

Computers, mobiles and the Internet: can they make a difference to the lives of poor people?

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Science
Festival



17th March 2011



How do we understand poverty?

Both in our own
countries and
elsewhere...

And what do we do about it?

‘Development’: economic growth will eliminate poverty...

- Dominance of the twin rhetorics of liberal democracy and the free market
 - Particularly after the collapse of the Soviet Union around 1990
- Prominence of UN Millennium Development Goals (2000)
 - Espoused the belief that poverty can be eliminated
- Builds on the so-called Washington Consensus (Williamson, 1990)
 - Macro-economic discipline, free market and openness to the world

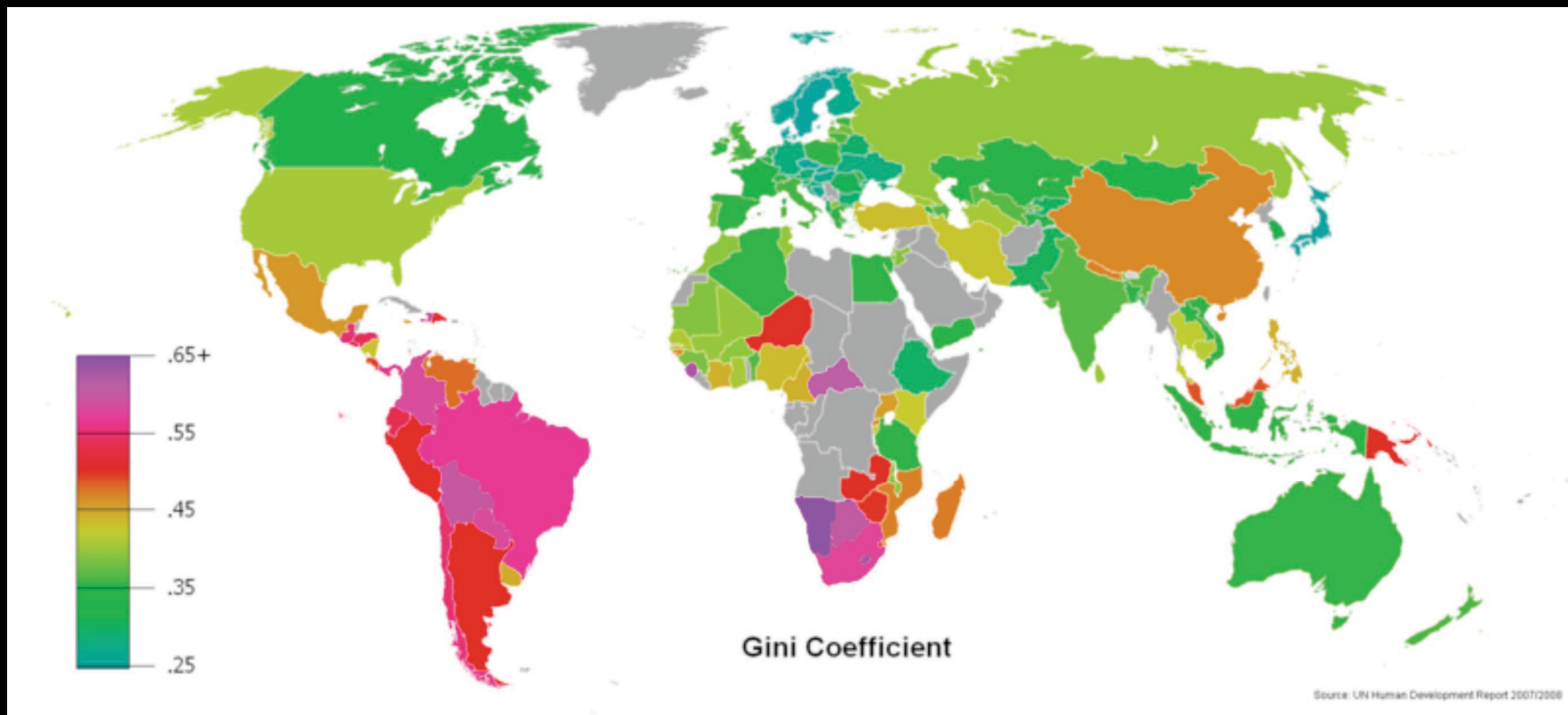


A belief that poverty really can be eliminated.

- Economic growth will lift people above the \$1 a day threshold
- Need for good governance (i.e. democracy)
 - So that growth can occur
- Based on absolute notions of poverty



But...



Gini Coefficient from World Human Development Report 2007-8

There are other ways of understanding poverty

- Relative poverty
 - Will not necessarily be changed by economic growth
- Alternative notions of development as:
 - Social equity
 - Freedoms (Sen)
 - Political Justice

This lecture is about how ICTs can transform the lives of poor people

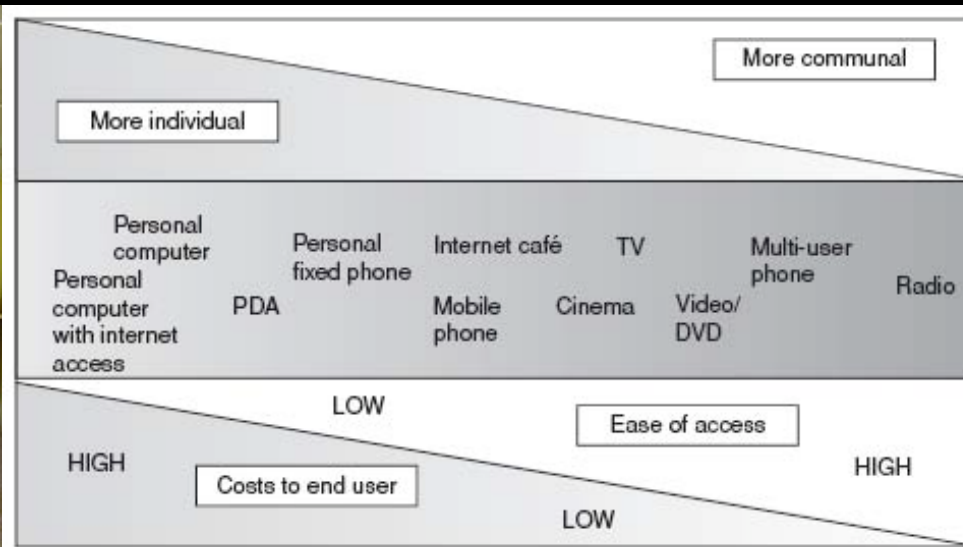


And why they are not yet really doing
so...

My own particular interests

Young people at risk of living and
working on the streets, and people
with disabilities

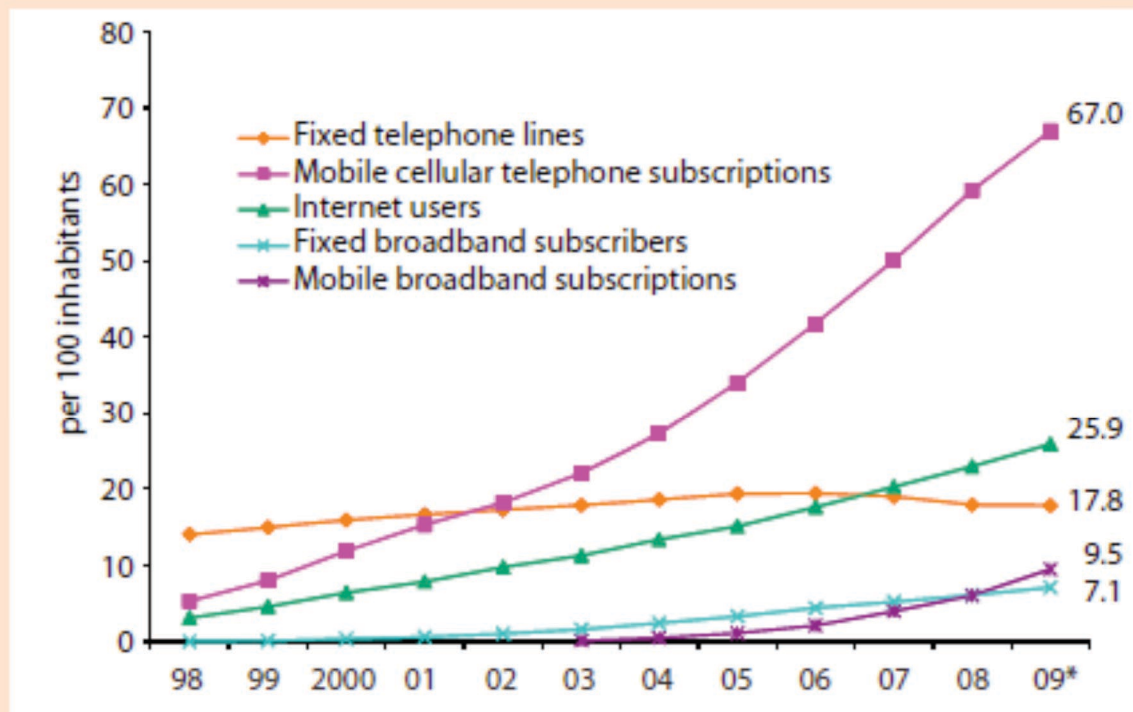
What do we mean by ICTs



Examples...

Global ICT trends

Chart 1.1: Global ICT developments, 1998-2009



Note: * Estimates.

Source: ITU World Telecommunication/ICT Indicators database.

How can these be used by poor people: an outline

- Challenges with the use of ICTs
- Examples of work in which I have been involved
- Mobiles: success and challenges?
- Looking to the future



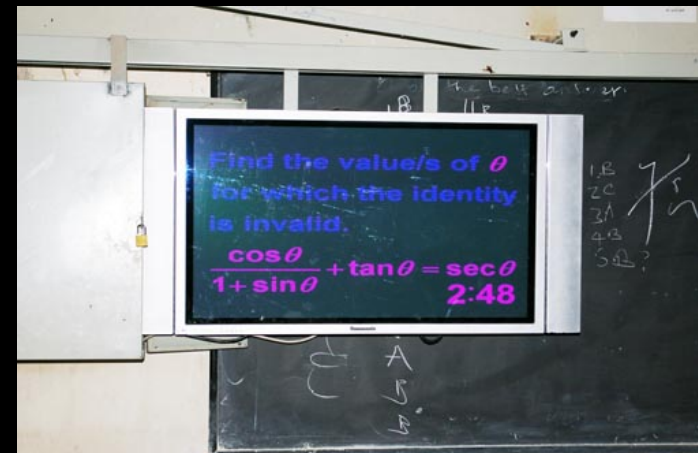
OLPC



- Often held up as a great example of success
- But
 - Rolled out separately from other initiatives
 - ‘Educational model’ based on avoiding teachers
 - Has little ‘educational’ content or structure
 - Negligible monitoring and evaluation
 - Huge cost
 - How to decide who gets one
- ‘Top down’ and ‘externally driven’

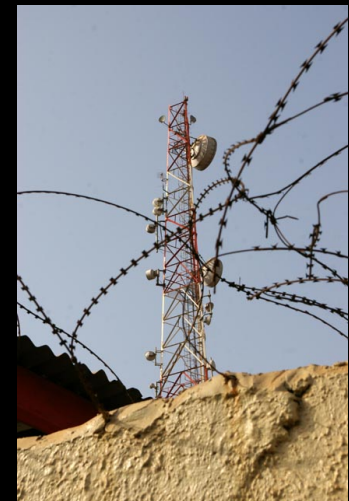
Ethiopian plasma screens

- Problem of poor quality teachers
- Replaced by plasma screens and satellite links
- Streaming of imported content
 - Initially no recording
- Alienation of teachers



There are many problems with ICT4D

- Often led by 'outsiders'; D4ICT !
- Technologies in search of a purpose
- Do not consider user contexts and needs
- Not integrated into national policies
- Forget energy demands
- Partnerships dysfunctional
- Pilot project based
 - Scale
 - Sustainability





Not this....



But...

Contrasting approaches to ICT4D

- Top-down
 - Innovative ideas development in Europe and north America
 - Technologically led
 - ‘Applied’ to development contexts
- Bottom-up
 - Needs based
 - Led by poor people themselves
 - With ‘our’ support



Examples of some of the work
in which we have been
involved....

Education and ICTs: Ethiopia (2002-2005)

- Imfunido working with Forum on Street Children in Ethiopia
- Multi-stranded
 - E-learning centre
 - Girls club
 - Drop in centre
- But lack of continued donor partnership


Education and ICTs: Philippines (2004-present)


- eSkwela: development of non-formal digital curriculum
 - For out of school youth
- Importance of certification
- Programming by deaf programmers
- UNESCO award


Health: Malaria information in Tanzania

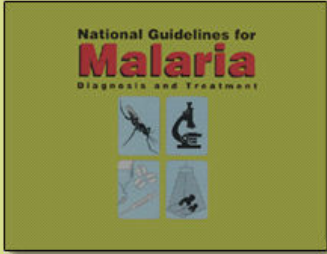
imfundocd


Malaria Diagnosis and Treatment Guidelines


 Malaria Video

 Malaria Pamphlets

 Documents Browser

 PDF files of Documents

 Install PDF Reader

 Acknowledgements

Click on boxes to select option

A mothers story

- 1 - Early and effective case management
- 2 - Access to quality medicines and knowledge of suppliers
- 3 - Insecticide Treated mosquito Nets (ITNs)
- 4 - Referral of malaria cases
- 5 - Intermittent Preventive Treatment
- 6 - Training and supervision
- 7 - Play all videos



<< Back

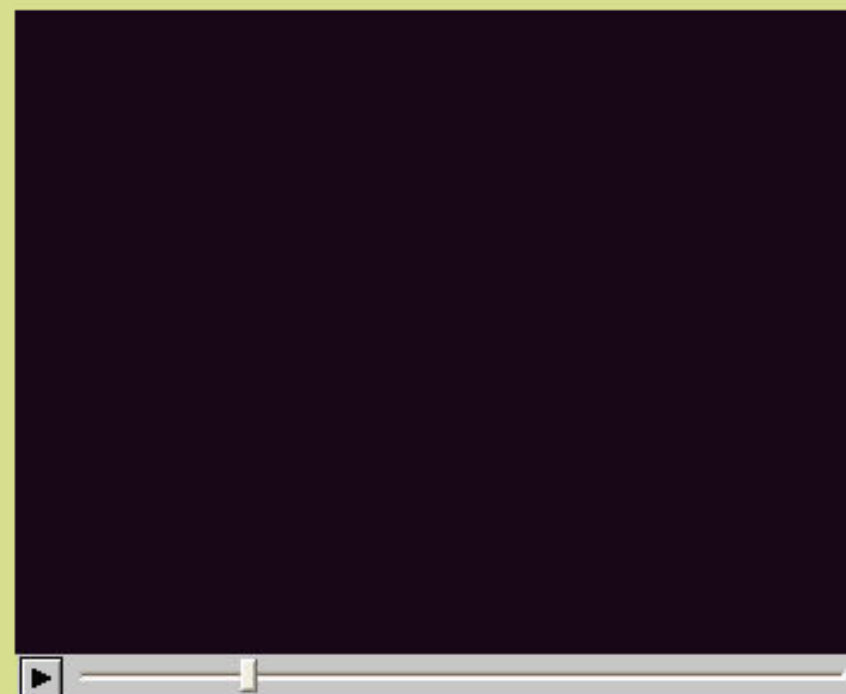
FILM : A MOTHER'S STORY

The film included on this CD was made in Kenya in 2000 for the National Malaria Control Programme so that it could be shown at the annual Roll Back Malaria (RBM) Global Partners Meeting, held that year in Geneva. The aim was to provide a reality check for the delegates so that they could better understand the enormity of the task set for RBM.

Tanzania and Kenya have both moved forward since the film was made. In Tanzania SP is now widely available in Government clinics and the 'Duka la dawa' of urban and rural communities; Chloroquine has been largely withdrawn from retail outlets; enough SP is supplied to districts for all pregnant women to have access to free IPT; and Insecticide Treated mosquito Net (ITN) and 'Ngao' sales, and use, are increasing dramatically. However, many of the underlying systematic problems, that are responsible for the tragic outcome illustrated in the film, still need to be addressed.

We have included 'A Mother's Story' on the malaria guidelines CD for Tanzania as a reminder of the reasons for the change in anti-malaria drug policy and to illustrate why the recommendations in the guidelines are so important. It should serve to focus the efforts of all those who have an interest in reducing the burden of malaria disease and improving the well-being of Tanzanian children and their mothers. The story highlights the need for action, at all levels, to:

*Improve early case recognition



<http://www.gg.rhul.ac.uk/ict4d/Video%20clips/m03.mpg>

OER and LMS

The image displays three overlapping web pages, illustrating the integration of Open Educational Resources (OER) and Learning Management Systems (LMS).

Top Left: WordPress Profile (Tim Unwin)

- Name:** Tim Unwin
- Location:** Global
- Interests:** Especially interested in high level global ICT4D strategy, and working with street children and those with disabilities to identify how best ICTs can help them change their lives.
- Contact email:** tim.unwin@hul.ac.uk
- Telephone:** +44 1784 443615 (Royal Holloway Office)
- Website:** <http://unwin.wordpress.com>
- About me:** UNESCO Chair in ICT4D, Director of the ICT4D Collective, and Professor of Geography at Royal Holloway, University of London (<http://www.rhul.ac.uk>)
- Chair of the Commonwealth Scholarship Commission:** To find out current status - <http://twitter.com/unwin>

Top Right: ICTD 2010 Website

- Event:** 13th-16th December 2010
- Location:** London
- Programme:** Welcome to ICTD2010 – one of the most exciting ICT4D-related events of 2010.
- Latest News:** Sir Tim Berners-Lee agrees to be a Keynote Speaker
- Registration:** The conference is the latest in the series of highly successful international ICTD conferences held in Doha (2009), Bangalore (2007) and Berkeley (2006). It aims to provide a forum for researchers, practitioners and all those with interests in the use of information and communication technologies in development practice to meet to discuss the latest research advances in the field.
- Building on the success of its predecessors, ICTD2010 will combine two days of plenary peer-reviewed paper sessions, with two days of workshops, panel sessions, discussion forums, demos and sessions in both Spanish and French. A particular feature will be the opportunity that it will provide for participatory involvement from people from a diversity of backgrounds.**
- ICTD2010 is being hosted by the UNESCO Chair in ICT4D and the interdisciplinary ICT4D Research Centre at Royal Holloway, University of London's magnificent campus situated only 20 minutes from London's Heathrow airport.**

Bottom: Moodle LMS Course Page

- Course Title:** Welcome to the ICT4D Undergraduate Moodle Environment 2008-2009.
- Topic outline:**
 - 1. An introduction to the course. This lecture is designed to provide you with an overall understanding of the aims and learning methods for the course, as well as an introduction to the learning resources that you will be expected to explore.
 - 2. Theoretical Context. Provides an overview of the theoretical frameworks relevant for understanding the role of information and communication technologies in 'development'.
 - 3. Web design. An introduction to the web-design assignment.
- Recent Activity:** Activity shows Friday, 20 June 2009, 09:13 AM. Full report of recent activity... Nothing new since your last login.
- Administration:** Turn editing on, Assign roles, Groups, Backup, Restore, Import, Reports, Questions.

Mobiles: successes and challenges

Solutions for all business types



Enterprise

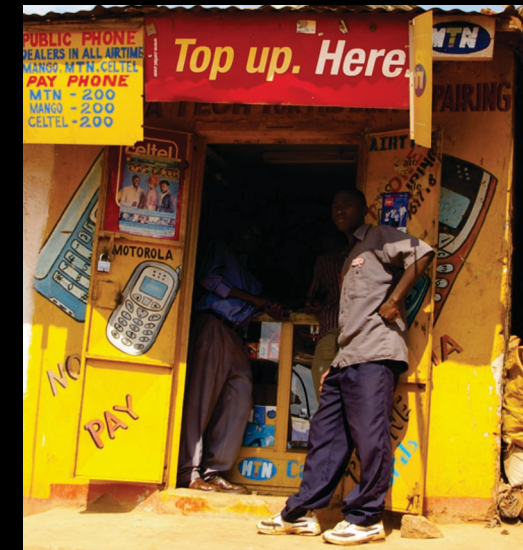
Improve productivity and customer satisfaction with solutions that offer advanced functionality and IT control.

> [Find out about BlackBerry solutions for the enterprise](#)



How can mobile phones benefit poor people?

- What do you use your phones for?
- Mainly used for social purposes
 - And people willing to pay much for this
- Recent developments
 - Mobile banking
 - SMS messaging
 - FrontLine SMS
 - Crowd sourcing
 - Ushahidi





Mobile successes: Kiwanja and Frontline SMS



FRONTLINESMS ALLOWS YOU TO TEXT MESSAGE WITH LARGE GROUPS OF PEOPLE ANYWHERE THERE IS A MOBILE SIGNAL.



A lack of communication can be a major barrier for grassroots non-governmental organisations (NGOs) working in developing countries. FrontlineSMS is the first text messaging system created exclusively with this problem in mind.

By leveraging basic tools already available to most NGOs – computers and mobile phones – FrontlineSMS enables instantaneous two-way communication on a large scale. It's easy to implement, simple to operate, and best of all, the software is free. You just pay for the messages you send in the normal way.

Mobile successes: Ushahidi and crowd sourcing



The image displays the Ushahidi website and its mobile application. The website header features the Ushahidi logo (a globe with a network pattern) and navigation links for HOME, ABOUT, and THE PLATFORM. The main content area is titled "Information Collection, Visualization, & Interactive Mapping" and describes the platform's mission: "Ushahidi builds tools for democratizing information, increasing transparency and lowering the barriers for individuals to share their stories." A prominent red button labeled "Learn More" is positioned below the text. To the right, a screenshot of the website's interface for Haiti is shown, featuring a map with red circular markers indicating incident locations. The markers are labeled with numbers such as 16, 195, 242, 1862, and 324. The interface includes a sidebar with a "CATEGORY FILTER" and a list of categories: 1. URGENCES | EMERGENCY, 2. URGENCES LOGISTIQUE | VITAL LINES, 3. PUBLIC HEALTH, 4. MENACES | SECURITY THREATS, 5. INFRASTRUCTURE DAMAGE, 6. NATURAL HAZARDS, 7. SECOURS | SERVICES AVAILABLE, and 8. AUTRE | OTHER. A mobile phone is shown in the foreground, displaying the Ushahidi mobile app interface, which mirrors the website's map and filter functionality.

Ushahidi

HOME ABOUT THE PLATFORM

Information Collection, Visualization, & Interactive Mapping

Ushahidi builds tools for democratizing information, increasing transparency and lowering the barriers for individuals to share their stories.

Learn More

Haiti
The 2010 Earthquake in Haiti

HOME REPORTS SUBMIT INCIDENT GET ALERTS CONTACT US HOW TO HELP ABOUT

FILTERS: REPORTS NEWS PICTURES VIDEO TOOLS VIEWS: LIST-ONLY

Category Filter

- ALL CATEGORIES
- 1. URGENCES | EMERGENCY
- 2. URGENCES LOGISTIQUE | VITAL LINES
- 3. PUBLIC HEALTH
- 4. MENACES | SECURITY THREATS
- 5. INFRASTRUCTURE DAMAGE
- 6. NATURAL HAZARDS
- 7. SECOURS | SERVICES AVAILABLE
- 8. AUTRE | OTHER


16 195 242 1862 324

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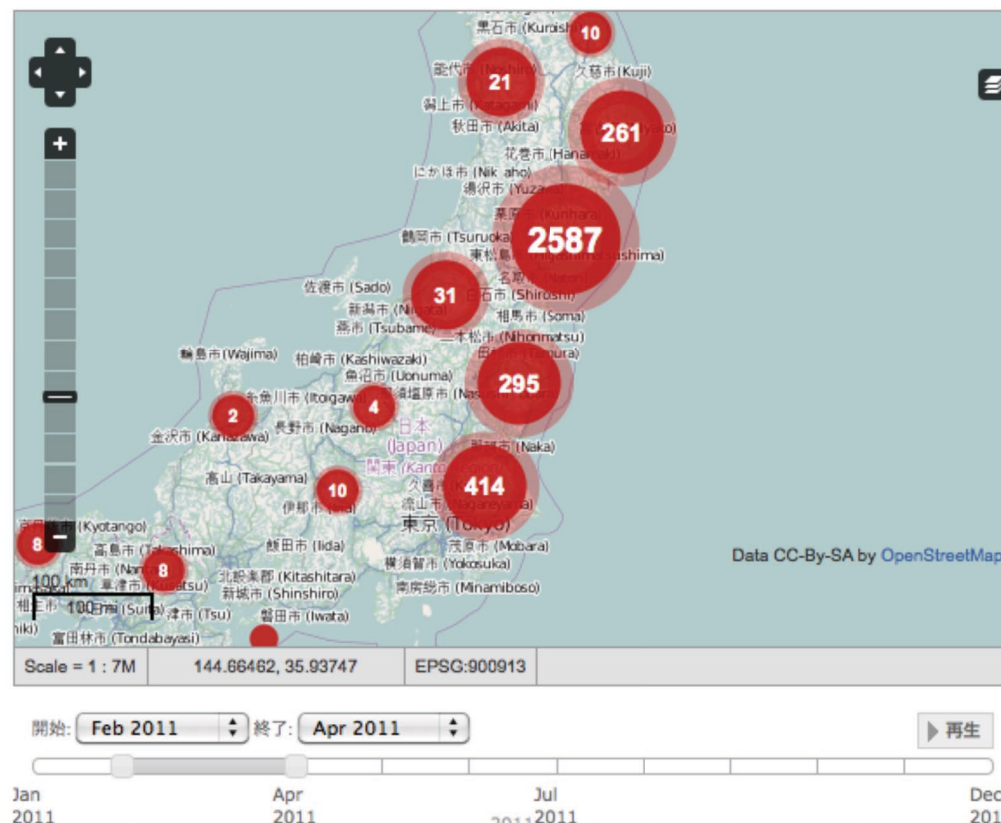
Ushahidi in Japan today

ここは、みんなで震災情報を提供し、みんなが利用する場所です。使い方はこちらを参照下さい

[フィルター](#) → [レポート](#) [ニュース](#) [写真](#) [ビデオ](#) [すべて](#)

[VIEW FULL MAP](#) FULL SCREEN MAP

↓ カテゴリフィルタ [非表示]



■ 全カテゴリー

**お知らせと情報/NOTICES
AND INFORMATION**

■ その他/OTHERS

TRUSTED REPORTS

■ 利用可能なサービス
/SERVICES AVAILABLE

■ インフラの状態 /INFRASTRUCTURE STATUS

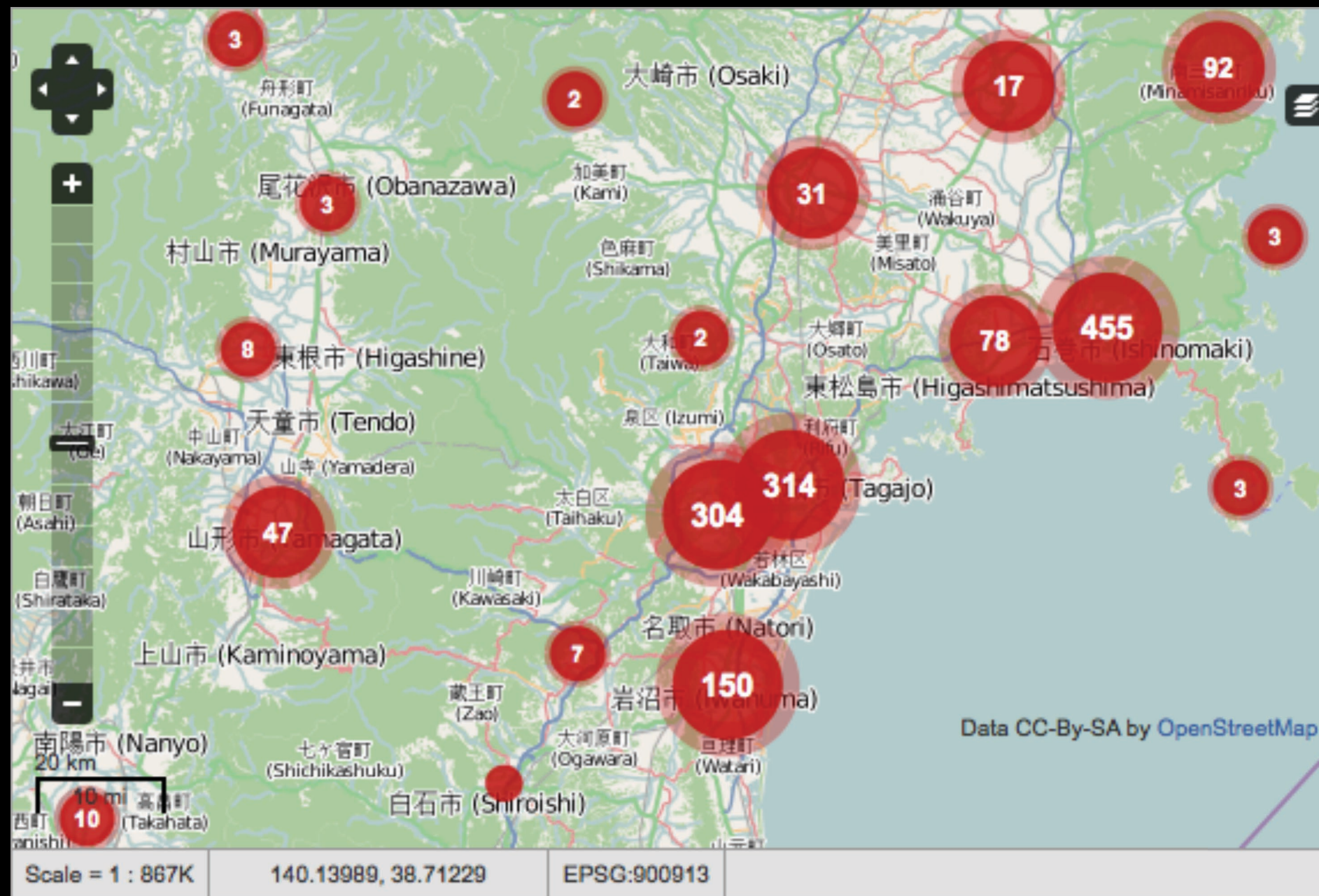
被災地/HAZARD ZONE

■ 交通機関/TRANSPORT

■ 物資/GOODS,SUPPLIES

■ 災害支援センター・避難所
/GOVERNMENT AGENCIES

■ 救助要請/EMERGENCY HELP



<http://www.sinsai.info/ushahidi/>

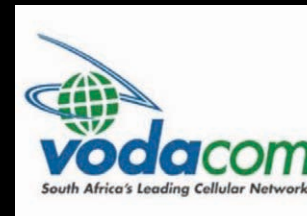
But, how can we use mobiles for

- Education?
 - Supporting girls' education?
- Health?
 - Providing preventive advice
- Rural Development?
 - Reaching the most marginalised areas



Can technology really serve the needs of the poorest?

Or will it continue primarily to serve the interests of the powerful?



Fixed line Broadband as proportion of monthly income

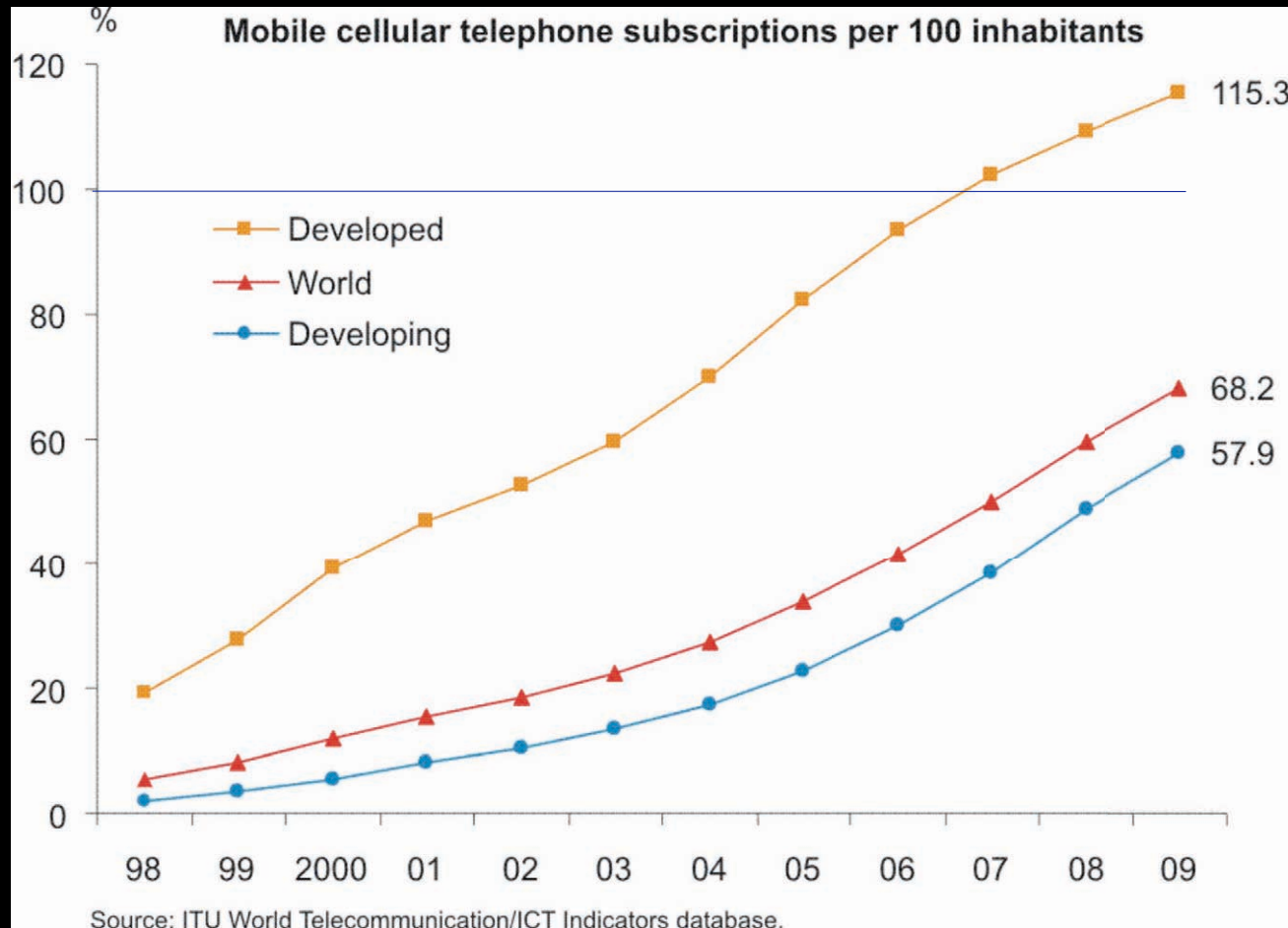
Least expensive

- Macau, China (0.30% of monthly income)
- Israel (0.33% of monthly income)
- Hong Kong (0.49% of monthly income)
- United States (0.5% of monthly income)
- Singapore (0.58% of monthly income)

Most expensive

- Central African Republic (3,891% of monthly income)
- Ethiopia (2,085% of monthly income)
- Malawi (2,038% of monthly income)
- Guinea (1,546% of monthly income)
- Niger (967% of monthly income)

Mobile subscriptions per 100 people



Source: ITU 2010

THE TIMES Technology

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Child labour 'is helping to power our mobile phones'

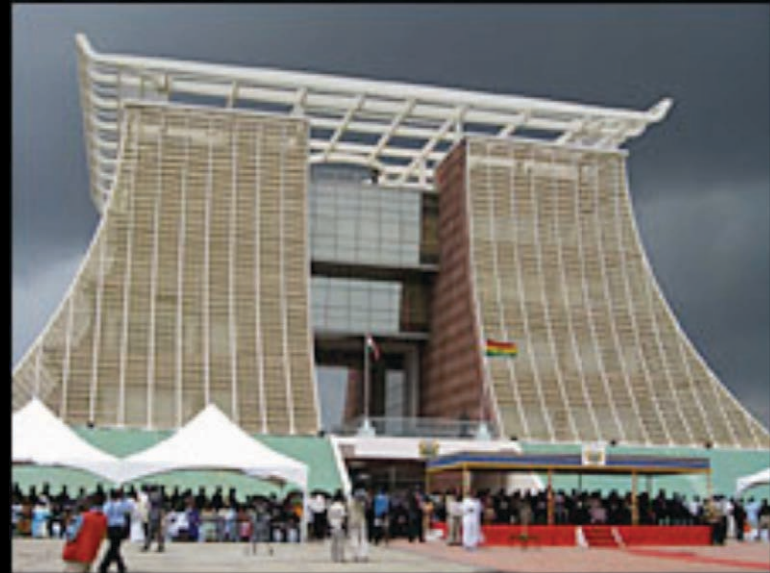
Article

Graphic: The supply chain



Markets and governments

- Neoliberal market driven agendas
 - For economic growth
- But the market will not serve the poorest and most marginalised
- So states *must*
 - Ensure regulatory environment is fair
 - Provide infrastructure for delivery to poorest



ICT⁴D – necessary conditions

- Appropriate regulatory environment
- Focus on the needs of the most marginalised
- Supporting bottom-up innovation
- Explicitly addressing social and political agendas
- Crafting appropriate partnerships

The importance of effective partnerships

- ICT4D is inherently multi-disciplinary
 - Need different skills and expertise
- Need to bring together different sectors to implement
 - Governments
 - Private sector
 - Civil society
- But difficult to do!

...and political agendas?



<http://totallycoolpix.com/2011/02/the-egypt-protests-part-04/>

What I hope you will take away

- Understanding 'development' in a different way
- Reflecting on how ICTs can help poor and marginalised people
- Some case study examples
- What needs to be in place for success
- ... to explore ideas further

