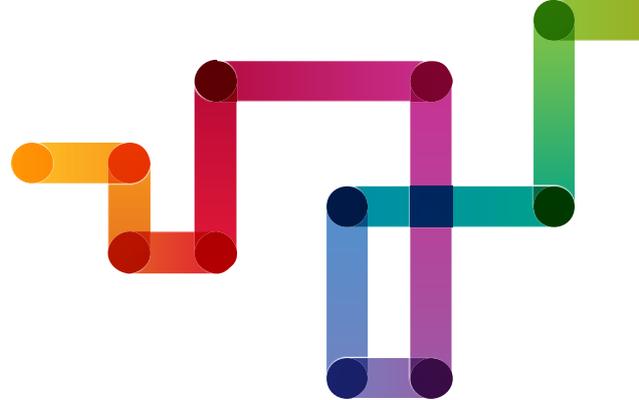Economic Growth

Connecting the world

Modern communications technologies have transformed the way we live. How can we ensure they deliver similar benefits to poor, marginalised communities in the developing world?

Our vision

Access to the internet, in particular through smartphones, is now ubiquitous - even in the poorest countries, smartphones and internet cafés are now common. But many of the most useful services - including e-commerce, sharing economy platforms and online access to public services - are tailored to the needs of rich countries. In the developing world, they are limited or non-existent. Our vision is to bring tailored, relevant online services to these newly connected communities, so they benefit from the communications revolution.

The challenges and their context

Mobile phones are no longer the preserve of the rich. Half the world's population already has a cell phone, by 2020 this should have reached 60%. By then, half the world's population will have a smartphone. Global growth in connections is levelling off, not because people cannot afford to get connected, but because so many countries have already reached market saturation.

The market has delivered huge and robust mobile networks, even in remote regions of low-income countries, while the cost of handsets is plummeting. Today, just 13% (and falling fast) of the world's population lives out of range of a mobile network. Getting online has never been cheaper.

But networks and handsets are just platforms. What really makes them useful is accessing services through them. Here, the picture is less rosy - the UN's *Millennium Development Goals Report* of 2015 describes a growing digital divide between the developing and developed worlds, drawing attention in particular to the lack of locally-relevant online content and services. The Economist Intelligence Unit frames the problem slightly differently - the divide is narrowing (because more people are coming online) but deepening, they say - lack of access to relevant services is becoming a serious problem in a world in which online is the default option.

The challenge of ensuring everyone on Earth benefits from the digital revolution is a huge and multifaceted one. There have been numerous initiatives - from governments, non-profits and businesses - to make a difference. One recurring problem, though, has been the failure to make changes that stand the test of time.

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Initiatives to subsidise devices or access, even if they work, need to be sustainable and generate income in the long term if they are not to disappear. Research by handset manufacturer Huawei notes it is "embarrassingly easy to find pilots that have never scaled up, whether government-, corporate- or NGO-run". A Western start-up model of 'minimum viable product' and 'failing fast' is problematic when poor people are relying on - and may have invested in using - a product.

As well as better digital services, there also needs to be consumer demand and ability to use them.

Here, issues of language, literacy and digital literacy are all-important - as is looking at the issue through the lens of gender (some countries have dramatically lower rates of phone and internet usage among women).

Making locally-relevant digital services available, useful, affordable and sustainable - in a form which is accessible and appropriate is a huge challenge, but not an impossible one.

Current innovation

- M-Pesa and other e-money services have provided phone-based transaction services in the developing world to people without bank accounts.
- Free Basics / Internet.org is an initiative by Facebook to provide free mobile access to a selection of (cut-down) websites.
- Android One is an initiative by Google to partner with phone manufacturers to provide cheaper smartphones.
- The One Laptop per Child initiative provides rugged networked laptops and tablets to schoolchildren in developing countries.

The potential for challenge prizes

- Develop an authentication system using mobile phones as an ID (for online and offline transactions).
- Design a smartphone interface not based on legacy desktop concepts (like icons and menus) which is easily navigable by people who have never been online.
- Design an entirely voice-driven smartphone interface which allows illiterate users to get online.
- Develop a secure peer-to-peer system for sending remittances.
- Create a platform for selling financial services other than payments, for instance insurance and credit, via mobile phones.

Prepared for the Nesta Challenge Prize Centre by Olivier Usher. Last updated 12/02/2016.