Access... and rethinking the relationship between the WSIS goals and the SDGs
Anriette Esterhuysen
22nd Annual Session of CSTD
What are communications policy makers talking about most at the moment?

The 4th industrial revolution
Internet of Things
Artificial Intelligence
Fake news
Cyber security
5G roll out
And sustainable development people?

Gender equality
Affordable and clean energy
Decent work and economic growth
Income inequality - which is at its highest ever, and growing. “The richest 10 percent have up to 40 percent of global income whereas the poorest 10 percent earn only between 2 to 7 percent” (UNDP)
Responsible consumption and production
Peace, governance, justice and strong institutions
In spite of all our efforts, is there still a disconnect?
Let’s look at affordable access, for example... what is getting more time and attention right now?

Connecting things? Or connecting people? Or a hyper connected society for people who are already connected?

They might not be mutually exclusive.. but are we getting our priorities right?
# We’ve Connected the Easy Half

<table>
<thead>
<tr>
<th>Billions of People on Earth</th>
<th>Average Annual Income</th>
<th>Affordable Monthly Communication Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Billion</td>
<td>$29,206</td>
<td>$205</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Billion</td>
<td>$12,702</td>
<td>$53</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Billion</td>
<td>$5,540</td>
<td>$23</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; Billion</td>
<td>$2,987</td>
<td>$12</td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; Billion</td>
<td>$1,771</td>
<td>$7</td>
</tr>
<tr>
<td>6&lt;sup&gt;th&lt;/sup&gt; Billion</td>
<td>$1,065</td>
<td>$4.4</td>
</tr>
<tr>
<td>7&lt;sup&gt;th&lt;/sup&gt; Billion</td>
<td>$540</td>
<td>$2.25</td>
</tr>
</tbody>
</table>

Source: Richard Thanki, University of Southhampton from UN & ITU
5 G, spectrum auctions, and the digital divide

It can offer:

- Increased capacity of existing mobile broadband (e.g. virtual reality on your phone)
- Connect many more devices (e.g. Internet of Things)
- Increased reliability and lower the latency of networks (e.g. remote surgery).

It is very expensive...suited to big operators.

Is this what is needed to create more equitable access? Whether the response is yes or no, regulators are pre-occupied with it.
## Impact of Spectrum Auctions

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Spectrum</th>
<th>Price</th>
<th># successful bidders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>2014</td>
<td>2.3GHz</td>
<td>$23,000,00</td>
<td>1</td>
</tr>
<tr>
<td>Ghana</td>
<td>2015</td>
<td>800MHz</td>
<td>$67,500,00</td>
<td>1</td>
</tr>
<tr>
<td>Nigeria</td>
<td>2016</td>
<td>2.6GHz</td>
<td>$96,000,00</td>
<td>1</td>
</tr>
<tr>
<td>Mozambique</td>
<td>2013</td>
<td>800MHz</td>
<td>$30,000.00</td>
<td>0</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2018</td>
<td>800MHz</td>
<td>$20,000,00</td>
<td>2</td>
</tr>
<tr>
<td>Mozambique</td>
<td>2018</td>
<td>800MHz</td>
<td>$83,000,00</td>
<td>3</td>
</tr>
</tbody>
</table>
Spectrum Auctions Lock Small Operators Out of the Market

Why does this matter?
Not One but Three Economies
Source: Steve Song @manypossibilities

Global Economy
Large companies, financial institutions, the State: serves global markets

Local Market Economy
Small businesses, self-employment: serves local needs

Subsistence Economy
Few market economy activities and mainly informal activities: serves a subsistence economy

Fernand Braudel
Apply this to access provision: Global
Local
Subsistence
All Three Economies Need Empowering Policies and Regulation to Allow Them to Flourish
B4RN

Fibre

>Rural broadband (UK)
5000 connections
1 Gbps symmetric
18,000 sq km
Customers lost in 6 yrs: 1
Zenzeleni

In last year:
15 businesses
15K unique devices
20 TB of traffic
20-100x cheaper
Lawrencetown Co-op

WiFi

~230 customers
20 Mbps
Had to reduce initial fee
$45/mo ➔ $29/mo

Exploring health / power
Rhizomatica

GSM

14 community operators
60+ localities
~3500 users daily
4 MHz spectrum
To get back to WSIS and the SDGs...

Let’s build sustainable development considerations into ICT policy, design and programmes, rather than always focusing on how ICTs can enable the SDGs.
The State of Fibre 2009
The State of Fibre 2018

OVER A MILLION KM

Mediterranean Undersea Cables
- Atlas Offshore: 320 gigabits
- SAS-1: Active
- SEA-ME-WE 4: Active
- I-ME-WE: Active
- EIG: Active
- SEA-ME-WE 5: Active
- AAE-1: Active

N.B. Several smaller Mediterranean cables not shown.

West Coast
- SAT3/SAFE: 600 gigabits
- GLO-1: Active 1.3 terabits
- ACE: 5 terabits
- MainOne: Active 10 terabits
- NCSCS: Active 12.5 terabits
- WACS: Active 14.5 terabits
- SAIL: Active 32 terabits
- SACS: Active 40 terabits
- EllaLink: Q2 2018 72 terabits

East Coast
- SEAS: Active 320 gigabits
- TEAMs: Active 1.2 terabits
- LION 2: Active 1.3 terabits
- EASSy: Active 10 terabits
- Seacom: Active 12 terabits
- DARE: Q2 2018 60 terabits

African Undersea Cables (2018)
http://manypossibilities.net/african-undersea-cables
Version 47 Jul 2017