UNICEF Gender and Innovation
Evidence briefs - Insights into the gender digital divide for girls

What we know about the gender digital divide for girls:
A literature review

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What we know about the gender digital divide for girls: A literature review

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Introduction

What is digital technology?

Digital technologies are electronic tools, systems, devices and resources that generate, store or process data. Digital technologies are continually evolving and expanding. They include the internet and mobile technologies; digital networks, content, services and applications; old and new systems of media, communication and information; connected devices and environments; virtual and augmented reality; artificial intelligence, including machine learning; robotics; automated systems and data analytics; and biometrics and biotechnology.

Online experiences and opportunities are critical for children's and young people's development across a wide range of areas. These include engagement in online education, both formal and informal learning, access to critical information and support related to health and well-being, participation in creative and cultural practices, civic engagement and expression of ideas and opinions, leisure and connecting with peers, and searching for employment, career information and entrepreneurship opportunities.[1]

Digital literacy is increasingly seen as an essential skill for employability and has been linked to higher earning potential and new economic opportunities.[2]

Over 90% of jobs worldwide have a digital component.[3]

However, distinct geographic, economic, and social gaps in access persist, including those related to disability and gender.[4] Closing the digital divide for all children needs tailored understanding and actions for each of these barriers.

1 Stoilova et al, 2021
2 UNICEF, 2017
3 United Nations, 2018
4 UNICEF, 2017; UNESCO, 2019

The gender digital divide community of knowledge is overwhelmingly focused on women (above 18 years).

This leaves a significant knowledge gap on the digital realities for today's generation of girls.[5]

However, limited available data does demonstrate that girls face similar patterns as women, including lower access and use.[6] There are similar regional variations and significant gaps in use of more sophisticated technology tools (e.g., smartphone access and range of use).[7]

5 GSMA, 2020; ITU, 2019; EQUALS, 2019
6 Girl Effect, 2018
7 GSMA, 2020; Girl Effect, 2018

The current evidence base

What is the gender digital divide?

Gender inequality in the physical world is replicated in the digital world.

There is a large gap in women and girls' digital adoption and use compared to men and boys.

However, most data available to quantify this gap focuses on adults only, not children. The International Telecommunications Union (ITU) reports that more than 50% of the world's women are offline.[8] This is more pronounced in developing countries, where the internet penetration rate for adult women is 41%, compared to 53% for men.[9] GSMA found that 393 million adult women in developing countries do not own mobile phones, and globally, women are 8% less likely to own a mobile phone than men.[10]

There are also stark regional differences. For instance, the gender gap in mobile ownership is much larger in South Asia (23%) and sub-Saharan Africa (13%).[11] Women are more likely than men to borrow or share mobile phones (often within a household or from a male family member) and are rarely the primary owners of a mobile device.[12] GSMA reports that women are more likely to have simpler feature phones that do not support mobile internet use, and women are 20% less likely than men to own a smartphone.[13]

8 ITU, 2019
9 ITU, 2019
10 GSMA, 2020
11 GSMA, 2020
12 EQUALS, 2019
13 GSMA, 2020

This gender gap in digital access is accompanied by a gender gap in meaningful digital use.

Several studies have found that women tend to use mobiles and the internet differently than men. For example, limited by less expensive and sophisticated handsets, women use a smaller range of digital services (often primarily voice and SMS). Women also use digital services less often and less intensively, and they access the internet less frequently, for fewer reasons.[14]

These disparities in usage limit women's access to the full range of opportunities offered by digital.[15]

What do we know about the gender digital divide for girls?

To date, there is little research on gender differences in digital access for children under the age of 18.[16]

However, the limited data available does indicate a similar pattern of lower access and use for girls, as for women. In countries with data, girls aged 15–19 years were less likely than boys to have used the internet in the past 12 months, and they also had lower mobile phone ownership. The greatest disparities were in South Asian countries. For instance, rates of internet use among boys were double those of girls in Nepal, and quadruple those of girls in Pakistan. Phone ownership was almost 30% higher among boys in Nepal, Pakistan, and Bangladesh. Weekly access to information media was also substantially lower among adolescent girls in Nepal, India, Afghanistan and Timor-Leste.[17]

14 Web Foundation, 2015; Web Foundation, 2016; LIRNEasia, 2019; GSMA, 2020
15 USAID, 2020
16 Tyers A and Banyan Global, 2020
17 UNICEF EAP, 2019

Another study, by Girl Effect and the Vodafone Foundation, found boys are 1.5 times more likely than girls to own a mobile phone and 1.8 times more likely to own a smartphone.[18] More than half (52%) of girls borrow mobile phones if they want digital access, compared to 28% of boys.[19] As for adult women, this gender gap in access is echoed in digital use overall.

Boys use far more digital platforms and services for a much wider range of activities than girls, and they are more likely to use the internet.

Roughly 46% of boys use the internet on their phones, compared to 27% of girls.[20]

Why is it important for girls?

As the digitization of economies expands, economic and social growth will increasingly depend upon people's ability to use technology. While some jobs require very advanced digital skills, most jobs and daily activities need basic digital literacy to engage with a digital economy.[21]

Without increased digital adoption and use, girls will have fewer employment opportunities and will face additional barriers to workforce participation.[22] [23]

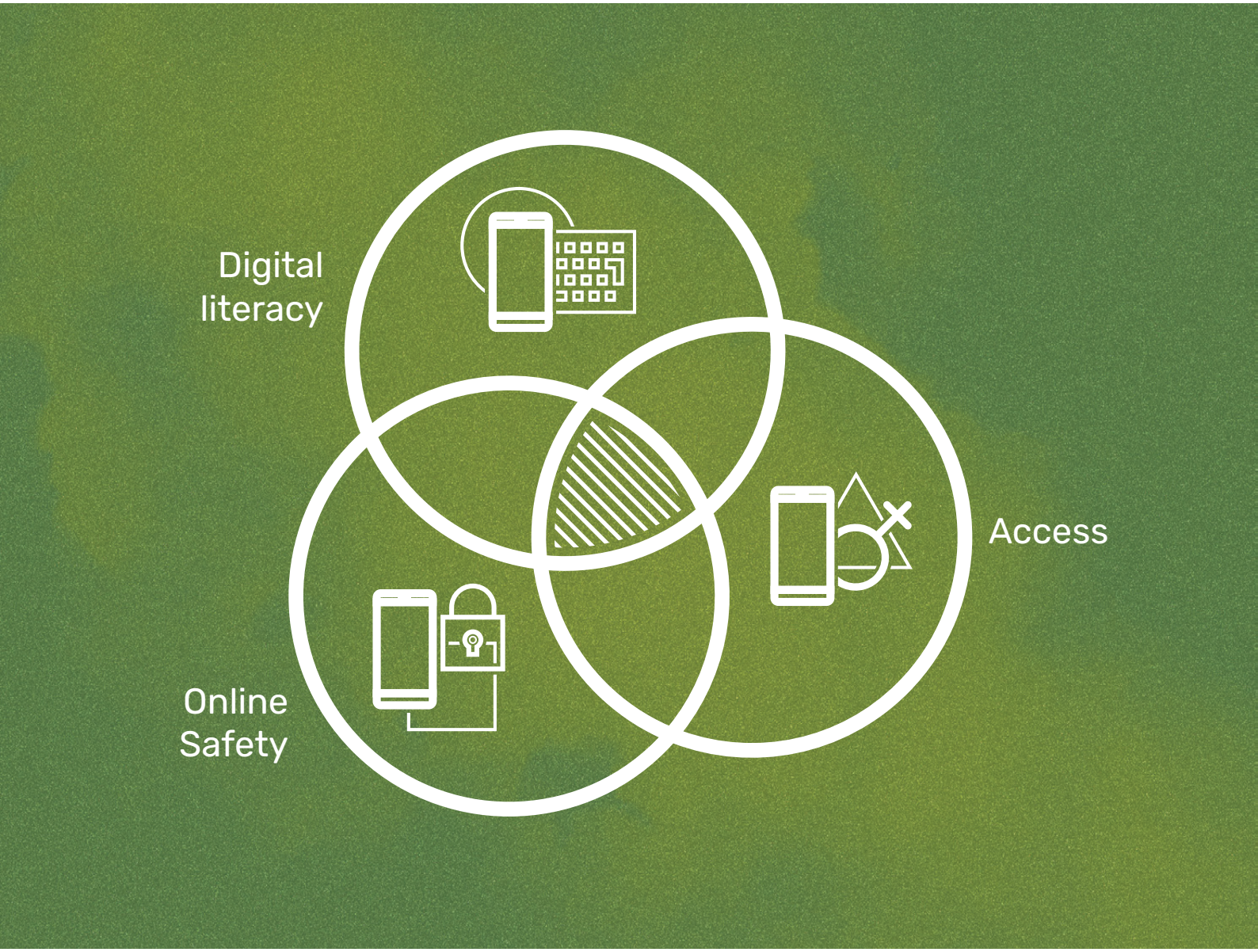
Digital adoption and use can also offer women, and girls in particular, opportunities to overcome hurdles they may face in the physical world. Digital access can empower women and girls, help expand their sense of self in the world, increase civic engagement, and raise awareness of their rights.[24]

18 Girl Effect and Vodafone Foundation, 2018
19 Girl Effect and Vodafone Foundation, 2018
20 Girl Effect and Vodafone Foundation, 2018
21 UNESCO, 2019
22 Plan, 2020.
23 USAID, 2020
24 OECD, 2018

What needs to be addressed to close the digital gender gap?

Reasons for the digital gender gap include inequitable access to education and harmful social norms that exist in the "offline" world and impact digital realities and potential benefits for women and girls.[25] Factors that need to be addressed to close the gender digital divide can be broadly categorized into three interlinked areas: access, digital literacy, and online safety.

25 Tyers A and Banyan Global, 2020



Access

A key barrier to women and girls' digital inclusion is lesser access, compared to men and boys. This includes access to devices, to data, and to networks.

Low levels of infrastructure, network quality, and coverage disproportionally affect access for women and girls. Their choice of network is often restricted by various factors, such as more basic handsets[26], fewer choices of SIM, and the cost of data.[27] The Alliance for Affordable Internet (A4AI) reports that costs tend to be higher in areas with lower connectivity due to lack of market competition[28] and found that women and girls tend to be more price-sensitive than men. Women often have lower levels of income (women often earn 30–50% less than men[29]) and are often less financially independent.[30] GSMA found that women and girls with less disposable income to spend on mobile or internet services[31] go online less frequently. Women and girls who live in remote areas were particularly affected, due to significant gaps in infrastructure and network coverage in rural areas.[32]

Social norms and gender inequality underpin women's and girls' lesser digital access.[33]

The internet is often perceived as a risk to the traditional social order or seen as unsafe for women and girls.[34] Male (or family/community) gatekeepers control or restrict access to devices and the internet for many women and girls.[35] For example, GSMA reports that some rural communities in northern India have banned women's mobile phone use altogether, and other communities have decrees declaring internet use "immoral" for women.[36] Several studies report these restrictions to be greater for younger women and girls.[37] However, Research ICT Africa has found that removal of social norms barriers enables women and girls to be more frequent and active users.[38] Similarly, Girl Effect reports that in contexts where girls have more freedom and agency, they are more likely to have access to digital technology. Increased access supports greater digital literacy, as there are more opportunities for learning and skill development, and improved management of (perceived) online risks.[39]

26 GSMA, 2020
27 Alliance for Affordable Internet, 2019
28 Alliance for Affordable Internet, 2019
29 Alliance for Affordable Internet, 2015
30 Web Foundation, 2015; Web Foundation, 2020
31 GSMA, 2020
32 GSMA, 2020
33 Web Foundation, 2016
34 Web Foundation, 2015; Web Foundation, 2016; Girl Effect and Vodafone Foundation, 2018, USAID, 2020; GSMA, 2020;
35 GSMA, 2020
36 GSMA, 2019
37 GSMA, 2015; EQUALS, 2019;
38 Research ICT Africa, 2012.
39 Girl Effect and Vodafone Foundation, 2018

Digital literacy

Digital literacy includes "both the skills to functionally be able to use the Internet and digital technology, as well as the knowledge of how to do so safely, securely and with trusted information and protected data.[40]

In today's world, children need to be digitally literate to fully participate in digital life, be safe online, and develop critical and analytical skills. Digital literacy[41] refers to the knowledge, skills and attitudes that allow adults and children to thrive in an increasingly global digital world, being both safe and empowered, in ways that are appropriate to their age and local cultures and contexts.[42]

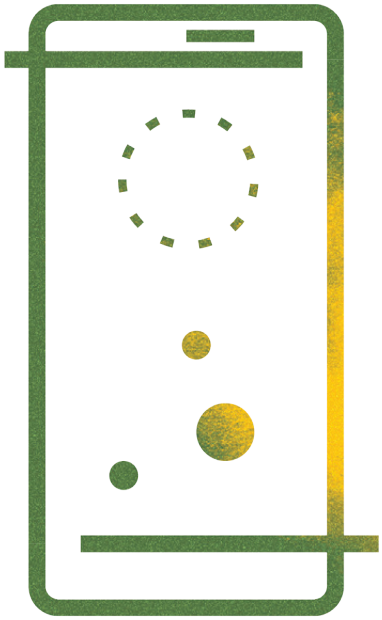
In many countries, gender inequality means that women and girls have lower levels of education and less practice in using or creating digital content.

As a result, women's and girls' digital adoption and use is frequently limited by lower levels of digital literacy, and a lack of confidence.[43] For example, the Web Foundation found that in Africa and Asia women who have some secondary education are six times more likely to be online than women with only primary education or less.[44]

Inequality in education represents a major contributor to the gender digital divide.

40 Tyers, A and Banyan Global, 2020
41 Among the main concepts used by international organizations (digital literacy, digital skills, digital competence and digital citizenship), the UNICEF Digital Literacy Scoping Paper (2019) proposes the concept of digital literacy as most suitable for UNICEF.
42 UNICEF, 2019
43 EQUALS, 2019; GSMA, 2020;
44 Web Foundation, 2016

Digital literacy



The gender gap in digital literacy means that female users are more likely to report difficulties in using digital technology, compared to males. One study found that women are 1.6 times more likely than men to report lack of skills as a barrier to internet use.[45] Several studies report that more female users report trouble reading content and require help from others to use more complex features.[46]

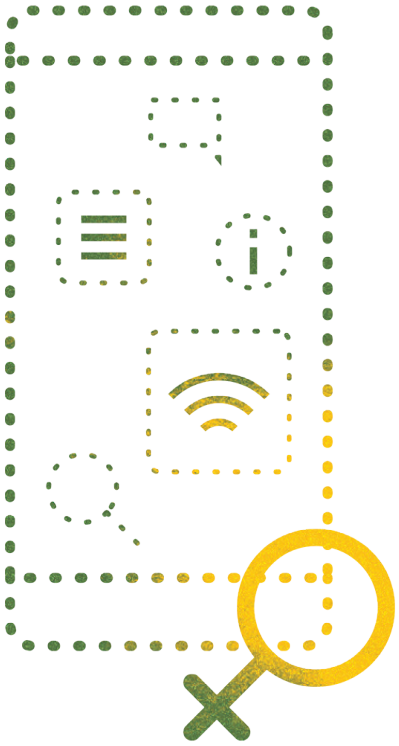
Poorly designed handsets that are not user-friendly, and content not in the local language, are also greater barriers for women and girls than for men and boys.[47]

The gender gap in digital literacy is growing as technologies become more sophisticated.[48] Digital literacy is closely linked to access.

Without regular access to digital technology, women and girls cannot develop digital literacy by familiarizing themselves with digital platforms, devices and services. Irregular access means irregular use, which prevents women and girls from learning incrementally, with fewer opportunities to learn to use digital in ways that benefit them.[49] Girl Effect reports that this is especially acute for girls: their digital literacy is hindered by irregular access, as they often do not have anyone who can help them explore digital technologies and show them new features.[50] This is particularly true of girls who share devices or who use devices and the internet in secret, due to gatekeepers and social norms that restrict their access.[51]

45 Web Foundation, 2015
46 Web Foundation, 2016; EQUALS, 2019; GSMA, 2020
47 Web Foundation, 2016; EQUALS, 2019; GSMA, 2020
48 UNESCO, 2019
49 EQUALS, 2019
50 Girl Effect and Vodafone Foundation, 2018
51 Girl Effect and Vodafone Foundation, 2018

Digital literacy

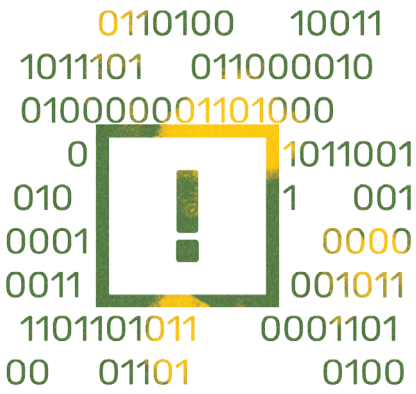


Limitations in digital literacy are also related to a lack of digital products and services designed for women and girls.

Digital products, solutions and content are often generically designed for mostly male users, with women infrequently involved in development.[52] Products generally do not consider the devices women and girls have access to, the digital platforms they use, their data access, their digital literacy levels, and the content they want to see.[53] As a result, female users often see no reason to use digital products, services or content, and they engage less with digital solutions.[54]

52 USAID, 2020
53 Girl Effect and UNICEF, 2019
54 EQUALS, 2019

Online safety



There are many risks associated with digital technology, including online harassment from strangers (such as unsolicited messages), cyber-bullying, cyberstalking, unsolicited sexual messages or images, non-consensual sharing of intimate photos, child sexual exploitation and abuse, as well as data security and privacy risks.[55] Women and girls, and people of diverse genders, are at greater risk of digital harm.

52% of young women globally have experienced some form of digital harm, and 87% of them believe the problem is getting worse.[56]

Social media in particular is perceived as an unsafe space, with 68% of online abuse of women and girls taking place on social media platforms.[57] There is also an increasing number of websites that are dedicated to sharing "revenge pornography", with users submitting images of victims (without their consent) accompanied by their personal information.[58] Most victims (90%) of "revenge-porn" are female, and many cases of suicide have been triggered by such attacks.[59]

A Web Foundation survey found 35% of young women and girls reported that the online sharing of private, intimate images and video without their consent was their top concern about using the internet.[60]

55 EIGE, 2019; EQUALS, 2019; UNICEF, 2019; Web Foundation, 2020; UNICEF, 2020
56 Web Foundation, 2020.
57 Web Foundation, 2020
58 EQUALS, 2019
59 EIGE, 2017
60 Web Foundation, 2020

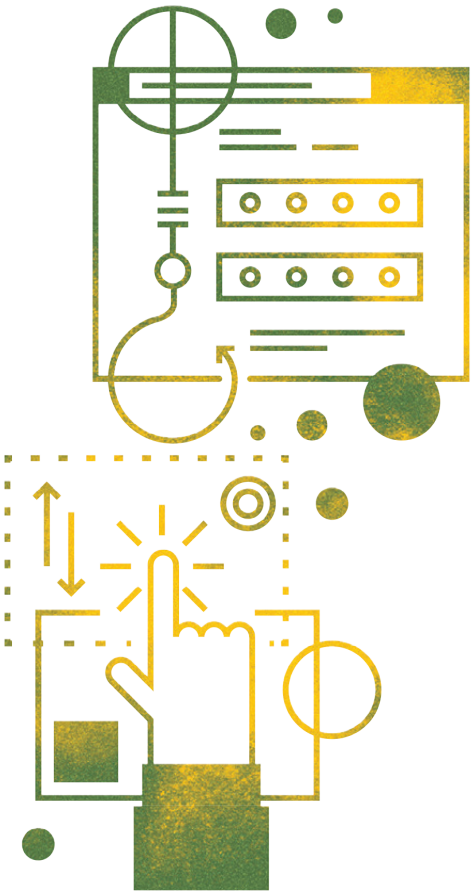
Online safety

The vast majority (86%) of images in a recent analysis of child sexual abuse materials are girls (which overall have increased by 35% in 2017 to 2016) by Internet Watch Foundation.[61] The same study also found that of the 2,082 images and videos included in the study (child sexual abuse material and online sexual abuse) of under 13 years, most were girls (96%).[62] During the Covid-19 pandemic, a massive surge in online sexual abuse and exploitation of children was observe.[63]

90% of child sexual abuse images are of girls.

Limitations in digital literacy make women and girls more vulnerable to online risks than men and boys.[64]

When they experience harmful or negative digital experiences, women and girls often report a sense of helplessness. They may have little information or knowledge about staying safe online or resources and services available to them. A study in Brazil found girls do not know how to proceed or where to turn for help when faced with online harassment or non-consensual sharing of nude photos.[65] This is also true of parents: many parents or gatekeepers have low levels of digital literacy themselves, and so their responses to their daughters' use of social media or the internet is informed predominantly by fear of the risks, rather than by educating their children (and themselves) on how to stay safe online and what prevention and counselling services might be available to them.[66]



61 IWF, 2018
62 IWF, 2018
63 Europol, 2020
64 EIGE, 2019
65 EQUALS, 2019
66 UNICEF, 2019

Online safety

There is also a lack of formalised policies and regulations to prevent digital harms and protect users.

In general, there has been little response from many governments, law enforcement authorities, and social media companies.[67] While some countries may have legal frameworks for online safeguarding and security, they are often generic and gender-blind.[68] In 74% of countries, included in the Web Foundation's Web Index, law enforcement agencies and the courts fail to take appropriate actions for digital harms. Few perpetrators are held accountable for their actions, as there is a lack of clear regulations and limited ability to prosecute offenders.[69] This results in a lack of confidence in legal systems and law enforcement to protect at risk users, who are disproportionately girls.

The Web Foundation found that 25% of young women and girls who are harassed online do nothing about it, citing reasons such as "it's not worth reporting" and "authorities don't care ."[70]

67 Womankind, 2018
68 EIGE, 2019; UNICEF, 2020
69 Broadband Commission, 2015
70 Web Foundation, 2020

Online safety

The greater risk of digital harm experienced by women and girls is underpinned by gender norms. Gatekeepers often control and monitor women and girls' access and use of digital technology due to fears that it is not safe for them to be online, or that the internet or social media can have a corrupting influence on them.[71] This links to parents' lack of digital literacy and understanding of online safety.[72] Some of these risk perceptions are internalized by women and girls themselves. A study in South Asia found that many women believe it is acceptable for their devices and internet usage to be monitored by male relatives who are perceived to have higher levels of digital literacy and skills.[73]

Adolescent girls often report digital platforms to be unsafe spaces, and that they cannot be trusted with access to these platforms.[74]

These digital risks and harms are reducing or restricting ways that women and girls use digital technology, not only because of women and girls' own concerns, but also in response to the fears of their parents, spouses, or gatekeepers who may restrict access. Women and girls often report self-policing of internet use or reduced participation in social media due to fear of harassment or other online safety concerns.[75]

Young women, and girls in particular, self-monitor as they are more likely to be criticised for online activities, such as an open profile, too many friends, too many male friends, or revealing photos.[76]

71 Tyers, A and Banyan Global, 2020; Girl Effect and Vodafone Foundation, 2018
72 UNICEF, 2020
73 Sambivisan et al, 2018
74 Girl Effect and Vodafone Foundation, 2018
75 GSMA Connected Women, 2018.
76 EIGE, 2019.

Online safety

Other impacts include being less willing to engage in public discourse and to voice their opinions, withdrawing from specific conversations, self-censoring their responses, or withdrawing from the internet or social media altogether.[77] These negative digital experiences have a negative impact on women's and girls' well-being.

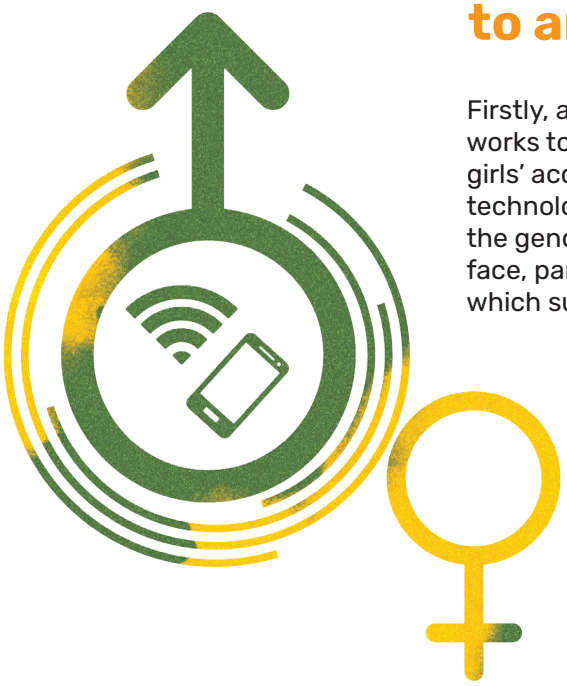
According to the Web Foundation, 59% of young women who experienced online abuse say it has affected their emotional and/or physical well-being and their relationships, reduced their confidence in using the internet, and made them less capable than others.[78]

77 Womankind, 2018; Tyers A and Banyan Global, 2020
78 Web Foundation, 2020

Closing the gender digital divide

Around the world, considerable efforts are being made to address the gender digital divide for adult women and there is a growing community of organisations and initiatives that tackle this.[79] However, the gender digital divide for adolescent girls has received much less attention: there is limited data, and few organisations work specifically to close it.[80] There is a nascent body of research, however, which suggests that for girls to become skilled users (and creators) of digital technology, intentional efforts need to be made to address gender barriers, digital literacy and girls' exposure to technology.

There is also a clear need to increase the evidence base and availability of sex-disaggregated data for adolescent girls' access to and use of digital technology.[81]



Firstly, any initiative that works to increase adolescent girls' access and use of digital technology should consider the gender barriers that girls face, particularly social norms which support men's and boys' control of devices and the internet. Digital literacy training for fathers, mothers and other family members can enable them to better understand the value of girls' digital adoption.

79 See for example, work by organisations such as GSMA, the Web Foundation, ITU, EQUALS, UN Women, as well as governmental agencies such as USAID, SIDA and GIZ.
80 Tyers A and Banyan Global, 2020
81 EQUALS, 2019; GIZ and Panoply Digital, 2017

Digital literacy training can give parents more positive perceptions of digital technology and the internet. It can help them understand how they can support girls to stay safe online, rather than view the internet as a dangerous place.

National governments and policy makers will need to ensure that any legal frameworks for online safeguarding, security and data privacy use a gender lens and offer protection for girls and women as well as boys and men. Organizations that represent women and girls can also work alongside governments and policy makers in developing these frameworks, to help ensure that girls' voices are heard.

Including girls' voices is essential when developing any digital products or services, or any digital development programmes.

Putting girls front and centre in the design process not only ensures that the products and services meet their needs and their digital realities, but it also builds girls' skills and confidence in doing so.

Building digital literacy can be transformational and is key to closing the gender digital divide for girls.

Education policies should emphasize digital skills for girls as well as boys. Digital skill training should be included in formal school curricula from primary level, so girls are reached at an early age and can build skills over time. Education policies can also support girls' study of STEM subjects in inclusive and gender-neutral environments, with learning opportunities provided both inside and outside of the classroom. Collaboration with the private sector (such as mobile operators) may help to support digital literacy development for girls, especially for girls who may be out of school, or live in more remote places.

The first step is building an evidence base to address the knowledge gap on digital realities for girls.

More research and data is needed in order to effectively design programmes and initiatives that work to close the gender digital divide for girls.

This can be done through, for example, country or regional demand-side surveys that focus on adolescents under the age of 18, or by integrating sex-disaggregated data on digital adoption for adolescents into regular national surveys, or by exploring innovative approaches to data and insights, such as big data. Context-specific research is also needed to understand girls' digital experiences, the security and safety risks they may face online, and any issues and fears in their community about girls' use of technology.

Increasing girls' digital adoption will enable them to access more digital opportunities, be it in education, employment or civic participation. We must close the digital divide to allow a new generation of girls to have access to these digital opportunities and to the increasingly digital world of work.

References

Alliance for Affordable Internet, 2015. **Affordability report 2015-16.** Available at https://a4ai.org/affordability-report/report/2015/

Alliance for Affordable Internet, 2019. **Affordability report 2019.** Available at https://a4ai.org/affordability-report/

Alliance for Affordable Internet, 2020. **Meaningful connectivity.** Available at https://a4ai.org/meaningful-connectivity/

Broadband Commission for Digital Development Working Group on Broadband and Gender, 2015. **Cyber violence against women and girls.** Available at https://www.broadbandcommission.org/Documents/reports/bb-wg-gender-discussionpaper2015-executive-summary.pdf

EIGE, 2017. **Cyberviolence against women and girls.** Available at https://eige.europa.eu/publications/cyber-violence-against-women-and-girls

EIGE, 2019. **Gender equality and youth: opportunities and risks of digitalisation.** Available at https://eige.europa.eu/publications/gender-equality-and-youth-opportunities-and-risks-digitalisation

EQUALS, 2019. **Taking stock: data and evidence on gender equality in digital access, skills, and leadership.** Available at https://www.itu.int/en/action/gender-equality/Documents/EQUALS%20Research%20Report%202019.pdf

Girl Effect and Vodafone Foundation, 2018. **Girls and mobile.** Available at https://www.girlsandmobile.org/

Girl Effect and UNICEF, 2019. **Five ways to design tech with girls, for girls.** Available at https://www.girleffect.org/stories/five-ways-design-tech-with-girls-for-girls/

GIZ and Panoply Digital, 2017. **Women's pathways to the digital sector.** Available at https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Documents/Study_Womens%20pathways%20to%20the%20digital%20sector.pdf

GSMA and LIRNEAsia, 2015. **Mobile phones, internet, and gender in Myanmar.** Available at https://www.gsma.com/mobilefordevelopment/resources/mobile-phones-internet-and-gender-in-myanmar/

GSMA Connected Women, 2015. **Bridging the gender gap: mobile access and usage in low- and middle-income countries.** Available at https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/02/Connected-Women-Gender-Gap.pdf

GSMA Connected Women, 2018. **A framework to understand women's mobile-related safety concerns in low- and middle-income countries.** Available at https://www.gsma.com/mobilefordevelopment/resources/a-framework-to-understand-womens-mobile-related-safety-concerns-in-low-and-middle-income-countries/

GSMA Connected Women, 2019. **The mobile gender gap report 2019.** Available at https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/03/GSMA-Connected-Women-The-Mobile-Gender-Gap-Report-2019.pdf

GSMA Connected Women, 2020. **The mobile gender gap report 2020.** Available at https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/02/GSMA-The-Mobile-Gender-Gap-Report-2020.pdf

The Guardian, 2020. **Internet is not working for women and girls', says Berners-Lee.** Available at https://www.theguardian.com/global/2020/mar/12/internet-not-working-women-girls-tim-berners-lee

Innocenti, 2019. **Is there a ladder for children's online participation?** Available at https://www.unicef-irc.org/publications/pdf/IRB_2019-02%2013-2-19.pdf

Internet Watch Foundation, 2018. **Annual report 2017.** Available at https://www.iwf.org.uk/news/iwf-global-figures-show-online-child-sexual-abuse-imagery-up-by-a-third

ITU, 2019. **Facts and figures.** Available at https://itu.foleon.com/itu/measuring-digital-development/home/

LIRNEasia, 2019. **After access Asia report 3.0.** Available at https://lirneasia.net/2019/05/afteraccess-asia-report3/

OECD, 2018. **Bridging the digital gender divide.** Available at https://www.oecd.org/going-digital/bridging-the-digital-gender-divide.pdf?mc_cid=9cbd34bb84&mc_eid=86778a9e72

Plan, 2020: **Free to be online? Girls and young women's experiences of online harassment.** Available at https://plan-international.org/publications/freetobeonline

Plan, 2020. **Bridging the gender digital divide.** Available at https://plan-international.org/education/bridging-the-digital-divide

Research ICT Africa, 2012. **Lifting the veil on ICT gender indicators in Africa.** Available at https://researchictafrica.net/2016/06/07/lifting-the-veil-on-ict-gender-indicators-in-africa/

Research ICT Africa, 2018. **After access Africa report 2018.** Available at https://researchictafrica.net/2019/05/16/after-access-africa-comparative-report/

Sambasivan, Checkley, Batool, Ahmed, Nemer, Gaytán-Lugo, Matthews, Consolvo, and Churchill, 2018. **Privacy is not for me, it's for those rich women: performative privacy practices on mobile phones by women in South Asia.** Available at https://www.usenix.org/conference/soups2018/presentation/sambasivan

Stoilova, M., Livingstone, S., and Khazbak, R. 2021. **Investigating risks and opportunities for children in a digital world: a rapid review of the evidence on children's internet use and outcomes.** Available at https://www.unicef-irc.org/publications/1183-investigating-risks-and-opportunities-for-children-in-a-digital-world.html

The Web Foundation, 2015. **Women's rights online.** Available at http://webfoundation.org/docs/2015/10/womens-rights-online_Report.pdf

The Web Foundation, 2016. **Women's rights online digital gender gap audit.** Available at: http://webfoundation.org/about/research/digital-gender-gap-audit/

The Web Foundation, 2020. **The online crisis facing women and girls threatens global progress on gender equality.** Available at https://webfoundation.org/2020/03/the-online-crisis-facing-women-and-girls-threatens-global-progress-on-gender-equality/

UNESCO, 2019. **I'd blush if I could - closing gender divides in digital skills through education.** Available at https://en.unesco.org/Id-blush-if-I-could

UNICEF, 2017. **State of the world's children 2017: children in a digital world.** Available at https://www.unicef.org/reports/state-worlds-children-2017

UNICEF, 2019. **Digital literacy for children: exploring definitions and frameworks (Scoping Paper No. 01).** Available at https://www.ikanos.eus/wp-content/uploads/2019/09/UNICEF-Digital-Literacy-Scoping-Paper-FINAL-27-Aug-2019.pdf

UNICEF, 2019a. **What works to prevent online and offline child sexual exploitation and abuse?** Available at https://www.unicef.org/eap/media/4706/file/What%20works.pdf

UNICEF, 2019b. **Growing up in a connected world.** Available at https://www.unicef-irc.org/publications/1060-growing-up-in-a-connected-world.html

UNICEF, 2020. **Our lives online. Use of social media by children and adolescents in East Asia - opportunities, risks and harms.** Available at https://www.unicef.org/eap/media/4691/file/Our%20lives%20online.pdf

UNICEF East Asia Pacific, 2019. **Gender counts. East and Southeast Asia.** Available at https://www.unicef.org/eap/reports/gender-counts-east-and-southeast-asia

United Nations, 2018. **United Nations E-Government Survey 2018: gearing e-government to support transformation towards sustainable and resilient societies.** Available at https://www.unescap.org/sites/default/d8files/knowledge-products/E-Government%20Survey%202018_FINAL.pdf

USAID, 2017. **Gender digital divide online course.** Available at https://www.panoplydigital.com/gender-and-ict-online-course

Tyers A, and Banyan Global, 2020. **USAID Gender digital divide desk review report.** Available at https://www.marketlinks.org/weege-wiki/gdd-desk-review-report

Vargo, Zhu, Benwell and Yang, 2020. **Digital technology use during COVID 19 pandemic: a rapid review.** Available at https://onlinelibrary.wiley.com/doi/10.1002/hbe2.242

Womankind, 2018. **Breaking the silence: ending online violence and abuse against women's rights activists.** Available at https://www.womankind.org.uk/policy-and-campaigns/resources/?topic=29544c1e-0c86-63e3-9143-ff00009d7e70

World Economic Forum, 2016. **The Fourth Industrial Revolution: what it means, how to respond.** Available at https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/

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