Mobile Amplification

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Using Cellphones to Change Societies
Harvard South Asia Institute – September 4, 2014
Microsoft Research India
My Background

Research in Technology and Development

- Research base
- Observational research
- Intervention research
Sample Research

Mobile Video for Rural Health

Gray Market Video

Cellphones and Microenterprises

Microcredit Bookkeeping

Very Remote Mobile Use

Warana Unwired

Mobile Photoshop
“[Mobile] phones and wireless internet [will] prove to be the most transformative technology of economic development of our time.”

– Jeffrey Sachs

“[Social media] increases the ease and speed with which a group can be mobilized for the right kind of cause.”

– Clay Shirky

“With a mobile phone, expectant mothers who live nowhere near a clinic can get health advice.”

– Hillary Clinton
You and a poor rural farmer are each asked to raise as much money for the non-profit organization of your choice, and to do so using free, unlimited use of a smartphone with free, high-bandwidth voice and data access over the period of one week.

Who would be able to raise more money?
Mobile access (or the Internet) democratizes.

Or, “the world is flat” because of communication technologies.

Or, “technology levels the playing field.”

Underlying human capacity and social connections are the primary drivers of differences in outcomes.
Are you as rich as you’d like to be?

Results 1 - 10 of about 41,100,000 for how to be rich. (0.24 seconds)

Are you as educated as you’d like to be?

A Guide to Cultivating Compassion in Your Life, With 7 Practices

Sources: http://www.google.com/search?q=how+to+be+rich
http://ocw.mit.edu
http://zenhabits.net/2007/06/a-guide-to-cultivating-compassion-in-your-life-with-7-practices/
Myth

Information is the bottleneck.

Information is just one of many requirements for positive change.

- Other requirements:
  - will and capacity
  - infrastructure
  - money
  - social support
  - etc.

Information ≠ Education

Communication ≠ Commerce

Digitization ≠ Efficiency

Sources: http://ecigblogs.com/tag/electronic-cigarette/
Imagine you are the CEO of a for-profit corporation that is not meeting its own goals and losing money. What is the most likely to improve the situation?

a) Rethink strategy.
b) Replace bad apples on leadership team.
c) Provide better training to employees.
d) Buy new iPhones for all employees.
e) Re-design website for mobile.
f) Install productivity apps.
Technology fixes broken institutions.

Information/communication is rarely the only requirement for positive change.

- Other requirements:
  - political will
  - Individual capacity
  - Organizational capacity
  - social support
  - funding
  - etc.

Digitization ≠ Efficiency

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Technology or amplifies human intent and capacity.
“The current evidence suggests that within the MSE sector, benefits of mobile use accrue mostly (but not exclusively) to existing enterprises, in ways that amplify and accelerate material and informational flows, rather than fundamentally transforming them.”

Medhi, Lakshmanan, Toyama, Cutrell (CHI 2013)

Donner et al. (ICTD 2009)

Chew, Ilavarasan, Levy (ICTD 2013)

DeRenzi et al. (ICTD 2012)
Poverty in the United States (1959-2008)

Number in Poverty: 39.8 million

Poverty Rate: 13.2%

Sources: U.S. Census Bureau, Wikipedia
Corollaries of Amplification

- Technology amplifies both positive and negative intent.
- To first order, technology *only* amplifies human intent and capacity; it doesn’t substitute for them or replace them.
- The wealthy and powerful disproportionately use technology to their advantage.
- Inequalities are amplified by an even spread of technology.
- Where social issues are the challenge, technology by itself doesn’t “scale” solutions.
- Technology-centric solutions work when the underlying human forces are goal-aligned and capable.
- Social challenges require social solutions.
- Some outcomes of technology application are predictable.
Recommendations

To maximize socio-economic impact via mobile...

- Start with relevant social trends or organizations which are already causing the changes sought. Then use technology to amplify.

- If social trends are missing, the desire needs to be created (e.g., through aggressive marketing).

- If capable organizations are missing, they need to be built or strengthened.
Consequences for Cellphone Data

Google Flu Trends case study:
- “’Big data hubris’ is the often implicit assumption that big data are a substitute for, rather than a supplement to, traditional data collection and analysis.” – Lazer et al. (Science, 2014)

Possible value for economic/sociological research.

Exactly where responsive institutions don’t exist, digital data is also spotty.

Most likely value: where an institution is just beginning to gather data, and genuinely interested in impact.
Thanks!
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