



DIGITAL UNICEF

Accelerating Results for Children with Technology and Digital Innovation

UNICEF

Technology for Development Report
INFORMATION COMMUNICATION AND TECHNOLOGY DIVISION

unicef 
for every child

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Ngaisatul Hikmah (7) - Ais has been living in Muslimin Orphanage in Jakarta since 2016. Ais' mother passed away, and she hasn't met her dad for a few years. Usually for her daily routine, Ais goes to school and participates in activities inside and outside of the orphanage.

But during COVID-19 pandemic, the orphanage requires the children to stay inside. During the pandemic, donations to the orphanage have been decreasing. This is causing children like Ais to become even more vulnerable.

Foreword

Over the last few years, there has been increasing recognition of the critical role of digital innovation and technology for development to UNICEF programming and accelerating support to the Sustainable Development Goals. With the global emergence of the coronavirus pandemic in early 2020, digital development has become an integral component of UNICEF's work as national programmes shifted to distance and remote means of delivery.

With the recent move to transform the Information and Communication Technology Division (ICTD) to an external facing and field-focused digital programming support function, UNICEF is well positioned to navigate this new digital programme environment, and has taken a powerful step towards creating an organizational culture in support of digital innovation and Technology for Development (T4D) that informs every aspect of our work for children.

The new T4D function, established in 2017, plays a pivotal role in this new digital programming environment. And in just three years, that role has been recognized as a critical enabler of digital innovation in UNICEF. According to the 2019 Evaluation of Innovation in UNICEF, this new approach is widely recognized and appreciated across the organization.

Technology for Development (T4D) staff are not only bringing technologies and digital innovations to the table; we work with national counterparts and programme and planning staff to think strategically and inter-sectorally about how the needs of children can be met, and gaps breached, through the use of technology as an enabler. We do not seek to disrupt, but rather, to build on and align with existing national systems, and to strengthen national capacities to deliver programmes more effectively and efficiently with the support of technology.

Central to our work are our partnerships within and outside of UNICEF that help enable new ways of programming so that national counterparts are able to make progress on national goals and priorities with the support of digital solutions.

This report and the achievements described within are a testament to that commitment to our wide-ranging partnerships. The examples of our work that you will read about in the following pages underscore the power of the collaborative approach that UNICEF – through technology for development – has taken to enable and deliver life-saving services and advance the rights of children.



Daniel Couture
UNICEF Chief Information Officer

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Part 1: Executive Summary

Technology for development and digital innovation – and the practice of exploring new ways of delivering programmes with new partners and technologies – is increasingly recognized as crucial to meeting the Sustainable Development Goals (SDGs) and the promise of the 2030 Agenda for Sustainable Development.

At UNICEF, the Technology for Development (T4D) function within the Information and Communication Technology Division (ICTD) provides advisory, implementation and quality assurance services to programmes on technology and digital innovation in UNICEF, and leadership on digital innovation. It helps to identify the most promising technologies and digital innovations for application in different contexts, supporting UNICEF programmes to adopt, adapt and scale up the approaches that are most useful, and to quickly identify those that are not. It also helps to institutionalize those technologies and digital innovations that show promise and are ready to be mainstreamed, in close collaboration with national partners, and in support of national goals and sectoral priorities, the UNICEF Strategic Plan 2018–2021 and the SDGs.

In the first three years of the Strategic Plan, ICTD has had a powerful impact on scaling digital innovation and accelerating results for children across the organization. To date, more than 1,400 T4D and innovation initiatives have been catalogued through INVENT – the global Technology for Development and Innovations Inventory – which provides a view of the universe of T4D initiatives by Strategic Plan Goal Area, Stage and Scale. These initiatives span UNICEF programmes across the world and address children's health, nutrition, education, protection, access to water, sanitation and hygiene, and inclusion.

In health, nutrition and early childhood development, UNICEF has harnessed the power of ICT to support countries to ensure that every child survives and thrives. That means bringing together a multi-sectoral team to use technology, digital innovation and human-centred design to strengthen health systems and the health system enabling environment. For example, in Pakistan, UNICEF has supported the government to use real-time monitoring to strengthen immunization services. The use of the open-source technology, RapidPro, enabled service delivery that helped providers vaccinate more than 37 million children against measles in 2018, according to government reports.

UNICEF also recognizes the acute need for innovation using real-time monitoring. Hard-to-reach rural communities are now able to report changes in WASH infrastructure functionality via SMS directly to government extension workers, improving the time it takes to make corrective improvements and deliver life-saving services.

The employment of ICTs is also integral to UNICEF's effort to provide every child with an equitable chance in life. In Yemen, that includes supporting the unconditional emergency cash transfer project, which is serving about one third of the country's population. Given the complexity of the operation, UNICEF is using Yumn, an information management system built to contain and secure the data of the project's 9 million beneficiaries. Since adopting Yumn, UNICEF Yemen has integrated several technology solutions – from real-time monitoring tools to a mobile application for grievance collection in offline areas – to enhance Yumn's capacities for reporting, management and risk mitigation.

In emergencies, UNICEF is using technology to enhance UNICEF's humanitarian action. When Mozambique was struck by two Level 4 cyclones in less than eight weeks in 2019, UNICEF worked with government partners to develop an information system designed to create data visualization and support real-time decision making. Less than 72 hours after the second cyclone made landfall, the government was able to use the system to release preliminary impact data and initial resettlement camps were mapped with up-to-date information about the number of displaced people.

T4D-supported approaches to programme delivery have also been a critical enabler of UNICEF's global response to the worldwide coronavirus (COVID-19) pandemic and efforts to mitigate the effects of the virus on the health and well-being of children, as well as recovery efforts. This report, drafted during the course of 2020, highlights a number of country COVID-19 response initiatives employing digital innovation and T4D approaches.

With ICTD's support, UNICEF is also exploring how frontier technologies can aid in both its humanitarian action and development programmes. For example, the organization has identified drone technology and drone-based services as a way to improve its work in global health and community resilience. In December 2018, UNICEF facilitated one of the first commercial vaccine deliveries by drone in a remote island of Vanuatu. The vaccine delivery covered almost 40 kilometres of rugged mountainous terrain from Dillon's Bay on the west side of the island to the east landing in remote Cook's Bay, where hard-to-reach children and pregnant women were vaccinated by a registered nurse.

The achievements for children described above and throughout this report were made possible by the thousands of people across UNICEF and its partner organizations who have contributed to and supported the application of T4D. Looking ahead, UNICEF will continue to invest in digital innovation and digital public goods such as those described here and enhance the organization's digital capabilities. That means continuing to standardize and scale the tools that will position T4D as a trusted programme partner; establish and expand partnerships with both the public and private sector; and build capacities for digital programming across the organization and the national partners we support.



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Part 2: About Technology for Development

The world is changing faster than ever before, and so too are the challenges facing its most vulnerable people. As conflict and displacement, disasters and climate change, urbanization and disease outbreaks grow increasingly complex and interrelated, new strategies and approaches to humanitarian response and development assistance are greatly needed.

Technology for development (T4D) and digital innovation – exploring new ways of delivering programmes with new partners and technologies with the support of information and communication technology (ICT) – is increasingly recognized as crucial to meeting the Sustainable Development Goals (SDGs) and the promise of the 2030 Agenda for Sustainable Development. This is the context in which UNICEF's Information Communication and Technology Division's T4D teams work with partners within and beyond UNICEF to achieve results for children.

Who We Are

Technology is generating important opportunities to advance results for children. The T4D function within ICTD provides advisory, implementation and quality assurance services to programmes on technology in UNICEF, and leadership on digital innovation.

As part of the global evaluation of innovation in UNICEF, in 2019, ICTD was recognized for its guiding role in enabling digital innovation. The evaluation recommended that leadership for digital innovation be housed within ICTD, while bringing together the various parts of UNICEF headquarters that are currently working on digital innovation.

Within the Innovation for Results cone, the T4D function is embedded within ICTD alongside the Office of Innovation, the Supply Division, the Office of Global Insight and Policy and the Office of Research. The T4D function works in close collaboration with national partners, and in support of national goals and sectoral priorities, the UNICEF Strategic Plan 2018–2021 and the SDGs.

ICTD recognizes that innovative digital solutions are useful only when they add value, accelerate service delivery, and expand reach and results for children; and scale is reached when the digital innovation, programming approach or solution is owned and led by a national government.

Box 1: Unpacking how T4D works

We take scalable innovations and technology solutions and deliver them, directly impacting the lives of millions of children around the globe, each year.

We enable technology and digital innovation in the field at scale, through our strong collaboration with programme teams, in-country technical advice and support to national partners, and engagement with United Nations agencies and other partners on technology and digital public goods. We serve as a unique resource, facilitator and a connector across programmes, planning and operations.

We help identify the most promising technologies and digital innovations for application across the globe, and support UNICEF programmes to adopt, adapt and scale up the approaches that are most useful, and to quickly identify those that are not.

We institutionalize and mainstream technologies and digital innovations that show promise, in support of national goals and priorities, UNICEF's Strategic Plan and the SDGs.

We support country deployment and testing of frontier technologies to make sure that solutions are designed and implemented with the best chance for scale and national ownership.

We help country offices develop and promote innovation and T4D strategies that align with the national governments' long-term development needs through dedicated strategic planning.

And we continuously build UNICEF and programme partners' capacities for T4D and innovation governance.

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