Normative frameworks on gender perspectives in technology and innovation

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November 2022

The views expressed in this paper are based on an analysis of intergovernmental resolutions and outcomes and do not necessarily represent the views of the United Nations. This paper provides an overview of a limited number of relevant intergovernmental resolutions and outcomes.

ACRONYMS

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<td>AI</td>
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Introduction

On 6-17 March 2023, the Commission on the Status of Women (CSW) will consider the priority theme “Innovation and technological change, and education in the digital age for achieving gender equality and the empowerment of all women and girls” at its 67th session. The agreed conclusions that are expected to be adopted at this session provide an opportunity to strengthen the integration of a gender perspective in the global normative frameworks on technology and innovation. Strong coverage of the links between gender equality and technology by the Commission can influence relevant resolutions and outcomes of other intergovernmental bodies and lead to greater attention to the topic from Member States and other stakeholders at all levels.

The Beijing Declaration and Platform for Action (1995) addressed the role of technology across various critical areas of concern and recognized that it is essential that women not only benefit from technology, but also participate in the process from design to application, monitoring and evaluation. The Platform for Action frames technology issues from an education, employment and communication perspective. This focus is no longer reflective of the breadth of gender equality challenges and opportunities that the technological evolution has triggered since 1995. The twenty-fifth anniversary review and appraisal of its implementation (E/CN.6/2020/3) recognizes some of these gaps and calls for States to set priorities for and fund technological development and innovation in a way that advances gender equality, promotes inclusion and respect, enables collective action and contributes to a sustainable environment. The review further urges States to ensure that all women and girls benefit equally from technological advancements by closing the gender digital divide and enabling women’s equal participation in the design of technology, and to implement laws, policies and regulations to combat the risks inherent in technology for gender equality, including online violence, abuse and harassment, threats to privacy rights and bias in artificial intelligence and robotics.

Moreover, in the Political Declaration on the occasion of the 25th anniversary of the Fourth World Conference on Women, Member States pledged to harness “the potential of technology and innovation to improve women’s and girls’ lives and to close the development divide and the digital divide, including the gender digital divide, as well as addressing the risks and challenges emerging from the use of technologies.”

Progress in key intergovernmental bodies

Following the Fourth World Conference on Women, the Commission on the Status of Women has twice adopted agreed conclusions in relation to gender equality in the context of technology. In the agreed conclusions of its 47th session (2003), the Commission recommended action related to women in the media and the impact and use of information and communications technologies (ICTs) for the empowerment of women, including in relation to fostering women’s access to ICTs and addressing ICT- and media-based violence against women. In the agreed conclusions of its 55th session (2011), the Commission recommended action related to women’s and girls’ access to and participation in technology, with a focus on education and training in the field of science and technology and on women in science and technology employment.

Aside from these outcomes, the number of references related to technology in agreed conclusions of other sessions were minimal (ranging from approximately 0-11 references per session) prior to 2017. The 61st session (2017), where the Commission considered the priority theme on women’s economic empowerment in the changing world of work, saw the number of references related to technology nearly triple (to approximately 30).

Since 2017, the Commission has increasingly raised issues of technology and innovation. This has included calls to mainstream a gender perspective in the conceptualization, development and implementation of digital technologies and related policies and promote the participation of women to address violence and discrimination against women and girls.
in digital contexts; promote women’s and girls’ equal access to technologies and digital skills and bridge the gender digital divide; address the challenges emerging from the use of technology and the growing impact of violence against women and girls in digital contexts; and diversify women’s educational and occupational choices in emerging fields, such as science, technology, engineering and mathematics (STEM), ICTs and technical development. Moreover, since the onset of the coronavirus disease (COVID-19) pandemic, the agreed conclusions have included more references to digital technologies and competencies as well as to cyberbullying and cyberstalking.

The linkages between access to and the use of technology and sustainable development are made in the 2030 Agenda for Sustainable Development, including across the Sustainable Development Goals (SDGs). In particular, the SDGs include targets on access to appropriate new technologies (1.4), on using ICT to promote the empowerment of women (5.b) and on ICT skills (4.4/4.5). However, other key targets and indicators related to technology lack a gender perspective. For example, the targets of SDG 9 (industry/infrastructure) and the technology-related SDG 17 targets (targets 17.6, 17.7, 17.8) all lack a gender perspective and do not reflect the need to collect disaggregated data for the associated indicators.

Efforts to mainstream a gender perspective in legislation, policies and programmes on technology and innovation have been advanced in the General Assembly (A/RES/76/213), Economic and Social Council (ECOSOC) (E/RES/2021/10; E/RES/2021/29) and Human Rights Council (HRC) (A/HRC/RES/38/5; A/HRC/RES/47/16; A/HRC/RES/50/18). In correlation with the trend of greater attention to the linkages between gender equality and technology, seen in the agreed conclusions of the Commission since 2017, the number of references to gender issues and women doubled around the same time in the ECOSOC annual resolution (July 2017) and the General Assembly biennial resolution (December 2017) on science, technology and innovation (STI).

Women farmers receiving training in drone piloting, Senegal.
Photo: UN Women/Yulia Panevina
Core issues of gender equality and technology

The areas where gender perspectives are most often integrated relate to the digital divide; access to digital technologies, ICTs and the Internet; digital literacy/skills in education and employment; online safety; artificial intelligence (AI); and technology for agriculture and climate resilience. These issues have been covered widely by the General Assembly, ECOSOC, Human Rights Council, Committee on the Elimination of Discrimination against Women and other intergovernmental bodies. The Commission may wish to consider the language used by these bodies in the consideration of the priority theme.

In contrast, key areas where the integration of a gender perspective in normative frameworks could be strengthened relate to the design and monitoring of technology, including women’s participation in technological development and gender impact analysis of technology. For example, resolutions will discuss the development of technology without including a gender lens, such as the need for a gender perspective or the participation of women. If they do mention gender issues, the references will often be brief and lack specific recommendations for gender mainstreaming. Similarly, when discussing impacts of technology, there is a lack of concrete actions or strategies to assess gender impacts and to collect relevant disaggregated data to conduct an adequate gender analysis. Some areas that lack a gender perspective are in discussing health technology, international security and cybercrime, and business and human rights, among others.

Moreover, intergovernmental resolutions and outcomes could be strengthened with greater recognition of the implications of intersectionality on access, use, design and monitoring of technology. Women and girls who face multiple and intersecting forms of discrimination (including poor women and girls, women and girls with disabilities, women and girls in rural or remote areas, women and girls in minority groups, elderly women, illiterate women and girls, migrant or refugee women and girls, Indigenous women and girls) experience compounded barriers to technology, especially those who live in developing countries.

This is not a comprehensive list of gaps, as not all resolutions were analyzed. However, they include important areas where a gender perspective is necessary to advance gender equality in relevant technological sectors. The 67th session provides the Commission with the opportunity to advance commitments in these areas, thereby providing impetus to other intergovernmental bodies to do the same.

Gender digital divide

Closing the gender digital divide remains a key priority across intergovernmental bodies. Digital divides persist across income groups, age groups, geography and gender, including between rural-urban and youth-older persons, as well as between and within countries and regions and between developed and developing countries. These have been aggravated by the COVID-19 pandemic. Improving the quality of access is also important, “using a multidimensional approach that includes speed, stability, affordability, language, training, capacity-building, local content and accessibility for persons with disabilities” (A/RES/76/189; E/RES/2021/10).

Actions to close the gender digital divide should aim at “eliminating barriers to women’s full, equal and effective participation both offline and in digital contexts, increasing women’s and girls’ access to digital technologies, promoting equal, safe and affordable access to information and communications technologies and to the Internet, enhancing women’s and girls’ digital literacy and women’s entrepreneurship, improving digital cooperation and harnessing the potential

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1 See General Assembly resolutions on role of science and technology in the context of international security and disarmament (A/RES/76/24) and on promoting technical assistance and capacity-building to strengthen national measures and international cooperation to combat cybercrime, including information-sharing (A/RES/74/173); ECOSOC resolution on open-source technologies for sustainable development (E/RES/2021/30); HRC resolution on business and human rights: improving accountability and access to remedy (A/HRC/RES/38/1).


3 E/RES/2021/28; A/RES/75/316; CSW65 agreed conclusions
of rapid technological change to improve the lives of women and girls, promoting connectivity and socioeconomic prosperity, and addressing any potential negative impacts of digital technologies on gender equality and the empowerment of women and girls.4 Similar language is contained in CSW agreed conclusions. It is recommended to understand “the context of the divide through sex-disaggregated data, integrating a gender perspective into strategies, policies, plans and budgets, addressing barriers, including access, affordability, safety, digital skills and relevance, and collaboration and sharing good practices”.

The lack of or limited access of women and girls with disabilities to digital technologies, including assistive technologies, further exacerbate the digital divide. The particular importance of accessibility for women and girls with disabilities is outlined in HRC resolution 47/15. The lack of consideration given to gender and disability aspects in policies relating to information and communications technologies and systems is recognized by the Committee on the Rights of Persons with Disabilities in its General comment No. 3 on women and girls with disabilities.

Education and economic empowerment

The Committee on the Elimination of Discrimination against Women, in its General recommendation No. 36 on the right of girls and women to education, recognizes the role of ICTs in distance and open learning settings for girls and women with limited access to conventional forms of education and training. The Committee calls on States Parties to institute measures to increase the participation of women and girls in STEM programmes at all levels of education and to develop national ICT plans or strategies with specific targets for achieving gender equality in access to ICTs in schools and tertiary-level institutions, backed by specific programmes and budgets, including for disaggregated data collection.

In order to address/mitigate the impact of the COVID-19 pandemic on women’s and girls’ education – such as their risk of dropping out and not returning to school, thereby increasing their vulnerability to poverty, child, early and forced marriage and early pregnancy – the General Assembly calls on Member States to ensure that girls are protected and supported in returning to school, ensure the availability of learning materials and remote learning platforms during the pandemic and to bridge the digital divide to provide distance learning opportunities (A/RES/75/157).

The Commission on the Status of Women underscores that rapid technological change, including new and emerging digital technologies, has an impact on women’s employment opportunities. It therefore calls on Member States to increase women’s access to digital technologies to enhance their productivity and mobility in the labour market and to eliminate occupational segregation by addressing structural barriers, gender stereotypes and negative social norms. The Commission has also called on Member States to mainstream a gender perspective into science and technology, academia, research institutions and research funding agencies; and facilitate women’s access to and opportunities in emerging fields, such as STEM, ICT and technological development, by expanding the scope of education, reskilling and training, particularly in developing countries.

Member States are also invited “to support the digital entrepreneurship of women, including in e-commerce, including for micro-, small and medium-sized enterprises, to develop local solutions and relevant content and promote innovation and decent job creation” (E/RES/2021/10).

Online safety and privacy

Whereas the General Assembly6 and ECOSOC have focused more on the economic aspects of digitalization, the Human Rights Council and the Committee on the Elimination of Discrimination against Women, notably

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4 A/RES/73/316 on impact of rapid technological change on the achievement of the Sustainable Development Goals and targets
5 A/RES/73/218
6 The General Assembly recently adopted A/C.3/77/L.21/Rev.1 on intensification of efforts to prevent and eliminate all forms of violence against women and girls: gender stereotypes and negative social norms, in November 2022. The resolution includes greater attention to online and technology-facilitated violence against women and girls than previous iterations.
in its general recommendations, have further given particular attention to the online safety of women and girls. The Council has a specific resolution 38/5 (2018) on preventing and responding to violence against women and girls in digital contexts. All forms of discrimination, violence, intimidation or threats, harassment, stalking, bullying, arbitrary or unlawful surveillance and tracking, trafficking in persons, extortion, censorship and hacking of accounts or devices are recognized as a growing global concern (A/HRC/RES/38/5). In its resolution 68/181, the General Assembly expresses concern for similar technology-related violations and abuses against women human rights defenders.7

Additionally, the Council has found that these violations and abuses of their rights online prevent women’s and girls’ full enjoyment of their human rights and fundamental freedoms (A/HRC/RES/38/7), including the right to freedom of opinion and expression (A/HRC/RES/50/15), the rights to freedom of peaceful assembly and of association (A/HRC/RES/50/17), and the right to privacy (A/HRC/RES/48/4). This hinders their full, equal and effective participation in economic, social, cultural and political affairs, and may deter their use of ICTs, thus widening gender inequalities.

The Council has recognized the particular gender-specific effects of violations and abuses of the right to privacy on women and girls. Its resolution on the right to privacy in the digital age (48/4) and the corresponding General Assembly resolution (A/RES/75/176) both recognize the importance of the right to privacy to prevent gender-based violence and call for implementing and strengthening gender-responsive policies on privacy. The Council further recognizes that encryption and anonymity can contribute to the full enjoyment of human rights and empower women and girls to access information and express ideas. Member States are called upon to develop or maintain preventative measures and remedies as well as strengthen gender-responsive policies that promote and protect the right to privacy.

To prevent and eliminate gender-based violence in digital contexts and combat impunity, the Council has called on Member States to enact and enforce necessary legislative and other measures, mainstream a gender perspective in criminal justice systems and promote joint initiatives with business enterprises, including social media and digital technology companies, as well as self-regulatory mechanisms.8

The Committee on the Elimination of Discrimination against Women, in its General recommendation No. 36 (2017), includes recommendations to develop policies and channels to protect girls against cyberbullying. The Human Right Council also recently adopted a resolution on countering cyberbullying (51/10) in October 2022.

The Committee also recognizes linkages of digital technologies and their impacts with harmful practices9, access to justice10 and trafficking11. The Committee on the Rights of the Child, in its General comment No. 25 (2021) on children’s rights in relation to the digital environment, emphasizes the protection of children against technology-facilitated and online sexual exploitation and abuse, and includes calls for data protection legislation and privacy-by-design and safety-by-design in the digital services and products that children use, as well as the decriminalization of self-generated sexual content.

The growing prevalence of violence against women and girls in digital context, especially on social media, has also received increasing attention from the Commission. It recognizes that “the lack of preventive measures and remedies underline the need for action by Member States in partnership with other stakeholders to prevent and respond to violence and harassment online and offline and other negative effects of technological development. It recalls that emerging forms of violence, such as cyberstalking, cyberbullying and privacy violations,

7 A/HRC/RES/68/181: “Aware that information-technology-related violations, abuses, discrimination and violence against women, including women human rights defenders, such as online harassment, cyberstalking, violation of privacy, censorship and the hacking of e-mail accounts, mobile phones and other electronic devices, with a view to discrediting them and/or inciting other violations and abuses against them, are a growing concern and can be a manifestation of systemic gender-based discrimination, requiring effective responses compliant with human rights.”
8 See Human Rights Council resolutions 38/5, 41/17, 47/15 as well as General recommendation No. 35 on gender-based violence against women, updating general recommendation No. 19, of the Committee on the Elimination of Discrimination against Women.
9 Joint general recommendation/general comment No. 31 of CEDAW and No. 18 of the Committee on the Rights of the Child
10 General recommendation No. 33
11 General recommendation No. 38
are affecting a high percentage of women and girls and compromising, inter alia, their health, their emotional, psychological and physical well-being and their safety.”

Recommendations from previous agreed conclusions include establishing comprehensive multisectoral services, programmes and responses with the support of all available technologies that are adequately resourced; building the capacity of public officials in executive, legislative and judicial branches of government to adopt enhanced prevention measures; as well as combatting the growing sexualization and use of pornography in media content as well as ICT- and media-based violence against women, including criminal misuse of ICT for sexual harassment, sexual exploitation and trafficking in women and girls.

Artificial intelligence

The Commission "recognizes the potential benefits of new forms of information and communications technology and artificial intelligence that enable the participation of women and girls in public life, while more attention needs to be paid to the impacts of such technology on all women and girls. It also recognizes that digital platforms can become public spaces in which new strategies to influence policy and politics are forged and where women and girls can exercise their right to participate fully and effectively in public life. It notes that new technological developments can also perpetuate existing patterns of inequality and discrimination, including in the algorithms used in artificial intelligence-based solutions." The Commission has yet to recommend specific action related to AI.

Member States are called upon to create monitoring and accountability mechanisms to ensure implementation of gender-sensitive policies and regulations, as well as analyze the gender impact of such policies in consultation and collaboration with women digital technology specialists, civil society organizations and gender equality advocates (A/HRC/RES/38/5).

UNESCO’s General Conference also recognizes the wide impacts of AI technologies on gender equality, in its Recommendation on the Ethics of Artificial Intelligence, forty-first session (2021). It calls on Member States to eliminate gender gaps in the AI field (e.g., wage, representation, education, unpaid work, and digital and AI access, adoption, usage and affordability gaps), redress gender stereotyping and discriminatory biases in AI systems, encourage women’s entrepreneurship and participation in all stages of AI system life cycle and ensure gender balance in research and management positions. Member States should have dedicated funds from their public budgets to finance gender-responsive schemes, ensure that national digital policies include a gender action plan, and develop relevant policies targeted at supporting girls and women to make sure they are not left out of the digital economy powered by AI.

Technology for agriculture and climate resilience

In recognition of the disproportionate impacts of the digital divide on rural and Indigenous women and girls, the issues of women’s equal access to agricultural technology and technology to build climate resilience are included in several outcomes and resolutions.

According to General recommendation No. 34 of the Committee on the Elimination of Discrimination against Women, “States Parties should ensure that labour-saving and environmentally sound technology, including agricultural, irrigation and water-harvesting...
technology, and technology to reduce the burden of unpaid domestic and productive work are available and accessible to rural women and create enabling environments that improve their access to technology, including ICT, in rural areas. Rural women should be consulted in the development of such technology and their access to such innovative technological solutions should be promoted.”

To build climate resilience, the Commission calls on Member States to take “concrete measures to promote equal access for all women and girls to digital training, capacity-building, forecasting and preparedness, including early warning systems, through equal access to information and communications technologies, mobile devices and the Internet, so as to promote their empowerment and digital literacy and enable them to develop the skills needed to better cope with the adverse effects of climate change, environmental degradation and disasters, in particular for poor women, women in rural and remote areas, and women farmers and producers.”

In its General recommendation No. 39, the Committee on the Elimination of Discrimination against Women emphasizes Indigenous Women’s and Girls’ access to digital technologies and STEM. It further calls for ensuring their access to the benefits of scientific progress and technological innovation to be able to achieve food and water security, and compensation for their contributions and technical knowledge, as well as recommends the study of the relationship between technology and culture, as digital tools can be important to transmit and preserve Indigenous languages and culture.

Innovation

Not much is said by the Commission or other intergovernmental bodies on the gender perspectives in innovation. The term is most often included as part of the phrase ‘science, technology and innovation’. Existing innovation-specific resolutions draw attention to the need for innovation approaches to respond to the needs of poor, grassroots and marginalized communities in developing and developed countries, and to involve them in innovation processes. Inclusiveness in innovation is encouraged, especially with regard to local communities, women and youth, to ensure that the scaling and diffusion of new technologies are inclusive and do not create further divides. Increasing availability of data to support national innovation systems and empirical research on innovation and development to support the design and implementation of innovation strategies, as well as local innovation, is also supported.

Assembly resolution 76/213 calls on Member States “to conduct assessments, including of gender-sensitive aspects, of national innovation systems, including digital ecosystems, drawing from foresight exercises, at regular intervals, to identify weaknesses in the systems and make effective policy interventions to strengthen their weaker components, and share outcomes with other Member States, and, on a voluntary basis, to provide financial support and expertise towards the implementation of the framework for national science, technology and innovation policy reviews in interested developing countries.”

Women’s participation

Member States have committed to ensure women’s full and equal participation in decision-making processes related to ICTs, as well as in the conceptualization, development and implementation of digital technologies (A/HRC/RES/38/5). The Commission calls on Member States to enhance women’s and, as appropriate, girls’ participation as users, content creators, employees, entrepreneurs, innovators and leaders, and encourages regulatory bodies, where they exist, to promote full participation of women in the ownership, control and management in the ICT and media sectors.
Resolution 38/5 of the Human Rights Council contains important language around assessing the gender impacts of digital policies, calling on States to prioritize “the integration of gender perspectives, and ensuring the early, full and effective participation of women and girls in the development and implementation of national policies, legislation, programmes, projects, strategies and regulatory and technical instruments in the area of digital technologies and creating monitoring and accountability mechanisms to ensure implementation of gender-sensitive policies and regulations, as well as analysing the gender impact of such policies in consultation and collaboration with women digital technology specialists, civil society organizations and gender equality advocates”.

The important role of digital technologies for women and girls to exercise all human rights and in women's full, equal and effective participation in political, economic, cultural and social life is widely recognized. In its General recommendation No. 36 on the right of girls and women to education, the Committee on the Elimination of Discrimination against Women calls for improving and broadening women’s access to ICTs, including e-government tools, to enable political participation and to promote engagement in broader democratic processes. Both the General Assembly and Human Rights Council, in resolutions A/RES/76/227 and A/HRC/RES/49/21, respectively, express concern “that online disinformation campaigns are increasingly being used to deter women from participating in the public sphere, and that women journalists, women politicians, women human rights defenders and advocates for women's rights are targeted in particular”.

**Health**

The CSW63 agreed conclusions call for investments in public health-care systems and facilities for women and girls, including health technologies, the systematic utilization of new technologies and integrated health information systems, as well as addressing health-care worker shortages in rural and remote areas by utilizing digital technologies for healthcare providers and patients.

The Human Rights Council “recognizes that the right of women and girls to the enjoyment of the highest attainable standard of physical and mental health includes having access to the information, education and means to exercise this right, both online and offline.” It also “recognizes that digital technologies can offer access to information that enables women and girls to make informed and autonomous decisions in matters regarding their own bodies, lives and health, including their sexual and reproductive health and reproductive rights.” (A/HRC/RES/38/5)

The Committee on the Rights of the Child calls on States Parties to ensure that digital educational resources do not perpetuate gender stereotypes and that curricula include guidance on finding trusted sources and identifying misinformation, including on sexual and reproductive health issues.

**Private sector**

Comprehensive regulatory frameworks and legislation over digital technologies and services, as well as multistakeholder efforts and initiatives, are crucial in the provision of and access to affordable and reliable connectivity and ICTs to close the gender digital divide and in the protection and respect of women’s and girls’ rights online and offline. The private sector has an important role and responsibility in expanding and improving digital infrastructure, products and services and in ensuring the safety and privacy of women and girls in the digital space.

Digital technology companies, including Internet service providers and digital platforms, are encouraged “to strengthen or adopt positive measures, including internal policies, to promote gender equality in
the design, implementation and use of digital technologies\textsuperscript{27} and “to respect standards and implement transparent and accessible reporting mechanisms”\textsuperscript{28}. Businesses are further encouraged to protect the private data of women and girls, create processes for reporting violence and develop policies to protect them from violence in digital contexts.\textsuperscript{29}

States are called upon “to provide effective and up-to-date guidance to business enterprises on how to respect human rights by advising on appropriate methods, including human rights due diligence, and on how to consider effectively issues of gender, vulnerability and/or marginalization”\textsuperscript{30}. The Human Rights Council further calls upon States to collaborate with civil society actors, the private sector, social media companies, digital technology companies and other relevant actors, as part of their efforts to develop targeted and accessible responses, programmes and policies\textsuperscript{31}; to enact and enforce the necessary legislative or other measures\textsuperscript{32}; and to collect, share, positively recognize and widely publicize good practices\textsuperscript{33}.

Business actors are urged to assist the States in which they operate in their efforts to fully realize women’s right to freedom from violence.\textsuperscript{34} The Committee on the Elimination of Discrimination against Women calls for social media and messaging platform companies to take responsibility for exposing women and girls to trafficking and sexual exploitation through use of their services and put in place controls to mitigate risks and the appropriate governance structure and procedures to respond. It also calls for digital technology companies to increase transparency, including around the use of electronic currencies.\textsuperscript{35}

The role of civil society is also crucial in the monitoring and evaluation of digital policies. States are called upon to analyze the gender impacts of digital policies in consultation and collaboration with women digital technology specialists, civil society organizations and gender equality advocates.\textsuperscript{36}

Recognizing the lack of women’s representation at top management positions, boards of directors, or research teams in the AI field, the Recommendation on the Ethics of Artificial Intelligence calls on Member States to “promote policies that aim at a balanced gender participation in AI research in academia and gender representation on digital and AI companies’ top management positions, boards of directors and research teams”.

Alignment with other processes

The upcoming CSW67 session provides an opportunity to discuss emerging issues – such as AI impacts, FemTech, disinformation, surveillance and censorship – as well as the significance of intersectionality in relation to the access, use, design and monitoring of digital technologies. It can also promote further alignment between the agreed conclusions of the Commission and other intergovernmental outcomes, including resolutions of the General Assembly, ECOSOC and the Human Rights Council and recommendations of the Committee on the Elimination of Discrimination against Women and other treaty bodies. Greater collaboration between the Commission and other functional commissions of ECOSOC, as well as with existing multi-stakeholder processes, will also strengthen strategies to advance gender equality in the context of technology and innovation.

In Our Common Agenda, the Secretary-General proposes a Global Digital Compact to be agreed at the Summit of the Future in September 2024 through a technology track involving all stakeholders. The

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\textsuperscript{27} A/HRC/RES/38/5
\textsuperscript{28} CSW65 agreed conclusions
\textsuperscript{29} A/HRC/RES/38/5; A/HRC/RES/48/4; A/RES/75/176
\textsuperscript{30} A/RES/75/176; A/HRC/RES/48/4
\textsuperscript{31} A/HRC/RES/41/17
\textsuperscript{32} A/HRC/RES/38/5
\textsuperscript{33} Ibid.
\textsuperscript{34} CEDAW General recommendation No. 35
\textsuperscript{35} General Recommendation No. 38
\textsuperscript{36} A/HRC/RES/38/5
process on the Global Digital Compact presents an important opportunity for UN Women to integrate the key recommendations from the agreed conclusions of CSW67 into the document.

The Commission on Science and Technology for Development (CSTD) is a subsidiary body of ECOSOC and provides advice on STI issues, including in the preparation of the resolutions of ECOSOC and the General Assembly on STI. Since 2006, the CSTD has been mandated to serve as the focal point in the system-wide follow-up to the outcomes of the World Summit on the Information Society (WSIS). ECOSOC decision 2021/254 of 22 July 2021 extended, until 2025, the mandate of the Gender Advisory Board of the Commission. ECOSOC resolution 2022/16 calls for the CSTD and the CSW to strengthen and deepen collaboration, including sharing good practices and lessons learned in integrating a gender perspective into science, technology and innovation policymaking and implementation, and, in this context, to follow up on the work done by the Commission on Science and Technology for Development at the workshop on applying a gender lens to science, technology and innovation, held in Vienna on 18 January 2019.

The 2030 Agenda for Sustainable Development announced the launch of the Technology Facilitation Mechanism (TFM) to support the implementation of the SDGs and facilitate multi-stakeholder collaboration and partnerships. The components of the TFM include: 1) IATT, the UN Interagency Task Team on Science, Technology and Innovation for the SDGs; 2) 10-Member group, a Group of High-level Representatives of Scientific Community, Private Sector and Civil Society appointed by the Secretary-General; 3) STI Forum (see next paragraph); and 4) 2030 Connect, an online platform as a gateway for information on existing STI initiatives, mechanisms and programs.

The President of ECOSOC convenes annually the Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs (STI Forum), in May, to discuss STI cooperation around thematic areas for the implementation of the Sustainable Development Goals. The forum is co-chaired by two Member States and results in a summary of discussions. Through the summary of its STI Forum, the TFM provides formal mandated input in support of the HLPF’s SDG review and its mandated science-policy function.

The High-Level Political Forum on sustainable development, the platform for the global review of the 2030 Agenda for Sustainable Development and the SDGs, includes a meeting on STI issues, including the summary of the STI Forum.

The Action Coalition on Technology and Innovation for Gender Equality is one of the Six Action Coalitions that were launched during the Generation Equality Forum in 2021 to mark the 25th anniversary of the Beijing Declaration and Platform for Action. The Action Coalition is a multi-stakeholder initiative, bringing together actors from civil society, governments, private sector, philanthropy, youth groups and inter-governmental agencies to catalyze collective action and drive increased public and private investments and commitments to leverage technology and innovation to advance gender equality and the empowerment of women and girls. The Coalition developed a 5-year Global Acceleration Plan and recently issued a joint statement to place gender equality at the heart of the Global Digital Compact.

Other ongoing UN processes, initiatives, and events include:

• UN Secretary-General Roadmap for Digital Cooperation (A/74/821) (2020)

• Office of the Secretary General’s Envoy on Technology

• World Summit on the Information Society (WSIS) Forum

• Broadband Commission

• Internet Governance Forum (IGF)

• Partner2Connect Digital Coalition

• UNESCO AI ethics work

• Business and Human Rights in Technology Project (B-Tech Project)

• EQUALS Global Partnership

• United Nations Group for the Information Society (UNGIS)
Appendix I

Business and Human Rights

The UN Guiding Principles on Business and Human Rights (2012) reflect and build on the three-pillar structure of the “Protect, Respect and Remedy” framework, comprising of 31 principles. Per the Guiding Principles, States should provide appropriate guidance to businesses on “how to consider effectively issues of gender, vulnerability and/or marginalization,” as well as adequate assistance to business enterprises operating in conflict affected areas “to assess and address the heightened risks of abuses, paying special attention to both gender-based and sexual violence”. Furthermore, business enterprises “should make particular efforts to track the effectiveness of their responses to impacts on individuals from groups or populations that may be at heightened risk of vulnerability or marginalization... using gender-disaggregated data where relevant”.

To give further consideration to the differentiated impacts of business-related human rights abuses on women, the UN Working Group on Business and Human Rights issued additional guidance on the Gender dimensions of the Guiding Principles on Business and Human Rights (A/HRC/41/43) in 2019. The report achieves three results: 1) provides a brief overview of discrimination and differentiated impacts experienced by women and girls in the context of business activities, and analyses selected existing gender equality standards; 2) develops a three-step gender framework – i.e., gender responsive assessment, gender transformative measures, and gender transformative remedies – that States, business enterprises and other stakeholders could use to achieve substantive gender equality; and 3) uses this gender framework to provide specific guidance for each of the 31 principles of the UN Guiding Principles.

Women farmers receiving training in drone piloting, Senegal. Photo: UN Women/Yulia Panevina
Appendix II

This paper reviews a select number of relevant resolutions and outcomes, due to limited time and capacity, and is not meant to represent a complete overview. The following resolutions and outcomes were reviewed and used in this analysis:

**Commission on the Status of Women – Agreed Conclusions**

- Achieving gender equality and the empowerment of all women and girls in the context of climate change, environmental and disaster risk reduction policies and programmes (CSW66)
- Women’s full and effective participation and decision-making in public life, as well as the elimination of violence, for achieving gender equality and the empowerment of all women and girls (CSW65)
- Political declaration (CSW64)
- Social protection systems, access to public services and sustainable infrastructure for gender equality and the empowerment of women and girls (CSW63)
- Challenges and opportunities in achieving gender equality and the empowerment of rural women and girls (CSW62)
- Women’s economic empowerment in the changing world of work (CSW61)
- Women’s empowerment and the link to sustainable development (CSW60)
- Challenges and achievements in the implementation of the Millennium Development Goals for women and girls (CSW58)
- Elimination and prevention of all forms of violence against women and girls (CSW57)
- Access and participation of women and girls in education, training and science and technology, including for the promotion of women’s equal access to full employment and decent work (CSW55)
- 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 (CSW47)
General Assembly
• A/RES/76/227. Countering disinformation for the promotion and protection of human rights and fundamental freedoms
• A/RES/76/213. Science, technology and innovation for sustainable development
• A/RES/76/200 Agricultural technology for sustainable development
• A/RES/76/189. Information and communications technologies for sustainable development
• A/RES/76/173. The safety of journalists and the issue of impunity
• A/RES/76/142. Follow-up to the Fourth World Conference on Women and full implementation of the Beijing Declaration and Platform for Action and the outcome of the twenty-third special session of the General Assembly
• A/RES/75/316. Impact of rapid technological change on the achievement of the Sustainable Development Goals and targets
• A/RES/75/176. The right to privacy in the digital age
• A/RES/75/157. Women and girls and the response to the coronavirus disease (COVID-19)
• A/RES/75/156. Strengthening national and international rapid response to the impact of the coronavirus disease (COVID-19) on women and girls
• A/RES/74/235. Women in development
• A/RES/74/174. Countering child sexual exploitation and sexual abuse online
• A/RES/73/218. Information and communications technologies for sustainable development
• A/RES/68/181. Promotion of the Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms: protecting women human rights defenders

Economic and Social Council
• E/RES/2022/16. Science, technology and innovation for development
• E/RES/2022/15. Assessment of the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society
• E/RES/2021/10. Socially just transition towards sustainable development: the role of digital technologies on social development and well-being of all

Human Rights Council
• A/HRC/RES/50/18. Elimination of all forms of discrimination against women and girls
• A/HRC/RES/50/17. The rights to freedom of peaceful assembly and of association
• A/HRC/RES/50/15. Freedom of opinion and expression
• A/HRC/RES/49/21. Role of States in countering the negative impact of disinformation on the enjoyment and realization of human rights
• A/HRC/RES/48/4. Right to privacy in the digital age
• A/HRC/RES/48/2. Equal participation in political and public affairs
• A/HRC/RES/47/23. New and emerging digital technologies and human rights
• A/HRC/RES/47/16. The promotion, protection and enjoyment of human rights on the Internet
• A/HRC/RES/47/15. Accelerating efforts to eliminate all forms of violence against women and girls: preventing and responding to all forms of violence against women and girls with disabilities
• A/HRC/RES/47/6. The right to education
• A/HRC/RES/47/5. Realization of the equal enjoyment of the right to education by every girl
• A/HRC/RES/44/4. Trafficking in persons, especially women and children: strengthening
• Human rights through enhanced protection, support and empowerment of victims of trafficking, especially women and children

• A/HRC/RES/41/17. Accelerating efforts to eliminate all forms of violence against women and girls: preventing and responding to violence against women and girls in the world of work

• A/HRC/RES/38/7. The promotion, protection and enjoyment of human rights on the Internet

• A/HRC/RES/38/5. Accelerating efforts to eliminate violence against women and girls: preventing and responding to violence against women and girls in digital contexts

**Committee on the Elimination of Discrimination against Women**

• General recommendation No. 39 on the rights of Indigenous Women and Girls

• General recommendation No. 38 on trafficking in women and girls in the context of global migration

• General recommendation No. 37 on gender-related dimensions of disaster risk reduction in the context of climate change

• General recommendation No. 36 on the right of girls and women to education

• General recommendation No. 35 on gender-based violence against women, updating general recommendation No. 19

• General recommendation No. 34 on the rights of rural women

• General recommendation No. 33 on women’s access to justice

• Joint general recommendation No. 31 of the Committee on the Elimination of Discrimination against Women/general comment No. 18 of the Committee on the Rights of the Child (2019) on harmful practices*

**Committee on the Rights of the Child**

• General comment No. 25 on children’s rights in relation to the digital environment

**Committee on the Rights of Persons with Disabilities**

• General comment No. 3 on women and girls with disabilities

**Other**

• Recommendation on the Ethics of Artificial Intelligence (UNESCO General Conference 41st session)

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*Women farmers receiving training in drone piloting, Senegal. Photo: UN Women/Yulia Panevina*