# Open-source financing: Where technology and the United Nations System can shine

By Christopher Fabian

**Christopher Fabian** is a technology executive who co-founded and currently leads Giga, a partnership between UNICEF and the International Telecommunications Union (ITU) that is working to connect every school in the world to the internet. His career has focused on how the intersection between new technology and global policy can solve the world's most pressing problems and advance humanity. He has previously advised two UN Secretary-Generals on new technologies, founded and scaled UNICEF's Innovation Unit, and worked with Heads of State and Fortune 100 CEOs to invest in responsible, forward-looking technologies. Christopher Fabian has built, invested in, and mentored technology companies from startup through multiple financing rounds and exits. He has led teams that developed some of the largest implementations of open-source software in the world, the first public-sector drone/unmanned aerial vehicle corridors, the first crypto-currency denominated fund in the public sector, and the Digital Public Goods Alliance with the Government of Norway. He has served as a Commissioner for the Lancet-Financial Times, an Honorary Scholar at the Chinese Central Academy of Fine Arts, a Board Member of the European Parliament's STOA Centre for Artificial Intelligence.[1] He was recognised by Time Magazine as one of the 'World's 100 Most Influential People' in 2013 and as one of WIRED's '25 People Changing the World' in 2019.

*The views expressed in this article are those of the author and do not necessarily reflect the views of UNICEF or the International Telecommunications Union.*

## Introduction

The first half of 2025 has seen United Nations agencies, funds, and programmes making massive cuts to their work, relocating staff to less expensive locations, and struggling to balance the needs of vulnerable populations with significantly decreased resources. Giga a is collaboration between UNICEF (the United Nations Children's Fund), the world's leading organisation for children and the International Telecommunications Union (ITU), that has structured its funding along new and resilient lines. In this article, we will share some of the lessons learned from our work on technology-driven transparency, adaptive partnerships, and where shared financial ownership can create new windows for development funding.

Giga began in 2019 as a collaboration between two agencies with a very specific purpose: To connect every school in the world to the internet. We built our funding and partnerships network around that goal and used technology as a differentiator to bring new partners into our work. More than 1.8 billion people do not have access to the internet and without connectivity it is very difficult for young learners to get access to the tools and information they need for the future.[2]

As of 2025, Giga is helping governments connect schools and health centres in more than 40 countries across most emerging market geographies.[3] We have mapped more than 2.2 million schools, we monitor connectivity in more than 90 thousand schools and have helped mobilise more than US$ 1.6 billion for connectivity. These efforts have helped governments connect more than 30 million children to the internet.

This support is not based on traditional grant funding alone but comes from an approach that aligns catalytic capital with government and market incentives for financing. The distinction in this article will be that 'funding' refers to grants and donor money with no expectation of return, while 'financing' refers to money that is deployed while seeking an active, even if below market-rate, return in a more traditional investment sense.

## What is 'open-source financing'

Traditional UN funding models rely on a combination of assessed contributions from Member States, or depending on the agency, fund, or programme, also access to earmarked donor money, and programmatic grants. Donor money and grants are often tied to specific projects or political cycles. This type of mechanisms has historically provided stability, but it can create fragmentation, inefficiencies, and sustainability challenges, particularly at moments where traditional donors are re-assessing their aid priorities.

Giga has tested an approach to build its cashflow through an 'open source' lens. Early on, in our work with advisory partners like Softbank Investment Advisors, we took the view that 'open-source financing' means treating financial support, both grants and investment capital, the way open-source software treats code development. It is a shared, adaptable resource rather than a closed, proprietary system. In the same way that open-source software allows multiple developers to contribute, improve, and customise solutions, open-source financing enables multiple funding sources from governments, private investors, development banks, and philanthropic partners who can co-invest in a shared goal. They do this without necessarily sharing their money with each other or setting up a pooled fund or investment vehicle. We came to this conclusion because we tried, unsuccessfully, to set up a variety of mechanisms to gather the hundreds of millions of dollars needed for global school connectivity.

During the last six years we have attempted to set up a hosted fund by way of pooling donor money, a Giga Bond – using donor and private capital to 'supercharge' government investments in infrastructure, and a Giga Fund – with purely private capital to make investments in internet service providers. While the intent of all three of these ideas was good, and we explored them fully, we were not able to execute any of them within the framework of the organisations and partnerships that we had in place.

As a result of these learnings, Giga is structured in a way that allows different funders and financiers to see, track, and build upon data about where needs exist, and where investments are happening.

We have worked to create a marketplace where money can find its own fit. A government can co-finance school connectivity with private telecom providers, while development banks are using our national connectivity maps to monitor their investments and see where schools are coming online. These partners all subsequently add their own data into Giga – creating a common 'open source' pool of information which reduces the risks of redundancy, inefficiency, or political influence.

In some countries, we are prototyping a specific example of this way of thinking. Giga's work on Connectivity Credits creates a sort of marker or token which can be exchanged along the value chain – from investors to providers of internet services – and can allow for tracking and recognition of results similar to a carbon credit.[4]

John Hendra, former UN Assistant Secretary-General who worked with the UN General Assembly's reform of the United Nations Development System articulated the challenge facing the system in the 2024 Financing the UN Development System: Resourcing the Future report saying: 'We must look across the whole system for comparative advantage and find ways to incentivise genuine complementarity'.[5] The close collaboration between the International Telecommunications Union, a smaller technical agency and UNICEF, a larger field-based one, with the addition of independent platforms where capital can flow — represents that type of complementarity.

To date Giga has not found a perfect formula, but we have been openly testing and refining six elements underlying the idea of 'open-source financing' for telecommunications which may hold lessons for others who are interested in doing similar work.

## Open source is not just for techies

Since its inception, Giga's leadership made a conscious decision to operate within an open-source culture. This was highlighted first in the 2019 Broadband Commission for Sustainable Development meeting, where technology leaders such as Greg Wyler, founder of OneWeb, and the O3b Networks and venture capitalist Bill Tai, Chairperson and Founder, ACTAI Global, voiced their support for the creation of an open-source map of every school's connectivity status.[6]

Their backing, and subsequent alignment with a range of technology companies, came from the promise that Giga's map, then called 'Project Connect' and supported with funding from Greg Wyler would be open source.[7] An open-source framework allows any government, company, or local innovator to access the code and the data freely. This transparency accelerates investment by reducing uncertainty. Telecommunications operators and small internet service providers (ISPs) can see where to expand. Donor governments know where their money goes and investors can see the opportunities.

The UN Secretary-General's Global Digital Compact calls Giga a 'stepping-stone' towards connecting all schools and now many health facilities to the Internet.[8] In section 14, under the heading 'Digital public goods and digital public infrastructure', the report lifts that open approaches foster trust and align with the broader goals of digital development.[9] When data and code are shared, no single actor can monopolise the system.

## Fewer layers are better

Giga emerged from two UN agencies with distinct operational cultures. UNICEF is renowned for its field-based programming in health, education, and child protection, whereas the International Telecommunications Union is the specialised agency for telecommunications regulation and policy.

Traditionally, coordinating across two sets of legal, financial, and administrative systems could slow a project to a crawl. Giga's leadership chose to form a single, jointly managed team with a lean reporting structure, and no heavy governance, thus minimising the layers of approvals.

Greater agility and speed enable the emerging group to share capacity for certain procurements, the hiring of staff and the creation of partnerships. Giga works in short cycles, reinforcing its credibility as a 'start-up inside

the UN'. It remains subject to UN financial rules, ensuring accountability to donors and Member States.

## 'Be wi-fi'

The way the Giga Initiative is operating can be compared to the reported vision and philosophy of the late Hong Kong-American martial artist, actor, filmmaker, and philosopher Bruce Lee who famously said: 'Empty your mind, be formless. Shapeless, like water. If you put water into a cup, it becomes the cup. You put water into a bottle, and it becomes the bottle. You put it in a teapot, it becomes the teapot. Now, water can flow, or it can crash. Be water, my friend.'[10]

In its work, Giga aims to 'be wi-fi'. Practically, this means operating in a flexible manner interoperable, and for each funder or financier allowing the data and work to 'take on the form' that is needed. This allows different actors to coordinate better, without needing centralised control of a common pool of money.

Instead of establishing a single new office in a national capital, Giga issued a request for proposals to major cities around the world for hosting. This request was uniquely posted on the then social media platform formerly known as Twitter (now X) for any city to apply. Ten cities indicated their interest of which Geneva in Switzerland and Barcelona in Spain emerged as ideal hosts. Geneva offered proximity to the broader UN system and international finance opportunities, while Barcelona boasts a technology-oriented ecosystem and a local government keen to attract talent. Building this distinctive dual-city model is already proving its value. Swiss foundations are supporting the work of Giga in Geneva, and Spanish companies like MasOrange are helping build complex technology frameworks like the Connectivity Credits platform in Barcelona.[11]

Since its inception, high-profile philanthropic supporters and technology entrepreneurs have recognised Giga's modular and open approach as a differentiator. Bill Tai's early advice that 'good data attracts more data', pointed us in the right direction. Giga is creating and regularly attracting more data as well as partners. As the technology underlying our mapping and other work is fully open source, participating countries do not need to abandon its own methods or tools. Instead, they establish their 'connection to Giga' as a shared goal. Governments, businesses, and investors can align around a single, publicly visible goal.

## Governments must ultimately lead

Multi-stakeholder partnerships are building Giga, while our experience reinforces the principle that national governments remain the ultimate guarantors of sustainability.

Connectivity is not a purely technical question, but also a deeply political outcome. Ministries of Education, Health, Finance, and Telecommunications all have a stake in how internet bills get paid, bandwidth is allocated, and connectivity integrates into digitalisation plans.

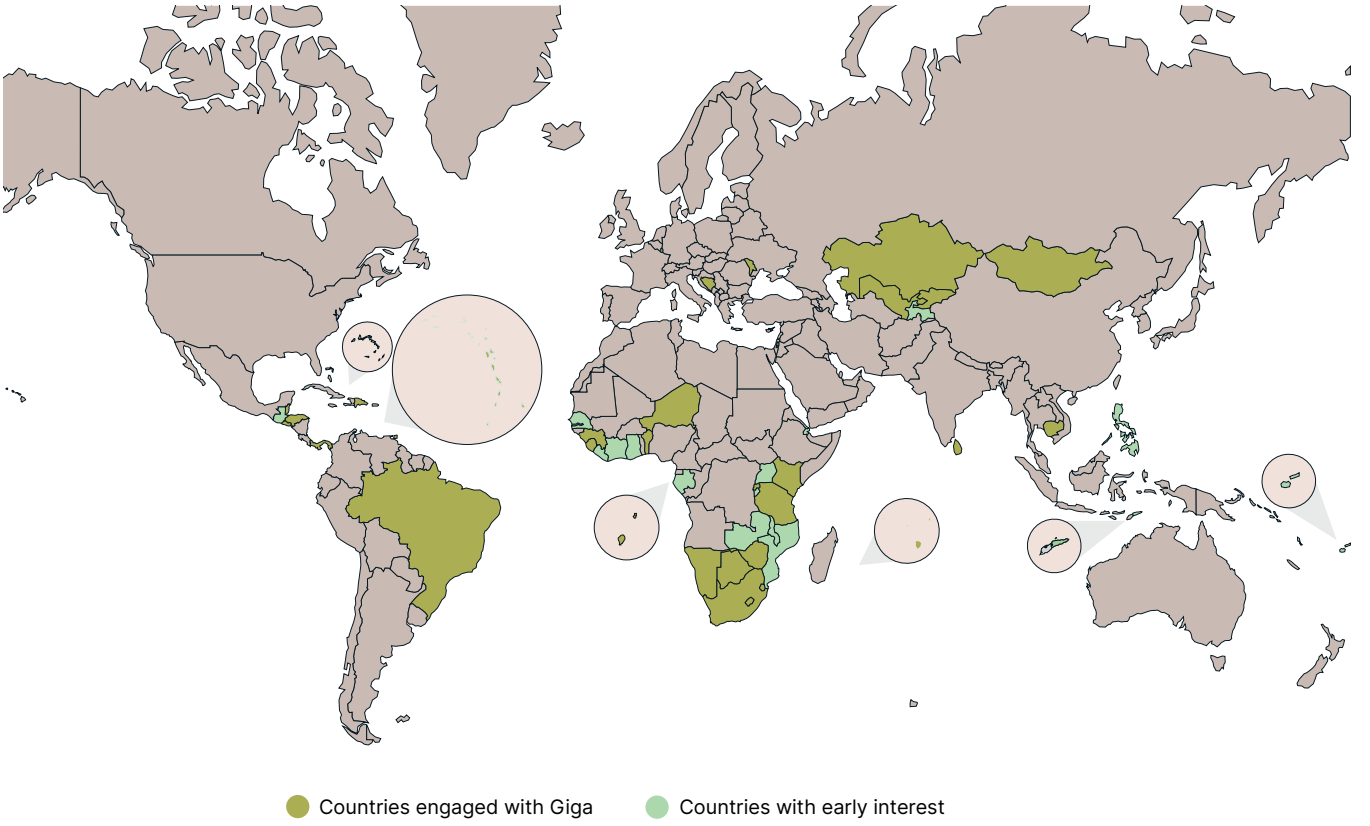
At the outset, Giga financed school connectivity. However, our limited resources could not support at-scale infrastructure projects. Connecting all the schools in a country can cost, at a national level, upwards of US$ 100 million.

Currently, Giga helps countries to incorporate school and health centre connectivity targets into their national development plans and budget lines. It also supports monitoring the public contracts via our real-time map.[12] Giga reduces its involvement once connectivity is entrenched in a ministry's annual budget and the local private sector can maintain infrastructure profitably.

It builds longer-term governmental ownership by working directly through UNICEF's country offices to create relevant technical support and assistance. In addition, Giga uses the ITU's global network of regulators to ensure that policy, planning, and regulation is focused on connecting the hardest to reach facilities.

For example, Giga has helped governments create models for both funding and financing school connectivity that has resulted in an approximately 50% decreases in the cost of connectivity for schools in Rwanda and Kyrgyzstan, thereby freeing up money that governments would have otherwise spent on this budget item.

**Figure 1: Earmarked development assistance and ownership**




Source: GIGA

## No pain-free growth

The UN, like many large institutions, often struggles to admit when an initiative has underperformed. At the start of Giga in 2019, Christopher Fabian, as one of the programme's co-leads, sought guidance from the UN Secretary-General on the possibility of pushing risk boundaries. Both Antonio Guterres and the Executive Director of UNICEF encouraged trying big ideas, even if some would fail publicly. 'Just do something bold and different', were the encouraging words from the Secretary-General.

To date Giga has been public about its failures. One example is an effort in Honduras, where local businesses paid for school internet in exchange for access to the Wi-Fi network outside school hours. While it seemed promising at first with 40% of the targeted schools getting access, it later failed, ending with 15% of the participating schools losing service within a year due to unclear contracts or wavering community participation.[13]

After featuring this and other initial failures in our 2024 Annual Report and discussing them with our partners, Giga refined the Honduras model to establish a more robust and viable working approach that is now is also being used in Uzbekistan.[14]

In all, there is visible progress from iterative problem-solving and community feedback align with our open-source principles. There is no need to 'move fast and break things', but create space to learn quickly and transparently by 'building deeply and learning things'.

## A final reflection

The future of UN financing will require approaches that maximise efficiency, transparency, and co-ownership. The experience at Giga suggests three principles that could inform broader financing strategies: (1) Open-source funding models reduce duplication and attract both public and private investment. (2) Flexible, government-led structures ensure sustainability beyond donor cycles. (3) Modular, real-time, multi-stakeholder data can reduce fragmentation and align diverse types of money toward a common goal.

In these times, choosing paths that are 'bold and different' offers lessons not just for connectivity, but for the broader UN system.

**Endnotes**

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