UN COMMISSION FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT
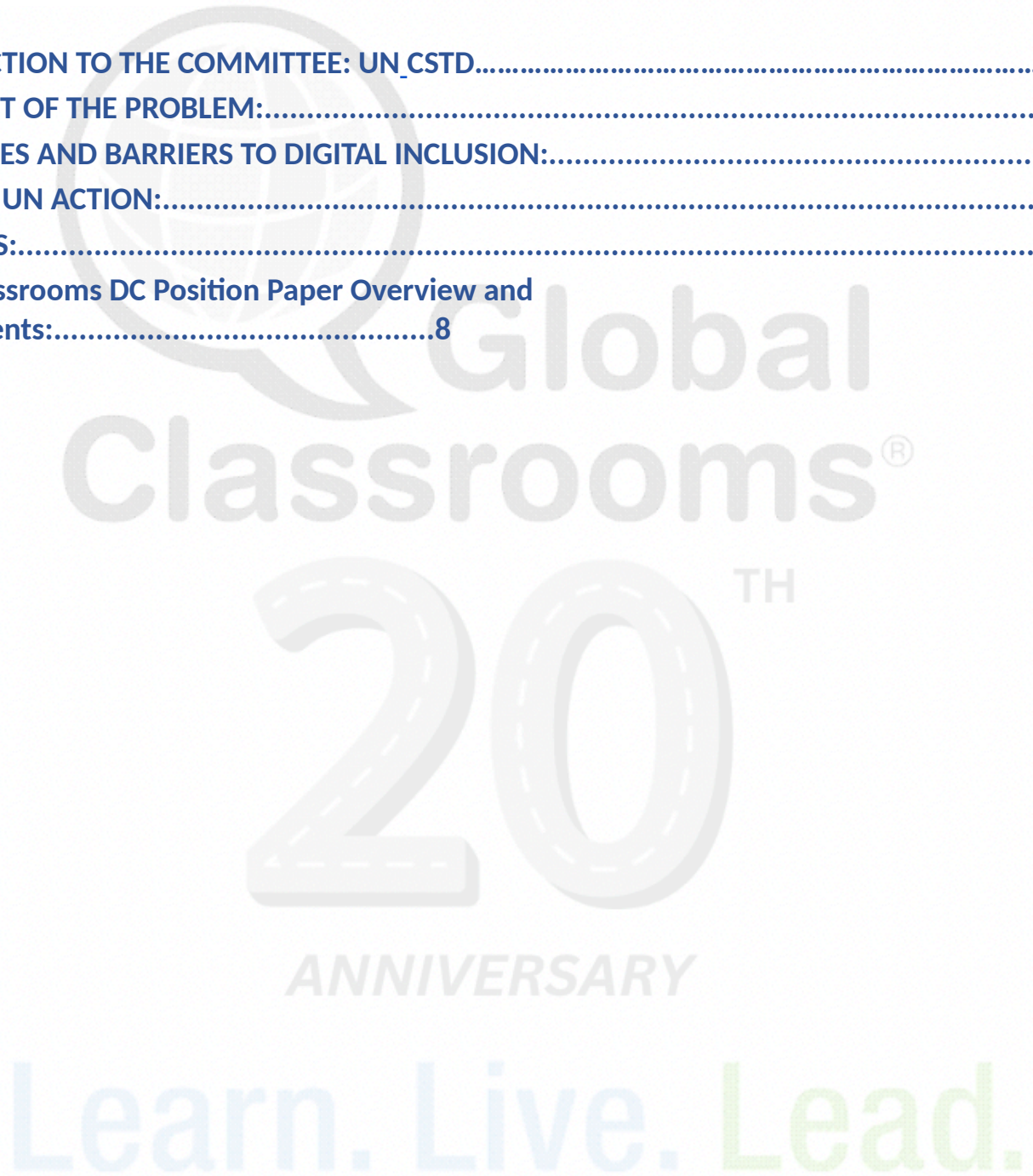
Digital Inclusion and Closing the Digital Divide

GLOBAL CLASSROOMS DC

SPRING 2024 MODEL UN CONFERENCE

CONTENT TABLE

INTRODUCTION TO THE COMMITTEE: UN Commission on Science and Technology for Development [1]

The **UN Commission on Science and Technology for Development (CSTD)** originated at the UN Conference on Science and Technology for Development in Vienna, 1976. At the conference, an Intergovernmental Committee on Science and Technology for Development was established. Later in 1992, the UN General Assembly converted it into a functional commission of the Economic and Social Council (ECOSOC), thereby creating the CSTD. Functional commissions are subsidiary bodies of the ECOSOC and address specific thematic or functional areas of importance to the UN's work. As per the UN charter, **ECOSOC** is one of the primary organs of the United Nations - it is responsible for promoting economic and social rights.[2] The commission is mandated to advise the ECOSOC on Science, Technology, and Innovation (STI) policies and strategies, conduct reviews of global STI trends, and also assess their impact on sustainable development goals.[3] It serves as a platform for discussing science and technology's role in development, advancing policies, and formulating guidelines within the UN system. Since 2006, it has also focused on following up on the outcomes of the World Summit on the Information Society (WSIS). The commission reviews progress in implementing WSIS outcomes and shares best practices.[4]

In terms of membership, CSTD has forty-three members and they are elected by the ECOSOC for a term of four years. It has eleven members from the Africa region, nine members from the Asia-Pacific region, eight members from Latin American and Caribbean States, five members from Eastern European countries, and ten members from Western European and other states. The representatives nominated from the respective countries are required to possess technical expertise on science and technology.[5]

STATEMENT OF THE PROBLEM:

The term "digital divide" refers to the gap between those with access to modern information, communications, and technology (ICT) and those without access or in many circumstances, have restricted access to modern ICT. This disparity encompasses not only access to hardware and infrastructure but also factors such as digital literacy, skills, and the ability to effectively utilize digital resources. In this case, modern ICT refers to the internet, computers, laptops, smartphones, and related technologies. Angela Canavan Corr, author of Children and Technology, defines modern ICT as "anything that allows us to get information, to communicate with each other, or to have an effect on the environment using electronic or digital equipment."[6]

Access to these technologies is paramount in today's interconnected world. They can serve as valuable resources

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[1] "Commission on Science and Technology for Development, twenty-second session." UNCTAD, 2019, https://unctad.org/meeting/commission-science-and-technology-development-twenty-second-session.

[2] "What does ECOSOC do?" https://www.un.org/en/ecosoc/meetings/2005/hl2005/ECOSOCinfo%20rev%20et.pdf.

[3] "Commission on Science and Technology for Development." SDG Knowledge Platform, 2022, https://sustainabledevelopment.un.org/index.php?page=view&type=30022&nr=2846&menu=3170.

[4] "Mandate and Institutional Background." UNCTAD, https://unctad.org/topic/commission-on-science-and-technology-for-development/mandate.

[5] Ibid.

[6] "Modern Communications Technology: What is Modern Communication Technology?" Bartleby, https://www2.bartleby.com/essay/Modern-Communications-Technology-What-Is-Modern-Communication-FJXRHHK9E6#:~:text=Modern%20communications%20technology%20or%20ICT,

for information, education, economic opportunities, civic duty and act as key vehicles to social interaction and cultural exchange. Despite rapid advancements in digital technology, many people lack access to it (or possess limited access).

The variables that create the digital divide are varied in nature, they may include socio-economic factors (including race, gender, class, caste etc.), geographic location, government policies, and infrastructure availability. Therefore, it's imperative for initiatives aimed at bridging the digital gap to adopt an **intersectional approach** that acknowledges and addresses these multiple layers of inequality. The following background guide aims to: determine key factors contributing to the digital divide, identify those disproportionately affected by it, and explore its ramifications on access to health, education, economic opportunities, and social inclusion, among other factors.

CHALLENGES AND BARRIERS TO DIGITAL INCLUSION:

Developed vs Developing Countries:

[7]

The effects of the digital divide are notably evident in the widening gap in access to digital technologies and resources between developed and developing countries. In this context, the terms development and developing broadly coincide with the economies of said countries (i.e. high-income vs low-income countries[8]) and their corresponding rank on the Human Development Index (HDI). The HDI measures human development, and includes indicators such as life expectancy, years in school, and gross national income (GNI)[9].

The logical and academic consensus is that developed countries enjoy more digital inclusion. According to Angel Gonzalez Sanz, the Head of Science, Technology and Innovation in the Division of Technology and Logistics at the United Nations Conference on Trade Development (UNCTAD), only 27% of the population in developing countries are internet users. This figure falls significantly below the global average of 63% of the world's population connected to the internet.[10] The lack of digital inclusion in developing countries is closely associated with the lack of capital and prioritization of other more pertinent issues over digital inclusion. The lack of digital inclusion carries numerous negative **implications** for developing countries, including a lower quality of life, barriers to robust education systems, and impacts on the economy.[11]

During a general assembly, second committee session on the secretary general's reports on the progress made in the implementation and follow-up on the outcomes of WSIS, the South Africa representative called for a transfer of technologies and financial resources to enable developing countries to reduce the digital divide. Other

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[7] Dercon, "Opinion: Making Digital Technologies work for developing countries - a new role for donors." Devex, https://www.devex.com/news/opinion-making-digital-technologies-work-for-developing-countries-a-new-role-for-donors-96087.

[8] Key Terms

[9] "Human Development Index." WHO, https://www.who.int/data/nutrition/nlis/info/human-development-index/.

[10] "Internet Use." ITU, https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-internet-use/.

[11] "Digital Divide in Developing Countries: Why We Need to Close the Gap." CTU, https://ctu.ieee.org/digital-divide-in-developing-countries-why-we-need-to-close-the-gap/#:~:text=There%20are%20three%20primary%20effects,Lack%20of%20%20education.

proposed **solutions** included urging developing countries to empower local researchers and tech ecosystems.

Younger vs Older Generations:

The digital gap within and among various countries is exacerbated by a multitude of factors. Age-related disparities, specifically the challenge for older generations to adapt to a rapidly evolving digital landscape, serve as a significant barrier to achieving digital inclusion. Depending on their geographic location and other demographic factors such as race, class, or caste, older adults face restricted access to modern information and communication technologies (ICT), stemming from either inadequate infrastructure or lack of digital literacy skills. Research conducted by Pew Research indicates that only 8% of adults aged 65 or older utilize the internet with the same frequency as their younger counterparts.[12]

Restricted access to the internet **results in** **social isolation,** which disproportionately affects older adults specifically in high-income and well developed areas where access to ICT is commonplace. As mentioned, the digital divide not only pertains to a lack of access to modern ICT infrastructure, but is also related to the lack of digital literacy (and related skills) to adequately levergate digital devices. Therefore, even if older adults have access to digital infrastructure, a lack of digital readiness inhibits their ability to avail essential services. During the COVID-19 pandemic, elders experienced difficulties in accessing **specialty care** and researchers predict that the situation would have been different if they were able to access **digital health resources** (including essential information online).[13] According to the Int'l journal of Medical Informatics, an estimated 60% of users "search health information online."[14] Increasing economic disparities among older adults also contribute to the inability to gain digital literacy skills or restricted access to digital infrastructure. A **solution** put in place includes providing a discount on broadband internet access for older adults; government funded discounts of this nature are common in the United States.[15] Other proposed solutions include digital literacy training for older adults, newer technology targeted toward older adults (Internet of Things - IOT, referring to fitbits, smartwatches etc), and inclusion of older adults' needs during digital technology research & development (R&D).[16]

Men vs non-men:
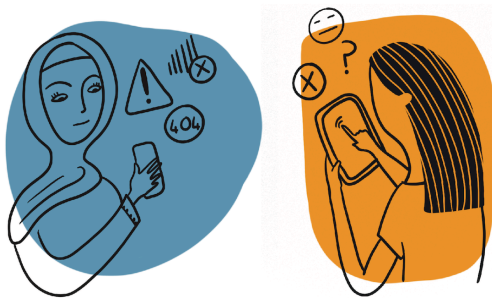
[17]

The **Gender Digital Divide** is the lack of access to and use of information communication technologies (ICTs) among women and girls. Globally, 70% of men are internet users, compared to 65% of women. Gender digital parity is achieved when the ratio of female internet users to male internet users is 8.98 to 1.02. According to the International Telecommunication Union (ITU - UN Specialized Agency), countries/regions with a higher percentage of internet users (and more developed countries) like in the *Americas* and *Europe,* gender digital parity is closer to being achieved. *Asia-Pacific* and *Arab States* have made some improvements on

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[12] Perrin and Atske, "About three-in-ten U.S. adults say they are *almost constantly* online." Pew Research, 2021, https://www.pewresearch.org/short-reads/2021/03/26/about-three-in-ten-u-s-adults-say-they-are-almost-constantly-online/.

[13] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9052810/

[14] Mubarak and Soumi, "Elderly Forgotten? Digital Exclusion in the Information Age and the Rising Grey Digital Divide." National Library of Medicine, 2022, https://journals.sagepub.com/doi/10.1177/00469580221096272.

[15] Ibid.

[16] Ibid.

[17] "Women's Rights Online: closing the digital gender gap for a more equal world." World Wide Web Foundation, 2020, https://webfoundation.org/research/womens-rights-online-2020/.

this front, while the ***Africa region*** with relatively fewer internet users lags behind.[18] The disproportionate impact of the digital divide on women and girls is caused by various interconnected issues. These factors include geographic location, as evidenced by regional differences in gender digital parity, as well as race and other identity-related factors. Generally speaking, women are paid less than their male counterparts for the same work and also engage in more unpaid work, leading to an overall **lower net income**. This limits their access to digital infrastructure.

In regions where access to digital technologies is limited for all individuals, women's access to digital resources may face further hindrances. Societal norms and systemic discrimination towards women, lead to said challenges in access. USAID cites an example from northern India, where hundreds of rural communities have banned women from using mobile phones. These types of discriminatory practices in combination with affordability and availability issues exacerbate the situation for women.[19] Even in regions with higher levels of access to modern ICT, women may lack the digital literacy skills to adequately use these technologies. According to recent studies, men are four times as likely to work in ICT sectors than women, hence demonstrating the lack of gender representation in this field.[20] Digital technologies also do not account for millions of speakers using unwritten languages — as a result, women, a key part of these populaces, are negatively impacted. There is also an increasing lack of desire among women and girls to engage in modern ICT. Along with accessibility issues, growing online sexual violence and harassment particularly against women from marginalized groups and/or in the public domain has made the online space quite harmful for many women.[21]

Nevertheless, the digital gender gap has many **social, economic, civic, and personal implications** for women. According to USAID, "over 90% of jobs worldwide have a digital component" — without adequate digital knowledge, women may feel under confident to become active members of the workforce or their performance at work could be negatively impacted.[22] The digital space also offers entrepreneurial opportunities which people without digital skills may miss out on. Education is another key part of today's ICT. The COVID-19 pandemic has transitioned many in-person educational institutes to online or hybrid learning models, and even as these schools have come back in-person, they continue to retain various components of the online learning system. According to UNICEF, the gender digital gap has led to "women and girls (having) lower levels of education."[23] Digital gender disparity may also lead to lower levels of civic participation among women. For example, while India is one of the emerging players in developing Digital Public Infrastructure, i.e. digital services provided by governments, like internet access, official websites, and online government services etc, these initiatives stand in stark contrast to the lack of digital gender parity in the country.[24] A final example of the implications of the digital gender disparity is how restricted

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[18] "Digital gender parity is still a distant prospect in regions with low internet use." ITU, https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-the-gender-digital-divide/.

[19] "The Gender Digital Divide Primer." USAID, 2020, https://www.usaid.gov/sites/default/files/2022-05/DAI-1089_GDD_Primer-web_rev1_9.6.21.pdf.

[20] https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf

[21] Ibid.

[22] Ibid.

[23] "What we know about the Gender Digital Divide?" UNICEF, https://www.unicef.org/eap/media/8311/file/What%20we%20know%20about%20the%20gender%20digital%20divide%20for%20girls:%20A%20literature%20review.pdf.

[24] https://www.undp.org/digital/digital-public-infrastructure

access to ICT can also restrict survivors of violence from seeking safety, benefitting from specialized healthcare, and/or using technology to navigate escape routes.

Solutions proposed by nonprofits, government sectors, and UN agencies to combat this disparity include empowering organizers to change social norms, provide customized technology ("innovative video and audio platform") that is accessible to women with lower literacy levels, develop community support, and empowerment strategies to help women feel more comfortable with using modern ICT.[25]

Other genders - Most of the research on the digital gender gap focuses on the experiences of women relative to men. Some research based in Europe enumerates that non-binary youth are more likely to make effective use of the internet for content creation, and physical and mental health purposes than binary youth.[26] However it is also important to note that there is a persistent pattern of anti-trans and anti-non-binary online violence — specifically through the propagation of misinformation — in many regions around the world.[27] This pattern could deter non-binary and transgender individuals from embracing technology use. These types violence may translate to offline violence or vice versa. Moving forward, it is necessary that UN member states and UN agencies study the digital gender gap by taking into account the experiences of non-binary and gender diverse people.

Black, Indigenous, other Marginalized Groups:

Black, Indigenous, and other marginalized groups often face intersecting challenges when it comes to accessing and benefiting from digital technologies. The causal factors[28] behind digital disparity among these communities are similar to why gender-oppressed communities (like women) are affected by the divide. For instance, socioeconomic factors play a significant role, as many Black, Indigenous, and other individuals of varying intersections have limited access to resources such as high-speed internet, computers, or smartphones due to economic disparities. Historical injustices, including systemic racism and colonialism, have contributed to unequal access to education and other opportunities, worsening the digital divide.

Additionally, note that the causal factors of this divide are specific to each group. Many indigenous communities in the Americas are for instance based in mountainous areas and their geographic location does not accommodate broadband internet access. An American policy institute notes that, "just 67% of **tribal lands** in the continental U.S. have access to broadband internet, with the majority only having access to broadband speeds considered by the FCC to be less than 'minimally acceptable.'"[29] Also in the United States, 40% of Black Households as opposed to only 28% white households don't have access to broadband Internet. Wealth gaps and a lack of

[25] "The Gender Digital Divide Primer." USAID, 2020, https://www.usaid.gov/sites/default/files/2022-05/DAI-1089_GDD_Primer-web_rev1_9.6.21.pdf.

[26] "Gendered perspectives on digital skills and digital activities: Comparing non-binary and binary youth." Communicar, https://files.eric.ed.gov/fulltext/EJ1384761.pdf.
[27] "New Study finds that online gender-based violence framings are leaving out transgender, non-binary, and gender-diverse people's experiences." APC, 2023, https://www.apc.org/en/press/new-study-finds-online-gender-based-violence-framings-are-leaving-out-transgender-non-binary.
[28] Reventllow, "Why Tech Needs to focus on the needs of marginalized groups," World Economic Forum, 2021, https://www.weforum.org/agenda/2021/07/tech-focus-needs-marginalized-groups/.
[29] Spiegel, "Bridging the Digital Divide in Native American Communities," Rutgers University, https://policylab.rutgers.edu/bridging-the-digital-divide-in-native-american-communities/#:~:text=According%20to%20an%20American%20Indian,be%20less%20than%20'minimally%20acceptable.

digital literacy readiness/competency are some of the primary drivers of this divide.[30] The **implications** of the digital divide on marginalized communities are similar to the economic, social, and civic implications explored in the aforementioned section on the gender digital divide. A significant economic consequence is the lack of access to high-paying jobs, as many of them are contingent upon their employees possessing digital readiness.

Pew Research Center outlines that many marginalized communities' lack of access to broadband internet access may affect their ability to break into the digital workforce.[31] Access to education is also severely impacted as schools increasingly digitize their education systems. While female students are negatively impacted by this divide, students from marginalized communities and specifically those at the intersection of being female and from a marginalized community, experience added challenges on this end.

A piece by Indian contributor & reporter Hana Vahab, highlights how the digitization of education in many parts of India during the onset of the pandemic did not take into account the lack of resources within many poor, and oppressed caste households. The increased digitization has exacerbated mental health issues for some students within the community.[32] Various **solutions** have been proposed and implemented over the years to expand access to marginalized populations. For example, the Ministry of Education in Tunisia broadcasted lessons on national television to support students from low resources communities with restricted access. Also, students from these communities were provided with free laptop and internet access.[33] Another example of a government initiative is the National Agreement on Closing the Gap, a collaborative effort between the Australian federal government, state and territorial governments, done in coordination with Aboriginal and Torres Strait Island People (Indigenous communities in Australia). The agreement provides a framework on closing the inequality gap between Australian Indigenous communities and White Australians. One of the framework's targets (namely target 17) is to ensure that indigenous communities in Australia are guaranteed digital inclusion by 2026.[34] Investments in digital literacy and development of robust broadband internet networks that can sustain long-distances, are other proposed solutions to increase digital inclusion for marginalized communities.[35]

PREVIOUS UN ACTION:

Alongside the pertinent advisory role played by UN CSTD in providing guidance on digital inclusion, others within the UN system are also conducting important programming on this end. Article 21 on the Convention on the Rights of Persons with Disabilities highlights the right to internet access for persons with disabilities.[36] Additionally, the

Black America." Mckinsey, https://www.mckinsey.com/industries/public-sector/our-insights/closing-the-digital-divide-in-black-america.

Linkedin, 2023,
https://www.linkedin.com/pulse/bridging-digital-divide-labor-its-impact-marginalized-adams#:~:text=The%20Digital%20Divide%3A%20A%20Barrier%20to%20Inclusion&text=According%20to%20the%20Pew%20Research,labor%20markets%2C%20leaving%20them%20disadvantaged.

[32] Vahab, "Digital Education and the outcasted." Madhyamam, 2020, https://madhyamamonline.com/lifestyle/education/digital-education-and-the-outcasted-608887.

[33] https://www.pwc.com/m1/en/publications/documents/bridging-digital-gap-state-digital-inclusion-mena-region.pdf

[34] "Digital Inclusion and Target 17." Digital Inclusion, https://www.digitalinclusion.gov.au/digital-inclusion-and-target-17.

[35] "Solutions to the Digital Divide: Moving Forward a More Equitable Future." CTU,
https://ctu.ieee.org/solutions-to-the-digital-divide-moving-toward-a-more-equitable-future/.

[36] "Definitions of the Right to Freedom of Opinion and Expression." Claiming Human Rights, http://www.claiminghumanrights.org/opinion_expression_definition.html. I

Development Goal 9 of the sustainable development goals (" shared blueprint for peace and prosperity" and adopted by all UN member states), outlines the importance of industry, innovation, and infrastructure. It specifically highlights equitable internet access.[37] The Secretary-General's Roadmap in 2020, set out a plan for achieving universal access to affordable and reliable internet. The implementation of the roadmap is being carried out by the Office of Envoy & Technology. The United Nations High Commissioner for Refugees (UNHCR) has implemented a digital inclusion program dedicated to make digital technology more accessible to refugees and asylum seekers.[38] Despite progress and growing awareness on the issue, as outlined in this background guide — there are still pending gaps and more robust action which prioritizes an intersectional approach must be implemented.

Key terms:

Digital Divide: Refers to the gap between those with access to modern information, communications, and technology (ICT) and those without access or in many circumstances, have restricted access to modern ICT.
High-income countries: According to the World Bank, high-income countries as of 2024, had a Gross National Income (GNI) per capita of USD 13, 846 or more.
Low-income countries: According to the World Bank, low-income countries as of 2024, had a Gross National Income (GNI) per capita of USD 1,135 or less.[39]

Global Classrooms DC Position Paper Overview and Requirements

What is a Position Paper?

A position paper is a short document that outlines a country's opinion on an issue. The paper includes a short summary of what the issue or problem is, explains why the country is interested in the issue, and communicates the country's stance on what should be done to address the issue. A position paper is written as if you were the actual representative of the country stating its position. Your personal opinions on the issue should not be included. A position paper is not a summary of your country's GDP, government, economy, languages, etc. unless directly relevant to the issue. Only one position paper is written per country, per grade school committee; if there are 2 or 3 delegates representing the same country on a committee, they should write the paper together.

Why write a Position Paper?

Writing a position paper will help you organize why an issue matters to your country and what your country wants done on the issue. The first thing you will likely do in committee is present an opening speech about your country's position. You should be able to pull portions of a well written position paper into an introductory speech on your country's perspective. Also, your delegation is not eligible to win best / outstanding delegation without the submission of a position paper. There are separate awards given for best position paper.

How to Write a Position Paper

(1) Research the Issue. The questions you want to answer are:

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[37] "17 Goals"

[38] https://www.unhcr.org/innovation/digital-inclusion/

[39] "World Bank Country and Lending Groups." The World Bank 2024, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups#:~:text=For%20the%20current%202024%20fiscal,those%20with%20a%20GNI%20per.

- How does this issue affect your country?
- How does this issue affect your country's neighbors or allies?
- Is this a global problem that impacts everyone?
- What would your country like to see done on this issue?
- Are there countries or groups of people who will be particularly sensitive to addressing this issue?
- Are there any conventions or resolutions on the topics that your country has signed or ratified?
- What are UN actions on the issue? Has your country supported or opposed these actions?
- Keep in Mind: What a country says, and what it actually believes should be done may be different. Also, some countries may believe that no action should be taken on an issue. They may disagree with how others feel or may not want international involvement. It is okay if your position is that the international community should do nothing, but you will need to explain why.

(2) Brainstorm Specific Actions. Come up with 3-4 specific things that can be done to reach the outcome your country desires. For example: "The United States believes we should send a peacekeeping mission to monitor human rights abuses in Syria and encourage talks between both sides." You will present these ideas in committee as possible solutions to the problem and attempt to pass a resolution which includes these actions.

(3) Outline Your Paper. Make an outline of what points you want to cover in your paper and the order in which you would like to address them. Remember a good paper should briefly explain the problem, explain why your country cares about the issue, and inform others what your country should like to see done. If you know other countries favor a solution that you will disagree with, make sure to include why your country disagrees.

(4) Write your Paper. Position papers should be no more than one page long and be written from the perspective of the country you are representing. Rather than being a report on the topic, a position paper should explain what your country wants to see done to address the issue. Start by giving a brief summary of the issue and how it impacts your country. Then explain the specific actions you would like to see taken. Close by summarizing your country's overall position. Proper grammar and spelling are a must.

Award Criteria and Eligibility
- Each Committee is giving out the following awards – Honorable Mention, Outstanding Position Paper, and Best Position Paper.
- The ideal position paper will have a clearly defined and summarized topic with your country's position clearly outlined. Points are also awarded for organization, style and correct grammar.
- GCDC Staff will be fact checking position papers, so be sure to include the most up to date information and a bibliography (if using in text citations, a Works Cited page MUST be included)
   - Proper source citation: if an idea or quote came from another source, you must provide a footnote / citation.
- Papers will be disqualified if the conference staff has discovered that students did not write their own papers or that content has been plagiarized.
- Make sure your position paper must have the required header below! Do not create any additional title pages - points will be deducted for improper format.
- Formatting Requirements: 500 words minimum, 1,500 words maximum. Times New Roman font, 12- point size
- **POSITION PAPERS MUST BE SENT IN AS A PDF ATTACHMENT TO gcdc@unanca.org by APRIL 22nd, 2024 (extensions may be granted on a case by case basis and must be requested before the due date) AT 11:59 PM EST.**

REQUIRED POSITION PAPER HEADER

Committee:

Country: Topic
School:
Delegate Name(s)