and creation of technology should therefore become an essential part of education and skills training.

Technology can also play a role in bringing education to the most marginalized and hardest to reach children and communities. Solutions like BRCK³⁵, a self-powered rugged and portable WiFi device designed in Kenya, UNICEF's MobiStation³⁶, a solar-powered “classroom in a suitcase” and Plan International's Open Source Literacy program³⁷ are examples of how technology can be used to bridge the education gap, support literacy and reach the most remote children and communities.³⁸ Such programmes have the potential to remedy existing gender gaps and imbalances by ensuring that girls have equal access to these technologies and services alongside boys. As part of these interventions, parents and teachers are often educated about the importance of gender equality and treating girls and boys equally.

³² Plan International, “Technology training helps young women thrive in Brazil”. Accessed at: <https://plan-international.org/technology-training-helps-young-women-thrive-brazil>

³³ H. I. Touré, “Connecting Women and Youth for Digital Development” (September 2012), speech delivered at Women Leaders Forum, USA. Accessed at: <http://www.itu.int/en/osg/speeches/Pages/2012-09-24-2.aspx>

³⁴ Julie Sweet, “Access to Digital Technology Accelerates Global Gender Equality,” *Harvard Business Review* (May 2016).

³⁵ “BRCK: Rugged, Portable”. Accessed at: <http://www.brck.com/>

³⁶ Karin Bridger, “MobiStation: An innovation supporting education in and out of schools in Uganda”, *UNICEF Stories* (14 July 2014). Accessed at: <http://unicefstories.org/2014/07/14/mobistation-an-innovation-supporting-education-in-and-out-of-schools-in-uganda/>

³⁷ Plan International, “Quality education through new technology in Kenya”. Accessed at: <https://plan-international.org/kenya/quality-education-through-new-technology-kenya>

³⁸ For further examples of how educators in Kenya are using digital tools to reach students in remote communities, see: Laura Secorun, “Kenya's tech startups trial digital classrooms in drive for literacy”, *The Guardian* (23 January 2017) <https://www.theguardian.com/sustainable-business/2017/jan/23/tech-startups-kenya-bridge-education-gap>

Creative cross-sector partnerships can also play an important role in closing the gender digital divide. In Pakistan, Plan International has partnered with Telenor Pakistan, a telecommunications company, on the Safe Internet and School Outreach Programme, an initiative to establish solar-powered ICT labs in 44 schools. To date, the programme has trained over 200 teachers, 3000 parents and reached over 8,300 girls from marginalised communities. Salma, a student at one of the schools said that before the project “computing was only being taught as an optional subject”, but she has now been able to take classes in computing, digital learning and online safety.³⁹

Case study: Plan International India and Ericsson develop Digital Learning Centres for Girls

Through a partnership between Plan International and Ericsson, 15 digital learning centres have been established in urban Delhi to benefit girls and young women aged 15-25 whose mobility, safety and education are limited due to high risk of abuse, sexual violence and other forms of harassment. The Digital Learning Centres use interactive virtual learning solutions to provide crucial ICT skills, as well as leadership and life skill education, to young women within their own communities. Since launching in 2015, the centres have provided classes to almost 15,000 girls, and sensitised over 57,000 parents and community members on the importance of girls’ education. Plan International India is exploring opportunities to replicate and scale up the model in other parts of India to reach hundreds of thousands more girls and young women.

To learn more about the Digital Learning Centres for girls, see [this video about the program](#) on YouTube.

Case Study: Technology training helps young women thrive in Brazil

In Brazil, women account for only 22% of total students on university computer science courses, and 30% of engineering students. There is, therefore, a clear need to encourage more girls and women to participate in the country’s technology industry. Many different areas of work increasingly require expertise in software, applications and programming, and without skills in these areas, girls and women risk being left behind. Nurturing a more diverse workforce in the technology sector will also ensure new points of view are incorporated into the development of technological solutions.

Plan International Brazil and Accenture are working together to address this problem and increase girls’ involvement in the country’s technology sector. Through the Youth Building the Future project, developed in Recife, in the northeast of the country, young women receive training that enables them to access the labour market equipped with the appropriate technical and digital skills. To date some 1,600 youths have been trained through the project, of which around 70% have been women. The project is about more than skills, however. Project mentors follow up with graduates and support girls not only in gaining new skills, but also in changing their mentality towards technology-focused fields.⁴⁰

Lead

“Those gadgets help me campaign for social change, especially parents who think that girls and boys should be treated differently in terms of access to education, economy and so on. I want to support campaigns for gender equality using these gadgets. I want to spread the message with technology. I want to have boys’ and girls’ equality.” – Vega, 17, Indonesia⁴¹

Technology is not a prerequisite for being a change agent or a leader, but it can be a powerful tool for girls’ voices to become even louder and reach further. Social media can be used as a vehicle to spread inspirational stories of female leaders and connect activists and change makers across the world. Stories of girls taking control over their own futures and lives can be spread and used as a catalyst for more action, and mediums such as online maps, video and podcasts can be effective tools for influencing citizens and decision makers.

³⁹ For more information, see: <https://plan-international.org/girls-pakistan-unlock-opportunities-through-ict-skills>

⁴⁰ For more information, see: <https://plan-international.org/technology-training-helps-young-women-thrive-brazil>

⁴¹ Nikki van der Gaag et al., *The State of the World’s Girls 2014: Pathways to Power: Creating Sustainable Change for Adolescent Girls* (Plan International: 2014), 104.

**“TECHNOLOGY CAN
BE A POWERFUL
TOOL FOR MAKING
GIRLS’ VOICES
EVEN LOUDER.”**

Online spaces and digital tools allow women and girls to organize more efficiently and galvanize global action for common causes, such as fighting against harmful gender stereotypes or standing up against gender-based violence. One great example of the use of a digital platform for organizing is the Take Back the Tech⁴² initiative, a global, collaborative campaign that highlights the problem of technology-related violence against women, together with research and solutions from different parts of the world. The website includes information about gender-based violence online, offers girls and women resources on how to combat online harassment and abuse and connects girls and women from around the world to amplify their voices. Providing girls with training on how to effectively take advantage of social media and digital tools for activism, awareness raising and campaigning while also teaching girls about issues concerning safety can be a powerful tool for enabling more girls to become agents of change and leaders in their communities. Another digital tool that empowers girls to effect change in their community is the Free to Be app developed by Plan International and Crowdsport. This app allows girls to drop a ‘pin’ on an online map and describe an experience – positive or negative – that took place in a public area. For more information about this initiative, see the case study on page 14 below.

Today, the role of media – and especially social media – is also increasingly important for shaping young people’s attitudes, worldviews and values. The media’s portrayal of women and girls has a subconscious effect on how young people grow up to see themselves, and can shape the gender structures and power dimensions in societies.⁴³ Ensuring that the media portrays stories and images of women and girls who are leading change and taking control over their own lives and futures is crucial not only for the empowerment of girls, but for shaping the way boys and men see the role and importance of girls and women in societies. To achieve this goal, it is also important to ensure that women and girls aren’t only present as the subjects of media stories, but as the producers of them as well. This can be achieved through promoting women’s and girls’ access to and participation in creating content for media, including traditional media and newer forms of digital and social media.

Case Study: Plan International Sri Lanka and Plan International Ireland: Empowering Women Through e-Governance

Since 2015, the Plan International office in Sri Lanka has been implementing a programme titled “Empowering Women through e-governance” in partnership with Plan International Ireland, funded by the European Commission. This three-year programme aims to empower marginalised women from plantations and rural village communities in Monaragla and Nuwara Eliya Districts and their representative civil society organisations to access rights, opportunities and services, with a particular emphasis on how ICTs can be used efficiently to reach these results. The programme has provided training for relevant government officials and members of local women’s groups on ICT skills and using government e-services, developed training modules on topics like women’s human rights, gender-based violence, livelihoods and access to government e-services.

An e-platform is also being developed, focusing on the information needs of target communities, designed to be in accessible formats relevant to the literacy and language requirements of target communities. Laptops and smart phones have been provided through the programme for the target communities that can be used to access government services and internet banking facilities, supporting women’s access to vital information about rights and entitlements and strengthening their financial independence. Trainings on ICT have been conducted for government officers in the communities where it is being implemented, with a

⁴² “Take back the tech: 16 days of activism against gender-based violence”. Accessed at: <https://www.takebackthetech.net/>

⁴³ Nikki van der Gaag et al., *The State of the World’s Girls 2014*.

focus on raising local authority awareness on using ICT in their daily activities and how to incorporate ICT in delivering services to the community, especially to women.⁴⁴

Decide

An essential component of girls and young women being able to make informed decisions is having access to reliable, factual information and advice regarding issues such as sexual and reproductive health, family planning, and local and international laws about age of marriage.

Technology can be used as a medium for delivering this information to girls and young women in a simple, accessible manner and many apps have been developed and tested for such a purpose. In 2015, UNFPA organised the Hack for Youth event in Kampala, Uganda,⁴⁵ where 80 participants from 20 countries came together to develop and design mobile phone apps to promote sexual and reproductive health. Such apps tackle issues from reporting instances of sexual violence to delivering vital health information to pregnant women, and can help women track their fertility and gain a better understanding of how their own bodies work. In many countries, comprehensive sexuality education is still absent from school curricula, and technology can be a powerful tool for filling that gap. Pathfinder International has been using mobile technology to advanced youth sexual and reproductive health in Mozambique by delivering information and stories about sexual health and contraception to young people via SMS messages.⁴⁶

Case Study: Plan International Bangladesh's use of Voice SMS to advise pregnant women

Pregnancy and motherhood in Bangladesh is risky. Although antenatal care coverage is on the rise, the majority of pregnant women and new mothers remain without access to adequate care. Also, despite improvements in infant mortality far too many preventable deaths occur as a result inadequate or unavailable care. To address the situation, Plan International Bangladesh has conducted voice SMS campaigns targeting expecting mothers. The aim of the campaigns has been to provide pregnant women with reliable information on maternal and child health in a format easily accessible to them, regardless of their location. Using pre-recorded messages sent to mobile phones has proven to be effective, particularly in rural areas of Bangladesh where literacy often limited among women. The campaigns have resulted in increased awareness of maternal and child health issues and improved update of best practices among targeted women.

Case study: Plan International Timor-Leste's mobile app for sexual and reproductive health

Poor knowledge about sexual and reproductive health and rights in Timor-Leste fuels the rates of early pregnancy and early marriage among girls and young women. In the country, unmarried couples do not have access to contraception. The statistics around early pregnancy and marriage speak for themselves. In Timor-Leste, 19% of girls marry before they turn 18 and 24% have a child before they turn 20.

In response, Plan Timor-Leste has developed a mobile app, Reprodutiva, to educate young girls and women on their sexual and reproductive health and rights (SRHR). The app aims to increase safe and confidential access to quality SRHR information and services in the country, where sexuality is considered a taboo subject. Users can clear their doubts by chatting with experts from Plan International's partner, Marie Stopes Timor-Leste, or even make a free call for an individual consultation or schedule a medical check-up with reproductive health clinic. The app also contains frequently asked questions and a calendar designed to help young women keep track of their menstruation cycle.

Thrive

To achieve a world where vulnerable and excluded children, particularly girls, grow up equally valued and cared for, free from discrimination and fear or violence, technology can be used as way to bring information

⁴⁴ For more information, see: <https://plan-international.org/empowering-women-through-e-governance-sri-lanka>

⁴⁵ Els Dehantschutter, "At Uganda hackathon, youth code their way to better sexual and reproductive health", *UNFPA* (30 July 2015). Accessed at: <http://www.unfpa.org/news/uganda-hackathon-youth-code-their-way-better-sexual-and-reproductive-health>

⁴⁶ Pathfinder International, "mCenas!". Accessed on <http://www.pathfinder.org/projects/mcenas/>

and resources to both parents and other caregivers of young children. Simple SMS messages can be used to deliver vital information about nutrition, new-born and child health or other important topics. The Safe Delivery App⁴⁷, developed by the Maternity Foundation, is a smartphone app that provides skilled birth attendants with direct and instant access to evidence-based and up-to-date clinical guidelines on Basic Emergency Obstetric and Neonatal Care. In India, an app was launched in 2016 by the Breastfeeding Promotion Network of India to promote breastfeeding and allow users to report inappropriate promotion of marketed baby food items.⁴⁸

Plan International's own Solar Media Backpack, a portable solar-powered media centre, was specifically designed to meet the needs of remote and rural Early Childhood Development centres that are often unable to use technology and multimedia because of a lack of infrastructure, reliable energy source or poor road conditions. The backpack can be used as a tool to deliver information to parents as well, for example to educate them about the importance of gender-equal parenting or negative impacts of harmful practices such as child marriage or FGM.

While digital technology is rich with potential for promoting girl's empowerment, it can also expose children to violence, abuse and exploitation. The rise of the internet in particular has outpaced legal and governance frameworks, presenting significant problems for attempts to regulate it. Initiatives like Take Back the Tech aim to fill this governance void and reclaim technology and the internet to combat violence against women and girls and strategically use any ICT platform at hand for activism against gender-based violence. Egypt's HarassMap tackles sexual and gender-based violence by crowdsourcing reports about sexual assault and harassment to demonstrate the scale of the problem and encourage more individuals and institutions to stand up against sexual assault.⁴⁹

Case Study: Free to Be, Plan International Australia

Research published by Plan International Australia and Our Watch in early 2016 found that found one in three young women in Australia do not believe girls should go out at night. To address the situation, Plan partnered with Crowdsplot, together with the girls who participated in the research, to co-design Free to Be, an online map that people can use to drop a 'pin' and explain their experience in a certain place.

Free to Be has a focus on public spaces and is concerned with gathering the stories of people from around a certain area. A key aspect of the project was also to engage in community advocacy activities, with young women taking the lead. In 2016, the map was launched in the city of Melbourne. People could visit the site on their phone, tablet or computer and were able to drop a pin, and simply select an emoji that represents what they have experienced. Pins could be dropped for both positive and negative experiences. Although users remained anonymous throughout the process, they had the option of entering further text about their experience, as well as their age, their gender and their email to stay up to date.

Young women were consulted throughout the process to ensure the tool was addressing the issues they actually experience. Data was collected over three months at the end of 2016, with a total of 1300 pins dropped on the online map of Melbourne. This data was then used to advocate to make the city a safer place for young women. The project is now working with partners in the transport industry to that end. The project also created discussion on the girls' and women's sense of safety in the city, with 191 media reports about the project reaching almost 165 million people.⁵⁰

Plan International Vietnam and UN-Habitat: Using Minecraft as a tool for participatory urban planning among adolescent girls

In Hanoi, Vietnam, Plan International has partnered with UN-Habitat on Block by Block, an innovative approach to engage adolescent girls between the ages of 13 and 16 in participatory urban planning. Block

⁴⁷ For more information, see: <http://maternity.dk/the-safe-delivery-app/>

⁴⁸ The Statesman, "App to spread awareness against artificial baby food" (3 December 2016). Accessed at: <http://www.thestatesman.com/science/app-to-spread-awareness-against-artificial-baby-food-1480756232.html>

⁴⁹ HarassMap, "What we do". Accessed at: <http://harassmap.org/en/what-we-do/>

⁵⁰ For more information, see: <https://www.plan.org.au/free-to-be>

by Block uses the popular game Minecraft to engage poor communities in urban design and to raise funds for the improvement of public spaces. In Hanoi, the Block by Block approach was implemented for the first time with a group consisting of only adolescent girls, as part of an existing Safer Cities initiative in the community of Kim Chung. The participating girls had completed a safety walk in their community, identifying issues of safety and security, particularly for girls and women. A model of the Kim Chung community had been created in Minecraft, and during a two-day workshop the girls proceeded to redesign their community in Minecraft, addressing the concerns and issues they had identified during their safety walk. At the end of the workshop they presented their Minecraft designs to local and international authorities and dignitaries, resulting in a commitment from the local District Vice Chair to implement some of the girls' suggestions, including more and better lighting and a safety fence around a deep canal that runs through the community.

The Block by Block approach illustrates how games can be used to engage people – especially young people – in important matters that are relevant to their wellbeing, safety and health, such as urban planning and public spaces. Engaging girls in such activities can be a powerful tool for fighting harmful gender stereotypes and breaking taboos around girls' suitability for gaming and computer fields in general. Plan International and UN-Habitat are exploring possibilities for expanding the partnership to other locations.⁵¹

⁵¹ For more information, see: <https://plan-international.org/blog/2017/04/building-safer-hanoi-girls-minecraft>

BRIDGING THE GAP: KEY CHALLENGES AND BARRIERS

It's a Man's World: Technology as an enforcer of harmful and discriminatory stereotypes

"The new world that is being built is still seen as something created by and for men, whilst women are portrayed as the consumers – not creators – of technology."

- Plan International: The State of the World's Girls 2015: The Unfinished Business of Girls' Rights

Across the globe, the world of ICT is dominated by men. There is a deeply-rooted misconception about boys and men being more naturally suited for these fields. In a 2016 survey, 51% of girls in UK agreed with the statement that science, technology, engineering and mathematics subjects "have the image of being more for boys" than girls.⁵² According to UNESCO, girls and women are poorly represented across the ICT fields but most notably in engineering and computer science, and in the latter there has been a steady drop in female graduates since 2000 across the world.⁵³ This is particularly worrying, as the field of computer science and technology is becoming increasingly important for countries in terms of their economic growth, development and overall progress, and some level of basic computer skills is now required in almost every aspect of our daily lives. There is also evidence that women working in ICT-related jobs earn almost 9% more than women in similar positions in the non-ICT service sectors.⁵⁴

There is a notable gap in reliable data on women's and girls' participation in the technology sector, especially outside of western countries. Available data suggests that traditional patterns of gender hierarchy are being replicated in the digital economy and labour market: men predominate in high-skilled, higher wage jobs, and women hold low-skilled, lower wage jobs with few benefits or less security. A study of global trends in the technology sector found that, on average, women accounted for 30% of operations technicians, but only 15% of managers and 11% of strategy and planning professionals.⁵⁵

Gender gap in ownership and use of technology holds back girls and women

There are 3.9 billion people in the world who are currently not connected to the internet, and the majority of them are girls and women. According to recent statistics from the ITU, the internet gender gap grew from 11% in 2013 to 11.6% in 2017 and internet penetration rates are higher for men than women in all regions of the world.⁵⁶

Women and girls in low and middle-income countries are 10% less likely to own a mobile phone than men, which means that 184 million fewer women than men own a mobile device worldwide.⁵⁷ Not only are women less likely to own a phone, but there is a usage gap: women's use of a mobile phone is less frequent than men's, and women are less likely to use the more advanced features of their phones, such as mobile

⁵² Girlguiding, *What girls say about... digital technology* (London: Girlguiding, 2016), 2.

⁵³ UNESCO, "Science Report 2016: Towards 2030", *UNESCO Publishing* (2016).

⁵⁴ European Commission, *Women active in the ICT sector*, (Brussels: European Commission, Directorate-General for Communications Networks, Content & Technology, 2013), 13.

⁵⁵ Ann Mei Chang and Catherine Powell, "Women in Tech as a Driver for Growth in Emerging Economies", *CFR Discussion Paper* (Council on Foreign Relations: July 2016).

⁵⁶ International Telecommunication Union, "ICT Facts and Figures 2017," (International Telecommunication Union, 2016). Accessed at: <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf>

⁵⁷ GSMA Connected Women, *The Mobile Gender Gap Report 2018* (London: GSMA, 2018).

internet. Studies suggest that in some cases, women make up to four times less outgoing calls on their phones as men, indicating that women are often limited even in the very basic use of a phone.⁵⁸ There has been much discussion in recent years about the rapid spread of mobile devices even in remote areas in developing countries, but the availability of devices and services provided through mobile phones is still far from equal. Similarly to other areas of everyday life, women and girls face gender-based barriers to both ownership and use of mobile devices that hinder their ability to harness the potential of such devices for improving their lives.

Traditional roles and gender stereotypes barring women and girls from accessing technology

The reasons behind the gender digital divide are complex and vary between countries and regions, but are often related to a notion of women and girls as second-class citizens, which leads to prioritising the needs and interests of boys and men.⁵⁹ These kinds of underlying barriers can also be referred to as social norms that influence women's and girls' role and status at virtually every level of the society, and therefore have a strong impact on their ability to access and use technology. In households with only one phone, it is common for the phone to be owned and controlled by male family members, limiting girls' ability to develop their technical literacy⁶⁰ as well as access information of a sensitive nature. Available research suggests that when a family buys a computer, it is often intended for the boy rather than the girl child, because parents can better envisage the potential for a boy to enter a future career in the ICT sector.⁶¹

While great progress has been made in terms of reaching gender parity at the primary school level, girls' attendance at the secondary level remains at a notably lower rate than that of boys in almost all developing countries. School is often the place where many children are introduced to technology such as laptops and tablets, and if girls are not in school, they are missing out on these opportunities to become familiar with technologies and learning basic ICT skills that would be invaluable for them in the labour market. Two thirds of the world's over 700 million illiterate adults are women.⁶² Illiteracy is a big barrier for girls' and women's ability to take advantage of technology and full functionality of their devices, such as mobile phones, even when these devices are available to them.

Concerns over girls' and women's safety

Safety issues are also a barrier for girls and women to have access to technology and the internet. Parents may feel less inclined to allow girls to use mobile phones, laptops and access the internet because they believe it puts them at risk. According to Intel's 2013 Women and the Web report, 25% of non-internet users between the ages of 14 and 17 reported that their families opposed them being online because they saw it as a risk for their safety and for fearing that they might meet someone dangerous online.⁶³

These fears are not unwarranted. The internet is a hostile place for females, and sexism and harassment is commonplace and often hard to control or prevent. This behaviour also aims to silence women and girls online and force them out of digital spaces, further limiting their ability to effectively take advantage of the internet and digital tools.

These risks are not unique to the internet but mirror the challenges women and girls already face in the offline world. The solution therefore is not to prevent women and girls from getting online, but to teach them about online safety, how to safeguard their private information and sensitive details, how to recognize potentially dangerous websites and how to protect themselves from abuse and online harassment. More importantly, our primary response should be to work towards fixing the underlying causes by promoting

⁵⁸ Ibid.

⁵⁹ Nikki van der Gaag et al., *The State of the World's Girls 2010: Digital and Urban Frontiers* (Plan International: 2010).

⁶⁰ GSMA Connected Women, *Bridging the gender gap* (2015)

⁶¹ Intel Corporation, *Women and the web: Bridging the Internet gap and creating new global opportunities in low and middle-income countries* (California: Intel Corporation, 2013), 54.

⁶² UNESCO, "Women and Girls' Education: Facts and Figures". Accessed at: <http://www.unesco.org/new/en/unesco/events/prizes-and-celebrations/celebrations/international-days/international-womens-day-2014/women-ed-facts-and-figure/>

⁶³ Intel Corporation, *Women and the Web* (2013).

gender equality, fighting patriarchy and misogyny and working towards societies where women and girls are valued and treated equally and fairly, both online and offline.

Research snapshot: Risks faced by girls online

Research by Plan International illustrates the unique risks that girls face online. A 2016 joint study by Plan International Australia and Our Watch, “Don’t Send me That Pic”, found that seven out of ten Australian girls aged 15-19 believe online harassment and bullying is endemic, and 51% of girls believe that girls are pressured into taking explicit photographs of themselves and sharing them. The study recommended that schools address and prevent cyberbullying through a systematic “whole school approach” supported by professional learning for staff, curriculum learning for students and education sessions for families, coupled with quality school policies and a positive school culture that encourages reporting of bullying.⁶⁴ A 2016 study by Plan International UK, “The State of Girls’ Rights in the UK” similarly found that “girls are clear about the immense pressures to meet certain standards [in digital communication] and the prevalence and impact of cyber-bullying... [and] too frequently, measures designed to protect girls are ineffective or even have negative consequences”.⁶⁵

In other recent research by Plan International in Colombia, girls who were interviewed cited the pressures they face to be popular in virtual social network circles and shared how social media can be used by other girls to monitor and stigmatise girls. A girl who identified as Afro-Colombian, described how her “black friend whose skin is darker than mine and she has short hair” was discriminated against on account of her ethnicity and different style. This comment underscores how gender based trolling and abuse often also comes layered with other discriminatory practices. As further evidence of this, a 2016 report by the European Network Against Racism found that online hate attacks against Muslim women are increasing, with verbal abuse and hate speech being the most common incidents. The report notes that “individual Facebook and Twitter users make direct attacks on Muslim users as well, often singling out Muslim women”.⁶⁶

Cost is a bigger barrier for women than men

According to GSMA’s 2018 Connected Women report, cost is the biggest barrier to girls and women owning and using a mobile phone, much more so than for men. This is likely to also contribute to women usually owning more basic devices than men and having less functionality, such as mobile data. This stems from the fact that in many instances, women have less financial independence than men, are less likely to have access to financial services like a bank account, and might often require a male family member to help them obtain both the device and sim card for their device. Even when women do earn their own income, they often aren’t the ones deciding how that income is being used. Cost is also a barrier to girls’ and women’s access to technology beyond mobile phones and for example prevents some women and girls from being able to use the internet, which becomes even more evident especially amongst rural and poor women.⁶⁷

⁶⁴ Plan International Australia and Our Watch, *Don’t send me that pic – online sexual harassment and Australian girls* (Plan International: 2016).

⁶⁵ Plan International UK, *The State of Girls Rights in the UK* (Plan International UK: 2016).

⁶⁶ Đermana Šeta, *Forgotten Women: The Impact of Islamophobia on Muslim Women* (Brussels: European Network Against Racism, 2016), 27.

⁶⁷ Chris Locke et al., “Digital Access in Africa”, *Caribou Digital Publishing* (2016), 39.

TOWARDS A GENDER EQUAL DIGITAL FUTURE: CONCLUSION AND RECOMMENDATIONS

Technology and digital tools are not a panacea for the global epidemic of gender discrimination and inequality. But if used strategically and inclusively, they have the potential to promote the rights of girls and women and help them to realise their potential.

For this to occur, it is essential that girls and women have equal access to learning relevant technical skills and digital literacy in school and through training programs. All relevant stakeholders – families, governments, civil society organisations and the private sector – must remove barriers that currently prevent women and girls from accessing and using technology on an equal basis with men and boys. There must be a concerted effort to challenge gender barriers, social norms and gender-based discrimination in all aspects of women's and girls' lives, so that girls are empowered to consider working in the ICT sector.

“OUR JOB IS SIMPLY TO CLEAR THE PATH – LET GIRLS BECOME THE TRAILBLAZERS WE KNOW THEY CAN BE.”

But perhaps most importantly, it is not the role of any one stakeholder to presume to know what girls and women want and need from technology and digital tools. The job of girls' rights advocates is simply to clear the path, open the door, and let girls become the change agents, trailblazers and leaders we know they have the potential to be. Technology alone won't make that happen – but it plays an increasingly important role in our quest to build just societies for everyone and a world where all children, especially girls, can learn, lead, decide and thrive.

Educate equally

The first step towards improving women's and girls' access to and use of technologies and digital spaces is to make them more relevant and safer for women and girls. To that end, governments should mainstream ICT and digital technology education in national curricula, and actively support and promote girls' participation in these subjects, to ensure girls have equal access to opportunities in the workplaces of the future.

Governments, families, civil society organisations and the private sector must also challenge the stereotypes that dissuade girls from studying subjects related to ICT, and pursuing careers in the ICT sector. One way of achieving this is to promote role models and mentors for girls so that they can grow up knowing and believing that their gender should not be a barrier for anything they want to do or become.

Close the access and usage gap

Girls might be reluctant to access computer classes and internet cafes, because these spaces are often dominated by men or they are located in places that are not accessible to women. This can be remedied by creating classes and sessions specifically targeting girls in locations accessible to them, teaching digital

literacy and ensuring they know how to get the most out of their devices. Other strategies to close the access and usage gap are to:

- Work with partners to encourage telecommunications companies and internet providers to bring down the cost of airtime, mobile data and broadband internet.
- Ask women and girls what they need from technology: do they want to connect with their peers, access information, use it for mobile financial services, or something else? What currently prevents them from utilising technology to improve their own lives? Ask enough questions to really understand why girls and women can't currently take advantage of ICTs to their fullest, and work to break these barriers together with them.

Make digital environments safe for girls

Safety is a justified concern for girls and women in online spaces. The digital world reflects the diversity of the physical world, and girls experience many of the same forms of violence, harassment and abuse online as they do elsewhere. Ensuring girls and boys are aware of the risks associated with using technology and being online and know what to do and who to contact if anything makes them feel uneasy is a crucial part of closing the digital gender gap. This can be achieved through workshops, teacher training, cyber security classes and other such initiatives that aim to arm girls and boys with the knowledge and skills they need to be able to keep themselves safe online. In promoting cyber security, however, we must ensure that – without holding girls and women back in terms of their access to and use of technology – we are equipping them with the skills that they need to keep themselves safe from risks both offline and online.

There is also work to be done to strengthen existing laws and policies to ensure girls are safe in online spaces. One way of achieving this would be for the UN Committee on the Rights of the Child to develop and adopt a new General Comment on Children and the Digital Environment which would provide urgently-needed guidance on the interpretation of the UN Convention on the Rights of the Child in the digital era. In addition, governments should actively enforce legislation that monitors and restricts the production and distribution of content depicting the abuse of children.

Empower girls and women to create technology and digital content

It is important to recognise the role of women and girls not just as users and consumers of technology, but as developers and creators of it as well. Much of the technology and digital content we use today has been designed and developed by men – but research has shown that women and girls use technology and digital tools in a different ways to boys and men, and therefore their needs most likely are also different. Most of the existing research is from western countries, so a data gap also exists in terms of the priorities and needs of users, especially girls and women, in the global south.

The need for diversity among the creators of technology will be all the more important as machine learning and artificial intelligence become ubiquitous. If machines are programmed, consciously or not, to learn from the current status quo, we risk them reproducing and reinforcing existing power relations, including gender inequality. Programmers of more diverse backgrounds are less likely to create overtly sexist or racist algorithms.

As we clear the path for women and girls to have access to technology and digital content on par with boys and men, it is essential that we also enable and promote their participation as the makers and creators of tech. In addition to educating equally, closing the access and usage gap, and reclaiming the internet for girls, this also involves making visible and celebrating women's contributions to and achievements in tech, as well as encouraging mentorship and building of community among women in the technology sector.

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Plan International

International Headquarters
Block A Dukes Court
Duke Street
Woking GU21 5BH
UK

plan-international.org

About Plan International

Plan International is an independent development and humanitarian organisation that advances children's rights and equality for girls. We strive for a just world for children and young people, working with them and our supporters and partners to tackle the root causes of discrimination against girls, exclusion and vulnerability.

We support children's rights from when they are born to when they reach adulthood. Using our reach, experience and knowledge, we drive changes in practice and policy at local, national and global levels and enable children and young people to prepare for and respond to crises and adversity. We have been building powerful partnerships for children for over 80 years, and are active in more than 70 countries. We are independent of governments, religions and political parties.