NGI-NO kick-off, 8Aug2019, Trondheim

Next Generation Internet

- Sustainability and Societal Security

Josef Noll,
Professor, University of Oslo, Department of Technology Systems
Kjeller, Norway, m: +47 9083 8066, e: josef@jnoll.net
There will be no peace until all men learn to understand each other.

True...

True...

How are we going to get everybody to speak Norwegian?

Cyber Security, IoT Security -> Societal Security

Empower the every single Person to participate in the Digital Society
United Nations: High-Level Panel on Digital Cooperation

Secretary-General’s High-level Panel on Digital Cooperation

Launch of a High-level Panel on Digital Cooperation

Digital technology is changing economies and societies at warp speed and scale.
United Nations High Level Panel on Digital Cooperation

- Melinda Gates, Jack Ma, … Vinton Cerf, Nikolai Astrup, …
- Jun2019 report
- Recommendations
  - Inclusiveness
  - Digital Public Goods

1A: We recommend that by 2030, every adult should have affordable access to digital networks, as well as digitally-enabled financial and health services, as a means to make a substantial contribution to achieving the SDGs...

1B: We recommend that a broad, multi-stakeholder alliance, involving the UN, create a platform for sharing digital public goods, ....

1C, 1D, 2....
The panel highlights some references to be taken into consideration, including the @Basic4All's Digl project in Tanzania #SDGs #digitalinclusion #DigitalCooperation @UNSGdigicoop

There has also been considerable private sector activity in this arena. Leao, a project of Google's parent company Alphabet, uses internet-enabled balloons – in the aftermath of Hurricane Maria, they provided connectivity to 200,000 in Puerto Rico. Amazon, DirecTV, Telesat, Space Norway and Spacex are among companies considering connectivity solutions using earth orbit satellites.

Some countries, such as Indonesia, have set targets that treat internet connectivity as a national priority.17 While finance alone will not achieve universal internet access, it can help if invested wisely: some countries are generating financing from fees on existing communication network providers to help expand systems to those who are currently uncovered, for example through Universal Service Funds.18

Advance market commitments deserve further consideration as a possible way to incentivise investment, as they have in other areas such as vaccine developments. They involve a commitment to pay for a future product or service once it exists. The commitment in this case would come from concerned governments, international organisations, or others interested in deploying specific uses in areas such as health or education.19

Many local groups are also working on small scale community solutions: for example, a rural community of 5,000 people in Mankosi, South Africa, built a solar-powered "mesh network" in collaboration with a university.20 Such community projects are often not just about getting online but building skills and empowering locals to use technology (for development and entrepreneurship).

Initiatives to improve access for marginalised populations should start with consultation involving these groups in the design, deployment and evaluation of such efforts. Efforts to improve digital inclusion would be greatly helped if there were a clear and agreed set of metrics to monitor it. Initial work – notably by the Organisation for Economic Co-operation and Development (OECD), the Group of Twenty (G20), ITU, and the Economist Intelligence Unit – needs to be broadened to reflect the wide variety of global contexts and, importantly, needs greater buy-in and participation from developing countries.21 The Panel urges international organisations, civil society and governments to develop action plans around reliable and consistent measures of digital inclusion with sex disaggregated data. Discussion about measurements and definitions would also focus attention on the issues underlying inclusion.

2.2 RETHINKING HOW WE WORK AND LEARN

Many previous waves of technological change have shifted what skills are demanded in the labour market, making some jobs obsolete while creating new ones. But the current wave of change may be the most rapid and unpredictable in history. How to prepare people to earn a livelihood in the digital age – and how to protect these struggling to do so – is a critical question for digital cooperation among governments and other stakeholders who aim to reduce inequality and achieve the SDGs.
Societal Security through NGI

Research Topics

- Societal Security
  - through digital inclusion and participation
  - worldwide perspective

- Research topics
  - Societal Security - Digital Inclusion
  - NGI information model: Freemium access
    - free access to information
    - premium access to broadband services
  - Enabling Digital Public Goods
    - information model
    - to every single person

Impact: Digital Inclusion as catalyst for the SDGs: Health, Education, Decent Work

Impact: Addressing the recommendations of the High-Level Panel
Free access to Digital Public Goods

- **Architecture** for Digital Public Goods
  - Combining access (1A) and Digital Public Goods (1B)

- **Ensure**: digital inclusion

- **Ensure** Network Neutrality
  - Content type filtering

Starting with one Information Spot per village
Internet Lite for All
the catalyst for the goals

“Non discriminating access” project
- funded by RCN and Mfa/Norad (14.9 MNOK for 2017-2020)
- Tanzania: digital health

3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

Target 9.C
Target 16.10
Conclusion

- Next Generation Internet
  - Address Sustainability and Societal Security
  - through digital inclusion and participation
  - worldwide perspective

- Research topics
  - Societal Security - Digital Inclusion
  - NGI information model: Freemium access
    - free access to information
    - premium access to broadband services
  - Enabling Digital Public Goods
    - information model
    - to every single person

“Internet had the ability to dismantle the divide. Internet failed miserably, the divide is bigger than ever.”
Kate Gilmore, Human Rights, UNO

“Providing Internet to the basic of the pyramid isn’t a question of affordability, but rather a question of sustainability.”
Internet Governance Forum, Panel