Poverty at starting line
The influence of Digital Divide

17 May 2013
Agenda

- What is Digital Divide?
- What is the Impact?
- How to measure?
- What is the situation now in Hong Kong?
- What should be a digital inclusive society?
- How to tackle Digital Divide?
What is Digital Divide?

- In 2011, the world has
  - 2.3 billion Internet users worldwide (33%)
  - reached more than 1 billion mobile broadband subscriptions
  - 590 million fixed broadband subscriptions
- In contrast,
  - 16% of people in Africa are using the Internet – only half the penetration rate of Asia and the Pacific.
  - More men than women use the Internet, 41% vs 37%
  - 90% of households not connected to the Internet are in the developing world.
What is Digital Divide?

- Internationally addressed as the divide between the rich countries and the poor ones in terms of ICT usage
- Key issues are – Accessibility & Affordability
- Top level - Across Countries
- Second level - Within Countries, across cities and regions
- Third level - Within Cities, across ethnicities and disadvantaged groups
International DD Measurement

- ICT Development Index (IDI), ITU-United Nations
  - ICT access
    - Fixed-/mobile-phone, Internet bandwidth
  - ICT use
    - % of using the Internet, mobile broadband subscriptions
  - ICT skills
    - Computer literacy, secondary & tertiary enrolment ratio
  - ICT Price
    - Affordability of ICT related hardware and service
- World Development Indicators, **World Bank**
- Digital Opportunity Index, ITU & Korean Agency for Digital Opportunity (**KADO**)
# ICT Development Index (IDI)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Rank 2011</th>
<th>IDI 2011</th>
<th>Rank 2010</th>
<th>IDI 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea (Rep.)</td>
<td>1</td>
<td>8.56</td>
<td>1</td>
<td>8.45</td>
</tr>
<tr>
<td>Sweden</td>
<td>2</td>
<td>8.34</td>
<td>2</td>
<td>8.21</td>
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<tr>
<td>Finland</td>
<td>5</td>
<td>8.04</td>
<td>5</td>
<td>7.89</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9</td>
<td>7.75</td>
<td>14</td>
<td>7.35</td>
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<tr>
<td>Switzerland</td>
<td>10</td>
<td>7.68</td>
<td>9</td>
<td>7.48</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>11</td>
<td>7.68</td>
<td>12</td>
<td>7.39</td>
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<tr>
<td>Singapore</td>
<td>12</td>
<td>7.66</td>
<td>10</td>
<td>7.47</td>
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<td>Macao, China</td>
<td>14</td>
<td>7.51</td>
<td>13</td>
<td>7.38</td>
</tr>
<tr>
<td>United States</td>
<td>15</td>
<td>7.48</td>
<td>16</td>
<td>7.11</td>
</tr>
<tr>
<td>China</td>
<td>78</td>
<td>3.88</td>
<td>79</td>
<td>3.58</td>
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<tr>
<td>Niger</td>
<td>155</td>
<td>0.88</td>
<td>154</td>
<td>0.88</td>
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</table>
DD Measurement in Hong Kong

- Government statistics
  (thematic household surveys report 32)
  - From 2001 onwards compiled annually

- Comprehensive Digital Inclusion Index
  - Conducted by a research team since 2005
  - Compiled every three years
    - Accessibility index, Affordability index, Usage index & Knowledge index
Computer and Internet Penetration

Chart 8.1  Percentage of households with personal computer at home and households with personal computer at home connected to the Internet among all households
What is the Impact on Poverty?

*Poverty: cause of resource and opportunity*

- **Social** –
  - excluded from new communication channels
- **Economical** –
  - limited of accessing to information and knowledge
- **Technological** –
  - lagged behind rapid technology change
- **Political** –
  - contracted the right to participation
- **Disabilities** –
  - created new obstacles for minorities
Technology Trend

Chart 1.2: Global ICT developments, annual change, 2001-2011

Source: ITU World Telecommunication/ICT Indicators database.
The ICT price is usually higher in developing countries than well-developed countries.
## Computer Penetration Across Income

### Table 8.3b: Households with personal computer (PC) at home by monthly household income

<table>
<thead>
<tr>
<th>Monthly household income (HK$)</th>
<th>No. of households (000)</th>
<th>百分比</th>
<th>比率*</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10,000</td>
<td>240.4</td>
<td>12.6</td>
<td>42.1</td>
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<tr>
<td>10,000 - 19,999</td>
<td>501.6</td>
<td>26.2</td>
<td>84.2</td>
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<tr>
<td>20,000 - 29,999</td>
<td>441.7</td>
<td>23.1</td>
<td>94.6</td>
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<tr>
<td>30,000 - 39,999</td>
<td>284.0</td>
<td>14.8</td>
<td>95.8</td>
</tr>
<tr>
<td>40,000 - 49,999</td>
<td>159.1</td>
<td>8.3</td>
<td>98.6</td>
</tr>
<tr>
<td>≥ 50,000</td>
<td>286.2</td>
<td>15.0</td>
<td>98.7</td>
</tr>
<tr>
<td>合計</td>
<td>1,912.9</td>
<td>100.0</td>
<td>80.3</td>
</tr>
</tbody>
</table>

### Median monthly household income (HK$)

24,300

**Note:** As a percentage of all households in the respective monthly household income groups. For example, among all households with monthly household income of less than 10,000, 42.1% had a PC at home.
Use of computer by age and sex

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>15-24</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>25-34</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>35-44</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>45-54</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>55-64</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>&gt;=65+</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Legend:
- Male
- Female
- Overall
## Findings of DII

<table>
<thead>
<tr>
<th>Sub-indexes</th>
<th>Older People</th>
<th>New Arrivals</th>
<th>Single Parents</th>
<th>Women</th>
<th>Children (low income)</th>
<th>Disabilities &amp;/or Chronic illnesses</th>
<th>All Disadvantaged Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility Sub-Index</td>
<td>0.50</td>
<td>0.70</td>
<td>0.71</td>
<td>0.75</td>
<td>0.72</td>
<td>0.53</td>
<td>0.62</td>
</tr>
<tr>
<td>Usage Sub-Index</td>
<td>0.04</td>
<td>0.50</td>
<td>0.19</td>
<td>0.06</td>
<td>0.88</td>
<td>0.17</td>
<td>0.26</td>
</tr>
<tr>
<td>Knowledge Sub-Index</td>
<td>0.04</td>
<td>0.52</td>
<td>0.41</td>
<td>0.05</td>
<td>0.92</td>
<td>0.14</td>
<td>0.26</td>
</tr>
<tr>
<td>Affordability Sub-Index</td>
<td>0.50</td>
<td>0.71</td>
<td>0.48</td>
<td>0.62</td>
<td>0.00</td>
<td>0.54</td>
<td>0.52</td>
</tr>
<tr>
<td>CDII</td>
<td>0.27</td>
<td>0.61</td>
<td>0.45</td>
<td>0.37</td>
<td>0.63</td>
<td>0.35</td>
<td>0.41</td>
</tr>
</tbody>
</table>
The term **digital rights** describes the **human rights** that allow individuals to access, use, create, and publish **digital media** or to access and use **computers**, other **electronic devices**, or **communications networks**. The term is particularly related to the protection and realization of existing rights, such as the **right to privacy** or **freedom of expression**, in the context of new digital technologies, especially the **Internet**. Internet access is recognized as a right by the laws of several countries. (Finland, France, Greece, Spain..) (Wikipedia 2013)
Digital Rights

- Giving people the basic ICT skills to participate in the knowledge economy
- Closing the digital divide
- Making the technology and electronic services accessible for disabled & elderly
- Giving people broadband Internet access
- Preventing economic exclusion from electronic commercial & public services
- Preventing social exclusion from digitally connected communities
- Using any digital technology to tackle social exclusion
- Using any digital technology in communities to tackle area-based deprivation
How to tackle Digital Divide?

- **Policy Level**
  - National policy and targets to tackle digital divide
  - Free information flow

- **Program Level**
  - Providing Access
  - Skill/Capacity Building
  - Proper Design
  - Application and Content
Tackling Digital Divide

- Some examples of providing access
  - Provision of equipment and connectivity
  - Establishment of ICT Access Point (Telecentre)
  - Subsidy or loan for disadvantaged groups to purchase or borrow computers
  - Recycling old computers or organizing donations of new computers
  - Support the not-for-profit IT operations or Internet Service Providers (Free WiFi)
Tackling Digital Divide

- Skill/Capacity Building
  - Induction and training to the underprivileged
  - Establishing and maintaining a group of volunteers
  - Facilitation for the disadvantaged individuals to support each other
Tackling Digital Divide

- Proper Design
  - Promote practical design of equipment to suit the use of people with special needs
  - Barrier-free design of websites and software for people with disabilities
  - International Standards
Tackling Digital Divide

- Application and Content
  - Cyberspace for disadvantaged population to learn, to share and to work
  - Vertical portal sites for various disadvantage groups
Tackling Digital Divide

Roles of Government

- Establish National Strategies and Policies on Digital Inclusion
- Legislation, use of market force
- Pro-poor elements in e-Govt policies
- Digital Inclusion and Poverty Eradication
- Support research/measurement on DD
- Establish targets for DI
- Leadership in multi-stakeholder-team
- Establish sustainable financial infrastructure for NGO
Tackling Digital Divide

- Roles of Business Sector
  - Turn digital divide into digital dividend
  - Finance digital inclusion as business investment
  - Charity donations
  - Supply of volunteers to support DI programs in community
  - Expert knowledge in ICT (design)
  - Work with NGOs in program level
Tackling Digital Divide

- **Roles of NGOs**
  - Know the needy groups in community, feel their pulse
  - Mobilize volunteers, promote mutual help
  - Conduct programs at community levels
  - Accumulate know-how via practice
  - Reflect needs of people to policy-makers
  - Participate in policy review and planning
Tackling Digital Divide

- Roles of Individual
  - Attitude and consideration on use of information
  - (E-)Volunteering
  - Recycling and Donations
  - Helping someone
Tackling Digital Divide

Multi-stakeholderism

Some examples:

- Digital Solidarity Fund
  - Cross bureau task group for Digital Inclusion
  - Govt led, Business sector supported, NGO conducted programs

- District Cyber Centres / Telecentre
Digital Solidarity Fund
Best Practice Sharing - Casebook

- Published in 2008
- Included stories of beneficiaries, sharing by project organizers and major sponsors
Granted Projects – "Project Insider" by an Integrated Youth Centre

- ICT as a means to promote racial harmony
- Use of digital photography and video production to engage teenagers of ethnic minority group with local youngsters
- Screening and roadshows of productions to promote message on social inclusion
Media coverage

Title:
"Photography helps Ex-mentally ill persons to communicate"
More information

- Website: www.dsf.org.hk
- Email: dsf@hkcss.org.hk
- Tel: (852) 2922 9280
District Cyber Centres / Telecentre

- Supporting 57 DCCs, setting up ICT Access Points and literacy trainings
- Procurement of hardware with special offer and instalment option
- Provision of technical support
- Engagement of sponsorship and funding for service advancements
- Promotion of life-long ICT learning through Cyber Community Award Scheme
Voices of the Disadvantaged:

If I were computer illiterate I wouldn’t have obtained employment
– Kim, visually impaired
Voices of the Disadvantaged:

I don’t want to be left behind by society...
I am still useful...
I can use computer to do lots of things.....

– Mr Chan, 70+
Thank you