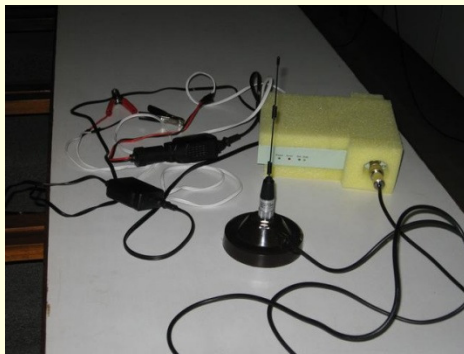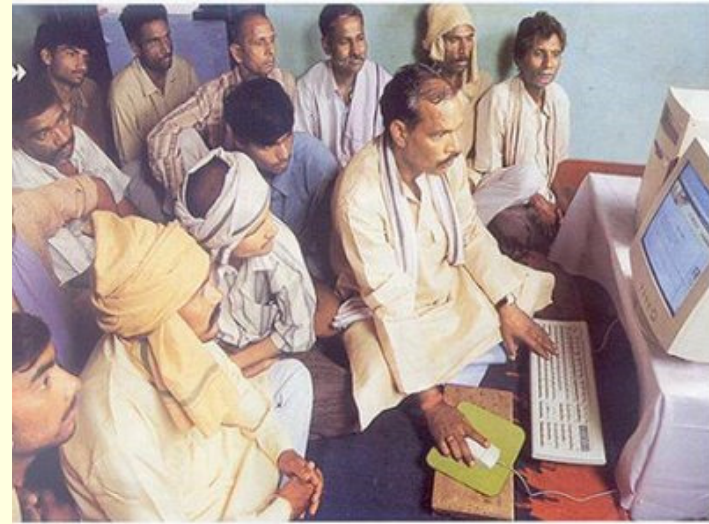# Introduction to ICTD

Aaditeshwar Seth

August 2010
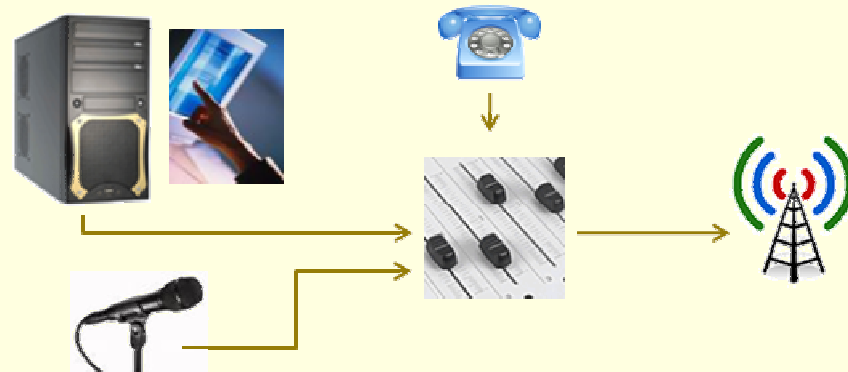
Internet access in rural areas

Video conferencing for tele-medicine

Community radio

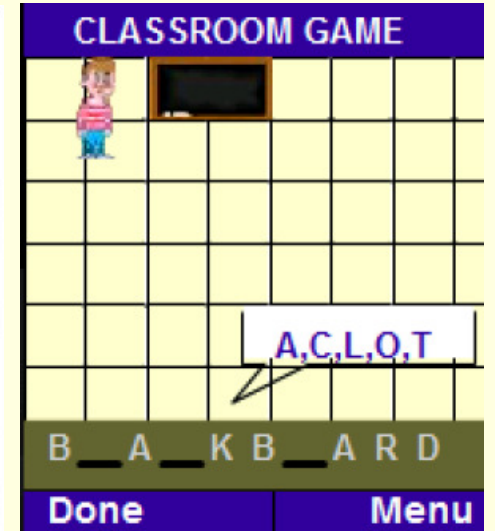# Education

(a) Books in print   (b) Books on DVD

Voice messaging

Civic media

Asia Buzz: Revolution

How text messaging toppled
Joseph Estrada

By ERIC ELLIS

eric ellis
TIME Asia

January 23, 2001
Web posted at 2:00 p.m. Hong Kong time, 11:00 a.m. EDT

WITNESS — SEE IT FILM IT CHANGE IT

WITNESS

WITNESS uses video and
online technologies to
open the eyes of the
world to human rights
violations.

Why now?

- Anybody's guess
  - Cheaper computation (Moore's Law)
  - Proliferation of mobile phones
  - The Internet has managed to convey the power of information

The economic pyramid

Purchase power parity in US $ — Population in millions

- > $ 20,000 — TIER 1 — 75 - 100
- $ 1,500 - $ 20,000 — TIER 2 - 3 — 1,500 - 1,750
- $ 1,500 — TIER 4
- 4,000
- < $ 1,500 — TIER 5

More than 4 billion constitute the BOP (Bottom of the Pyramid)
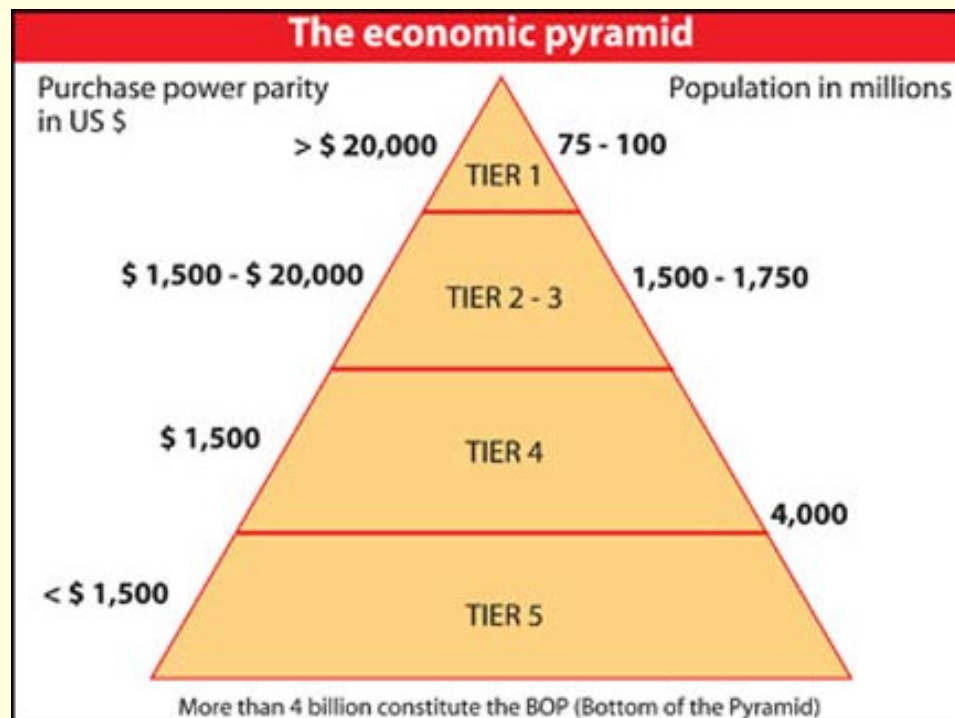
- It rarely works! Working with people is hard
  - Community radio: My wife had ideas for some programs, but she was ignored because she was not participating in the NGO's SHG program
  - Community radio: Nature of organization influences the kind of programs it creates: KMVS and DA
  - Mobile phones in Africa: Women rarely own cellphones, kept by men
- What may work can be completely counter-intuitive
  - Rural kiosk: Computers used to photoshop pictures, edit wedding videos
  - Interactive radio: Recorders helped women get their views to the radio station, gained respect with their men

- Goals
  - Uncover factors that influence communities, people?
  - Create something useful that can help societies develop?
  - Eventually, translate into appropriate policies for widespread impact
- Scope for impact: Huge! Can this remove poverty? Can this open up new markets for companies?
- What's common to achieve these goals
  - Understand the context in which people use these tools: Necessary to understand why something was successful or a failure
  - Closer to the way social scientists do experiments

- Research method
  - Observe → Model and define problem → Hypothesis → Experiment → Conclusion
    - Test and control groups to check for differences
    - Qualitative and quantitative surveys
    - Carefully designed experiments to reduce chances of errors
- Examples of research questions
  - Revi Sterling: Does interactivity have any impact on the empowerment and status of women in the community?
  - Michael Best: Can video sharing and story telling help in post-conflict reconciliation?
  - Neil Patel: Do people attach the same credibility to local sources as they do to experts?

Course objectives

- Readings will give an idea of the different ways in which computer science can be used for development

- Guest lectures will give an idea of the people-related complexities in this area

- Other readings
  - Policy
    - Community driven radio or NGO driven? Subsidies? Free/cheaper cellphones for women? Free calls to home?
  - Financial sustainability
    - Failure of the rural entrepreneur model for kiosks? Scope for advertising?

Always keep in mind

"If all you have is a hammer, everything looks like a nail"

Maslow, 1960s