YOU DON’T HAVE TO INSANE TO PRACTICE TELEHEALTH - BUT IT HELPS...

OVERVIEW

- CONTEXT
- TECHNOLOGY
- TELEHEALTH CHALLENGES
- PARADIGM SHIFTS
CONTEXT

The Field

- Telehealth
- eHealth
- mHealth
- Health Informatics
- Bio-informatics
- Health 2.0
- ICT4H
- Wireless Health
- Digital Health
- Connected Health
- Cyber Health
- uHealth

DEFINITION

TELEHEALTH IS HEALTH CARE DELIVERED AT A DISTANCE USING COMMUNICATIONS TECHNOLOGY

LOCAL PERSPECTIVE
DISTANCE

APPROX 2000 KM TO CENTRE FROM EAST/WEST COASTS

URBAN POPULATIONS

• 1908 - 10% of global population is urban
• 2008 - 51% of global population is urban
• 2010 - 33% of urban population lives in slums
  – 200 million in Africa
  – 190 million in SE Asia
• 2025 – 5 bn people in cities

Global Statistics

• Global Population: 7 Billion
• Languages: 6,500
• Literacy: 80%
• Poverty: 1.3 bn < $1.25 per day
• Sub-Saharan Africa:
  – 25% of global disease burden
  – 3% of global medical practioners
• Doctors:
  – Australia: 265 per 100,000
  – Sub-Saharan Africa: 18 per 100,000

DISTANCE II

DISTANCE AS:
• GEOGRAPHY
• TECHNOLOGY
• ACCESS
• ECONOMICS
• LANGUAGE
• LITERACY
• HEALTH PRACTICES
• CULTURE/RELIGION
GLOBAL STATISTICS

- 1.3 bn fixed line subscribers
- 1.6 bn personal computers
- 2.5 bn Internet users
- 90% of the world has network coverage
- 6 bn mobile subscribers
- 1 bn smartphones
- 2012 US and China > 50% smartphones
- 2015 mobile web access > desktop

Technology

Architecture Models

- Hub & spoke
- Multiple hub & spoke “Dandelion”

Architecture Models II

Mesh Network
Communication tools do not become socially interesting until they become technologically boring.

Clay Sharky
TELEHEALTH CHALLENGES

- Policy and Regulatory Framework
- Innovative Business Models
- Proven ROI for DOH
- mPayments
- Sustainability
- Scalability
- System Impact
- Pilotitis

THE REAL CHALLENGE

Maturing the health ecosystem as a whole

A SYSTEMIC PROBLEM REQUIRES A SYSTEMIC SOLUTION

GLOBAL ECOSYSTEM
NAT’L ECOSYSTEM

Social Media

患者/护理人员

Web Services

Donors/Dev Agencies

Pharmaceuticals

移动运营商

Research/Academic Institutions

Hospitals/Healthcare Providers

Healthcare Insurers

Doctors/Nurses Associations

Community Health Workers

NGO Implementers

Training & Certification

Home Healthcare Technology Cos.

Call Centre Services

National Telecom Ministry/Agencies

National Health Ministry/Agencies

PARADIGM SHIFTS

Health Statistics 2010

- Hospitals: 270,000
- Midwives: 1.9 million +
- Hospital Beds: 26.9 million
- Health Workers: 40 million +
- Households: 1.7 billion
- Population: 6.7 billion

Skills

Doctors  Nurses  Health Workers  Patients

NOW

Services

Hospitals  Clinics  Health Points  mDevices

FUTURE

TASK SHIFTING
Prior Interaction Model

- Specialist
- Doctor
- Nurse
- Pharmacist
- Health Worker
- Patient

New Interaction Model

- Website
- Clinic
- Facebook
- Doctor
- Twitter
- Support Group
- Nurse

CHANGE MODELS

- System strengthening
- System transformation
- System disruption

HEALTH CARE 2015

- Predictive
- Preventive
- Personalised
- Participatory
mHEALTH DOMAINS

- Treatment Compliance
- System Administration
- Disease & Epidemic Outbreak Tracking
- Supply Chain Management
- Public Education & Awareness
- Remote Data Collection
- Remote Diagnostics
- Remote Monitoring
- Management & Training of Health Workers
- Call Centre Support & Triage

CHASING THE TAIL

- DOG = HEALTH SYSTEM
- TAIL = ICT
- HAIR = MOBILE

GLOBAL SOUTH

Technical vs Implementation Innovation

5 KEY ISSUES

- From Point to Platform solutions
- From ICT4H to ICT4D (mServices)
- Task shifting/capacity building
- Citizen empowerment vs institutional efficiency
- Organisational Interoperability
The Future?

- Surprise
- Fear
- Ruthless Efficiency
- And.....

The future is already here – it’s just not very evenly distributed.

William Gibson
Thank you...

ICT4H Value Stack

Time/Maturity of Services

Benefits to Participants/Providers

Integration

Transaction

Information

Communication Systems

Health and Wellness, Consumer's Messaging

Information Systems

Health Systems Management

Decision Support Systems

Enhanced Health, Clinical and Administrative Decision Making

Management Systems

Identity, Security, Audit, Payments

Health Systems

Expert Systems

Intelligent Cross-Platform Solutions

Transformation

Expert Systems

Healthcare

Prevention

Cure

Health Care

The 8 Millennium Development Goals

- Early Marriage, Gender Equity and Women's Education
- Poverty Eradication
- Primary Health Care
- Environmental Sustainability
- Clean Water and Sanitation
- HIV/AIDS, Malaria and Other Diseases
- Gender Equality and Women's Empowerment
- Child Mortality

Global Telehealth Conference 2012
The street finds its own uses for things.

William Gibson