

What is ICT4D?

ICT4D: Information and Communication Technologies for Development

Information and Communication Technologies for Development (ICT4D) is the use of computers, phones, radios, the internet, and other technologies to support socio-economic development, international development, and human rights. Although an estimated 40% of the world's population has less than USD \$20 per year to spend on phones and other gadgets (Hilbert, 2010), technology has the potential to bring so many advantages that civil society organizations (CSOs) are working to bring ICT4D into the mainstream.

Here are some examples of what you can do with ICT4D:

- ❑ **Create, share, and reference maps.** Geographic Information Systems lets you represent your data visually, make projections, and coordinate aid. Crowd-sourcing makes mapping interactive.
- ❑ **Train.** Internet and software-based learning can replace expensive in-person training workshops. The range of possibilities here runs from distance postgraduate degrees, to free online courses, to waterproof “talking books.”
- ❑ **Collect data.** Use basic phones, smart phones, iPads, barcode scanners, cameras, video cameras, and voice recording tools and applications to collect, compile, and analyze quantitative and qualitative data and create automatic reports.
- ❑ **Communicate.** Use instant messaging, Twitter, and email to remind clients of their next vaccine appointment, to make announcements, to advocate for behavior change, and to provide confidential counseling to clients who are remote or otherwise unable to come into the health clinic.
- ❑ **Reach under-served populations.** In some countries, doctors and nurses are providing check-ups and consultations via video phone. In many places the radio and television are used to share key messages. Entire libraries can be contained on small disks or be accessed via a tablet computer and an internet connection. The ways ICT4D can serve the under-served is limited only by your imagination.
- ❑ **Send and receive mobile money.** Money kept in cell phone-based mobile bank accounts is increasingly accepted by vendors and is a quicker and safer alternative to cash payments. It is also helpful to people who cannot maintain a conventional bank account.
- ❑ **Support economic development.** Specialized software and an internet connection are almost all you need to record and sell music, run an import-export business, post vacancies and search for a job, network with people in your industry, research the market, seek out investors, and grow a value chain.
- ❑ **Provide healthcare services.** It is a challenge just to keep up with all the ICT-based innovations that are making healthcare safer and more affordable. This includes information management systems, algorithm software, improved laboratory techniques and testing, and technologies for safer deliveries.

Appropriate technology

In the largest global study ever conducted on ICT4D, 81% of NGOs surveyed rated text messaging as the most effective channel for reaching beneficiaries (Accenture and NetHope, 2013). However, the same study found that while 96% of Ugandans regularly listen to the radio, only 39% have access to a mobile phone. This highlights the importance of making sure you are using the *right technology* in the *right place*, and for the *right activity*.

In order to make sure you are using the best and most sustainable tool for your context:

1. Understand and build on existing infrastructure
2. Augment existing economic activity
3. Seek out relevant private sector partners (phone companies, radio stations, etc.)
4. Collaborate and consult with local and national government
5. Involve beneficiaries at every stage, from the very beginning
6. Use an assets-based rather than a problem-based approach
7. Make sure you have adequate budget and support staff
8. Consider environmentally-friendly solutions, such as solar and hydropower
9. Analyze all interventions through a justice and gender lens before beginning
10. When in doubt, choose the simpler solution

How to begin

Remember that ICT4D is a means to an end, and not an end in itself. Do not think of it as an objective. It is a *tool*. Do project design as you normally do – look at needs, assets, challenges, and donor priorities; consider your scope; talk with stakeholders; and create a problem and solution tree. Then, when you have arrived at the *“how are we going to do this efficiently?”* question, consider which – if any – ICT solutions could apply.

Here are some resources to get you started:

[Asia and Pacific Training Centre for ICT4D \(United Nations Development Programme\)](#)

This is an informational hub that contains reports, tools, links, and case studies on ICT4D to help you understand the breadth of what is possible and what works.

[NetHope Solutions Center](#)

This website brings together numerous resources on using ICT for development.

[Why Technical Projects Fail: Avoiding Disaster \(Harvey Mudd College\)](#)

This document gives guidance on how to plan appropriately for using ICT in projects.

[The mHealth Guide for Newborn Health](#)

This provides guidance on how to use ICT to support newborn health.

[The Mobile Health Working Group](#)

This is the website of CSOs that are using mobile solutions to strengthen healthcare services.

[Mobile Technology Handbook \(Pact\)](#)

This is a useful handbook on how to design and implement an ICT project.

[Cutting-edge projects to boost government accountability and citizen engagement](#)

Go here to read about the latest ICT4D winners in an annual global challenge.

[ICT in Agriculture](#)

This website brings together numerous resources on using ICT for rural development.