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(CSTD)**

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**Submissions from entities in the United Nations system, international
organizations and other stakeholders on their efforts in 2022 to
implement the outcomes of the WSIS**

Submission by

United Nations Children's Fund

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 26th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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UNICEF WSIS Report 2022

UNICEF's reporting for 2022 focuses on the reporting template **Part Three: Innovative policies, programmes and projects** which have been undertaken, and future actions.

C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development

Legislating for children in the digital age: Global guide on strengthening legislating frameworks: The use of rapidly changing digital technologies to sexually exploit and abuse children, the wide reach of online services and the fact that such exploitation and abuse may involve victims and perpetrators from different jurisdictions, all pose challenges to States seeking to protect their children. Many States have yet to put in place or update the wide-ranging legislation that is required to deal with this phenomenon. In response, UNICEF developed a [global guide](#) to provide guidance on how to strengthen legislative frameworks to protect children from online sexual exploitation and abuse in accordance with international and regional conventions, general comments and guidelines of treaty bodies, model laws and good practices. The guide is being used by regional and country stakeholders involved in law reform.

Foresight on digital issues: UNICEF uses foresight techniques to scan the horizon for frontier issues, analyzing how digital transformation affects children, and advancing recommendations and policy advice for governments and the private sector. We release an annual [Outlook](#) for the following year to help the organization and others working with children better anticipate the changing global landscape. In preparation for Outlook 2023, we have recruited the first ever group of [Youth Foresight Fellows](#) from around the world to help the Organization navigate the future.

Under the [Disrupting Harm project](#) (2019-2022), UNICEF carried out extensive data collection with more than 13,000 children and 13,000 caregivers in East Asia (Cambodia, Indonesia, Malaysia, the Philippines, Thailand and Vietnam), and in eastern and southern Africa (Ethiopia, Kenya, Mozambique, Namibia, South Africa, Uganda, and the United Republic of Tanzania). This project, conducted in partnership with ECPAT International and INTERPOL, provides the most comprehensive overview to date on how technology facilitates the sexual exploitation and abuse of children, both online and offline, and how national protection systems are responding, or failing to respond, to this crime. In 2022, the first 13 country assessments were finalized and launched, providing an evidence-driven road map for countries to improve prevention and response to online child sexual exploitation and abuse (OCSEA). In 2022, the project was extended to another 11 countries for which results will be available in 2024.

UNICEF has produced a report about [protecting children in cyberconflicts](#), examining the ways in which cyberconflict adversely affects children and offering actions that could strengthen safeguards to protect them. The report outlines the urgent need to clarify how child rights apply in the digital space and for Member States to place these rights at the centre of regulatory frameworks and legislation on new technologies.

Working with the London School of Economics and Political Science, we have developed a [child-centred digital equality framework](#) that incorporates all aspects of digital inclusion, involves a broader range of stakeholders, and responds to emerging technologies and trends. The framework can be used as a basis for designing and evaluating digital inclusion policies, to help gauge how holistic a policy is, and as a tool to assist drafting policies and interventions by government policymakers, international organizations and the private sector.

UNICEF is developing a report on the **metaverse, extended reality (XR) and children**, outlining key opportunities, risks and policy considerations, with recommendations for both policymakers and companies. Efforts planned for 2023 include a report on **neurotechnology and children** to better understand the opportunities and risks for children, and what policy approaches are needed to maximize the benefits and avoid these risks. Work is also planned on **cryptocurrencies, fintech and children**, looking at the opportunities, risks and impacts, including virtual economies in virtual environments, as well as **biotechnology and children**.

C2. Information and communication infrastructure / C7. ICT Applications: e-Learning / WSIS Target 2: To connect universities, colleges, secondary schools and primary schools with ICTs, To connect all secondary schools and primary schools with ICTs

Giga for school connectivity: [Giga](#) is a UNICEF and ITU initiative that aims to connect 1.3 billion children to the internet – an ambition that comes with a USD\$428 billion price tag. Giga has mapped 1.1 million schools in over 50 countries with live connectivity data on [Project Connect](#). 5,200 schools and over 2 million students have been connected in 19 countries. The initiative is open to innovative approaches to finance such as blockchain technology and NFT's. Commemorating 75 years of UNICEF, Giga launched the largest-ever NFT collection in the UN through Patchwork Kingdom. In partnership with the Government of Rwanda and Ethereum, Giga has experimented with cryptocurrency staking, a form of financing with the potential to fund connectivity costs for schools.

Trends in digital personalized learning: As part of UNICEF's work on strengthening the knowledge, skills and abilities that lead to personal well-being and improved work opportunities, we have conducted a [landscape review of emerging personalized learning solutions](#) in low and middle-income countries, including recommendations for key stakeholders to further opportunities for children.

C3. Access to Information and Knowledge

U-Report: U-Report is UNICEF's largest digital platform for youth engagement, program delivery and emergency response. Currently, the platform is in 91 countries and reaches over 25 million youth. As of October 2022, 1.4 million responses from U-Reporters have been engaged this year around education, climate and mental health on the platform.

INVENT: More than 1,100 Technology for Development (T4D) and innovation initiatives are currently registered in INVENT, UNICEF's global digital hub for T4D and innovation. The INVENT platform is both an inventory of initiatives and a portfolio tool that allows promising ideas across UNICEF to benefit from greater visibility. 54 promising solutions to the priority problems have been identified for scale-up.

Adolescent Data Portal: This [portal](#) brings together in one place global, regional and national-level data on adolescent well-being across key areas of their lives – health and nutrition, education and learning, protection and transition to work. The portal allows for dynamic views and use of the data, including through thematic snapshots, country profiles, interactive data visualizations, and datasets which can be downloaded.

Strengthening geospatial capabilities for decision-making: As part of the multi-agency response to the Ukraine crisis, the UNICEF data team pulled together different data layers to enable visualization and analysis of features such as areas of control, areas of damage, damage to schools, flows of internally displaced people and more. This work was widely valued for its use in decision-making and benefited from strong partnership with Government, other UN agencies, academia, and other international networks. UNICEF continues to

strengthen its geospatial capabilities that underpin this work, including an ArcGIS enterprise architecture, and planned launch in 2023 of two major open-source geospatial analytics platforms, GeoRepo (catalog) and GeoSight (flexible GIS application solution).

More Water More Life is an initiative led by UNICEF in collaboration with the EU-Joint Research Centre (JRC). It increases access to climate-resilient clean water by combining remote sensing, GIS, hydrogeological mapping, and geophysical surveying to develop detailed suitability maps for drilling. Through the project, 740,000 children can have access clean water in Ethiopia and Madagascar, and plans are underway to scale to 4.5 million people across 4 countries.

C4. Capacity building

Voices of Youth: UNICEF's [Voices of Youth](#) platform is an online community for young advocates and creatives who raise awareness on issues such as climate change, mental health, gender equality, and inclusion through creative forms – writing, poetry, photography, and illustration. As of October 2022, the site has had over 5 million unique pageviews and 460,000 digital followers this year.

C6. Enabling environment

UNICEF Venture Fund makes equity-free investments in both fiat and cryptocurrency into early-stage, open-source solutions from emerging markets that leverage frontier solutions including blockchain, virtual and augmented reality, machine learning, and AI and drones. The Fund has made 69 investments in early-stage startups, 12 investments in growth-stage solutions, and 55 investments in UNICEF Country Offices, reaching 74 countries globally. This work includes exploring blockchain to improve financial inclusion and leveraging big data to ensure access to and delivery of services for children reaching up to **of 31.7 million beneficiaries** across several industries. The Fund is supporting entrepreneurs and technologists in emerging markets, especially female leaders with a portfolio now comprised of **43%** female founders.

Blockchain-Based Cash Transfer Pilot: In August 2022, UNICEF and Rumsan launched a blockchain-based Cash Voucher Assistance (CVA) pilot in Jaleswor, Madhesh Pradesh, Nepal. It uses Rahat, a blockchain-based CVA platform to equip unbanked and underbanked communities with faster and transparent assistance.

The **Digital Public Goods Alliance**, co-hosted by UNICEF, UNDP, and Norway, is a multi-stakeholder initiative working to accelerate the attainment of the SDGs in low- and middle-income countries by facilitating the discovery, development, use of, and investment in digital public goods. At the 77th session of the UN General Assembly, members and partners of the Alliance agreed to scale up efforts to build safe, trusted, and inclusive digital public infrastructure (DPI) and provided an initial US\$295 million in funding to support the development and adoption of inclusive DPI, scaling technical assistance, and deepening capacity building. The governments of Estonia, India, Norway, Peru, Sierra Leone, Singapore, Timor-Leste, Togo, and Ukraine are committed to sharing technologies as digital public goods, alongside best practices, and implementation learnings.

C7. ICT Applications: e-Learning

Gateways to Public Digital Learning (“Gateways”) is a new global initiative launched by UNICEF and UNESCO during the Transforming Education Summit. Gateways brings together public and private partners to close critical gaps and barriers in access to free, quality digital learning content and platforms, so that every child can benefit from the opportunities that technology brings to learning and skills development. Gateways will set global norms and standards for digital learning and

transformation, as well as corresponding new indicators and targets covering all countries. It will also identify and showcase global best practices in collaboration with partners and champion countries.

UNICEF's **Learning Passport** is a highly flexible digital education platform and supporting ecosystem that can be adapted to meet the specific needs of learners and educators- from foundational learning to skills development- across different contexts including formal and informal education settings. The Learning Passport is live in 26 countries with over 2.4 million users with more than 25 countries in the deployment pipeline.

FunDoo is a chat-based youth-engagement program equipping adolescents and young people 14 – 24 years with problem-solving and critical thinking skills through gamified *learning-by-doing* teaching approach. It uses WhatsApp, Telegram, Instagram, and Facebook messenger (and soon SMS) as key learning channels. FunDoo has been scaled from one country in 2020 to eight in 2022.

Gender and ICT skills: To coincide with International Girls in ICT Day on April 27, 2023, UNICEF is planning to release a report that explores gender disparities in digital skills, using household data that monitors ICT use by young women and men from 30+ low- and middle-income countries. Preliminary findings point to significant gender gaps in many countries, with young women showing a distinct disadvantage.

C7. ICT Applications: e-Health

Improving health messaging through multistakeholder partnerships: Meta and UNICEF have been engaged in a global strategic partnership aimed at strengthening digital communication and advocacy through new technologies and programs. Together, we are leveraging message testing tools to evaluate the kind of language or message that resonates best with various audiences. For instance, UNICEF country offices like Bangladesh and Vietnam are carrying out studies to measure the impact of COVID-19 campaigns and South Africa, the Philippines and Argentina are doing same for Routine Immunization campaigns. So far, over 100 UNICEF offices have benefitted from this partnership and together we have reached 2 billion unique Facebook users with life-saving information.

To **disseminate facts about COVID-19** and promote protective behaviour, UNICEF and the WHO co-launched [HealthBuddy](#), a **web-based chatbot** that uses AI to answer the public's questions about COVID-19. UNICEF also made HealthBuddy+ available to national authorities and public health institutions for tailored use in their countries. HealthBuddy currently supports 20 languages. To date, more than 750,000 users have accessed the chatbot, and more than 7 million interactions have been recorded.

Population Data for Action integrates settlement data (derived through combining census projections and satellite imagery building footprint data) into routine information systems for use in accountability, routine decision-making and monitoring the reach of primary care services and across multiple sectors to help reach the SDGs. Launched in 2021 in the Eastern & Southern African region, in collaboration with partners including GRID3 and University of Oslo, Population Data for Action has already scaled to five countries, with the reach of more than five million children under five.

Nutrition Dashboards: In 2022, UNICEF launched an interactive dashboard with national-level [infant feeding area graphs](#) covering more than 100 countries. This dashboard provides insights into what children are being fed in the first six months of life. Additionally, UNICEF has developed several other dashboards which are updated periodically. The interactive [Joint Malnutrition Estimates dashboard](#) visualizes the latest child malnutrition estimates at regional and global level and a [nutrition vulnerabilities dashboard](#) – developed in

response to the pandemic - has maps and statistics for various sub-populations for key nutrition indicators and associated household factors.

The **Digital Health Centre of Excellence (DICE)** is a multi-agency consortium co-led by UNICEF and WHO to provide support to the development and implementation of digital health initiatives across multiple countries, as well as provide technical assistance to countries on the deployment of geospatial data and technologies, including GIS for COVID-19 national vaccine distribution plans. Through the mechanisms of the GIS Working Group for [COVAX Innovation](#), including core partners The Global Fund, the Bill & Melinda Gates Foundation, Gavi, and CDC, GIS support included direct country technical assistance, country support in fundraising for geospatial investments, and production of implementation guidelines for geo-enabled vaccine microplanning. In Mozambique, DICE is supporting the Ministry of Health on population estimates and development of a digital health map. Malawi, Uganda, and South Sudan are being supported to shape their strategies and planning for implementation of geospatial technologies for routine immunization and COVID-19 roll-out. In Ethiopia, Cambodia, Nigeria and other countries, DICE worked with the Ministries of Health to facilitate stakeholder consultations to prioritize digital health investments in line with GAVI's 5.0. Strategy.

DICE is also closely assisting the Belarus, Montenegro and Kazakhstan Country Offices with the development and implementation of the regional adolescent mental health platform **USupportMe**, which provides on demand, remote access for young people to existing psychosocial support services through an app. DICE is supporting development and deployment of **Digital Vaccine Certificates** in Jamaica, Iraq, Mali, Syria, Ukraine and the Solomon Islands.

Digital mental health solutions: Safe and evidence-based digital solutions are increasing access to care by delivering low-cost Mental Health and Psychosocial Support Services (MPHSS) addressing stigma, preventative guidance, and promoting positive mental health for children and young people. UNICEF has invested in digital solutions delivering mental health support in 22 countries, that leverage real-time monitoring by using big data; chatbot initiatives; digitized mental health counseling; video games; and telemedicine for mental health.

Collaboration on the development of innovative digital parenting resources: Due to the impact of COVID-19, it is more challenging for parenting programmes to reach families in need - at a time that parents need this support more than ever. As an initial response the multi-agency Parenting for Lifelong Health communications initiative was launched in 2020, and has today reached over 200 million families with evidence-based parenting tips. Open-source interactive tools include PLH-ParentText, a chatbot delivered via RapidPro; PLH-ParentChat, an online group programme delivered through messaging services such as WhatsApp or Viber; and PLH-ParentApp, an app designed to complement in-person programme delivery and used as a self-led option or combined with remote facilitator support. These resources are being tested with UNICEF Country Offices in Jamaica, Malaysia, Montenegro, Philippines, South Africa, and Sri Lanka.

In addition, UNICEF has a dedicated [parenting platform](#) that helps caregivers to give their children the best start in life. Working with some of the world's leading experts, UNICEF turns the latest scientific thinking into practical tips and information for parents on topics from child development to mental health and vaccines. As of October 2022, the site has received more than 11.5 million unique page views with visitors from more than 200 countries/territories.