



**DIGITAL UNICEF**

# **Harnessing the power of technology and digital innovation for children**

UNICEF

Technology for Development Report  
INFORMATION COMMUNICATION AND TECHNOLOGY DIVISION

unicef   
for every child

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# ABBREVIATIONS

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AI	Artificial intelligence
COVID-19	Coronavirus disease 2019
CRVS	Civil registration and vital statistics
DHIS2	District Health Information Software 2
GIL	Generation of Innovation Leaders
ICTD	Information and Communication Technology Division (UNICEF)
IoT	Internet of Good Things
ODK	Open Data Kit
R3D	Real-time data-driven dashboard
SDG	Sustainable Development Goal
SMS	Short message service
T4D	Technology for Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	Water, sanitation and hygiene
WHO	World Health Organization





# FOREWORD

This past year has been unprecedented in many ways. The coronavirus disease 2019 (COVID-19) pandemic necessitated that we rethink so much about the way we work at UNICEF – not only to adapt to a remote workplace, but to deliver programmes more efficiently and effectively to populations in need in the context of the global shutdown.

For UNICEF's Information and Communication Technology Division (ICTD), these changes became urgent at a time when we were already rethinking how we work. ICTD has been at the forefront of an organization-wide digital transformation designed to build on the exponential growth in digital activities and leverage technology in new ways to achieve results for children.

Since its establishment in 2017, the Technology for Development (T4D) function within ICTD, has been dedicated to strengthening health, education, child protection and other systems to utilize digital technologies more effectively. That means building national enabling environments for digital transformation; scaling up digital platforms; strengthening coordination across platforms and among partners; and enhancing the viability and maturity of digital public goods across the world.

Over the past year, ICTD intensified its collaborations across UNICEF and with partners to rapidly develop and expand programme-centred technologies to meet the circumstances and needs of the day. We were instrumental

to the organization's risk communication and community engagement effort, which leveraged digital technologies to reach communities with the information they needed to protect themselves against COVID-19. We adapted UNICEF's health and education programmes using real-time information technology and digital education solutions. And we were quick to scale our existing technologies for child protection case management, cash transfers and other systems to ensure that our government partners could continue to reach children in need, despite the global shutdown.

UNICEF has learned from this experience that by transforming ICTD from a back-office help desk function to one that permeates every aspect of its work, we are able to deliver results for children faster and at scale. The achievements described in this report reflect that ICTD has become instrumental to how we do business at UNICEF; that our partners in digital technology are propelling this work in all areas; and that digital innovations and solutions are fundamental to improving children's lives across the world.

As we move towards a new Strategic Plan – in which fostering UNICEF's digital maturity will be paramount – this report, which is the companion document to the ICTD Annual Report, 'Digital UNICEF 2020', provides an opportunity reflect on the remarkable achievements of 2020, and the incredible potential of UNICEF's digital future.







## PART 1: EXECUTIVE SUMMARY

In recent years, UNICEF's information and communication technology support to digital programming initiatives has grown exponentially, shifting from internal management approaches to solutions that drive programme effectiveness across the globe. With the emergence of the COVID-19 pandemic in early 2020, UNICEF has accelerated its transformation into a digital organization – from the upscaling of digital teleworking practices to the use of innovative technologies in its programmes, finance and operations.

The pandemic has also brought on a shift in how our national partners deliver services – from in-person support to distance and remote delivery – which has made digital development integral to how UNICEF works in the field. The rapid acceleration and scale-up of digital programming and the strategic integration of information and communication technologies in national programmes has allowed UNICEF to help partners close the gaps to meet children's needs in complex environments, in line with existing national digital ecosystems and solutions.

UNICEF ICTD transforms and builds partnerships with stakeholders to successfully implement UNICEF programmes globally through the use of innovative, technology-enabled solutions to achieve better results for children. Technology for Development – a core programme-facing function supported by ICTD – supports UNICEF to scale digital programmes, digital innovations and mature digital solutions and accelerate results for children across the organization.

To date, more than 1,400 T4D and innovation initiatives have been 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. It is helping to focus the organization's resources and investment on the specific programme problems for which innovation is an effective change strategy. It serves as a structured and systematic process to identify, validate, select and invest in solutions that are proven to move the needle forward and generate progress on critical issues affecting children.

In 2020, UNICEF accelerated its transformation into a

Across the organization, and in the context of COVID-19, UNICEF's digital interventions continued to expand in 2020 and drive programme effectiveness across the globe. As part of its response to the pandemic, UNICEF reached 3 billion people through risk communication and community engagement initiatives – many of which employed digital solutions – to help communities halt the transmission of COVID-19 and mitigate its socioeconomic impacts. UNICEF deployed chatbots, short message service (SMS), interactive voice response and other technologies through multiple channels, including U-Report, RapidPro, Infolines, HealthBuddy, VIAMO Services and Commcare, to reach affected communities with life-saving information.

The rapid expansion of digital programming over the last year is also evidenced by the acceleration and uptake of digital real-time information solutions employed by countries at scale – a metric that ICTD tracks each year. In 2020, 113 countries (72 per cent) used real-time information technology at scale, exceeding UNICEF's target of 60 per cent by 2020. This work was carried out across all Strategic Plan goal areas. Forty-three per cent of country offices reported using RapidPro – a global digital public good used to power messaging programmes – for real-time information, and 43 per cent of countries also reported using platforms such as Kobo, Open Data Kit (ODK), Ona, Commcare and District Health Information Software 2 (DHIS2), among others. More than 40 per cent of countries reported using U-Report, powered by RapidPro, for youth/citizen engagement at scale.

**113**  
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UNICEF also worked with national authorities and implementing partners to adapt service delivery systems to cope with the socioeconomic impacts of the COVID-19

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