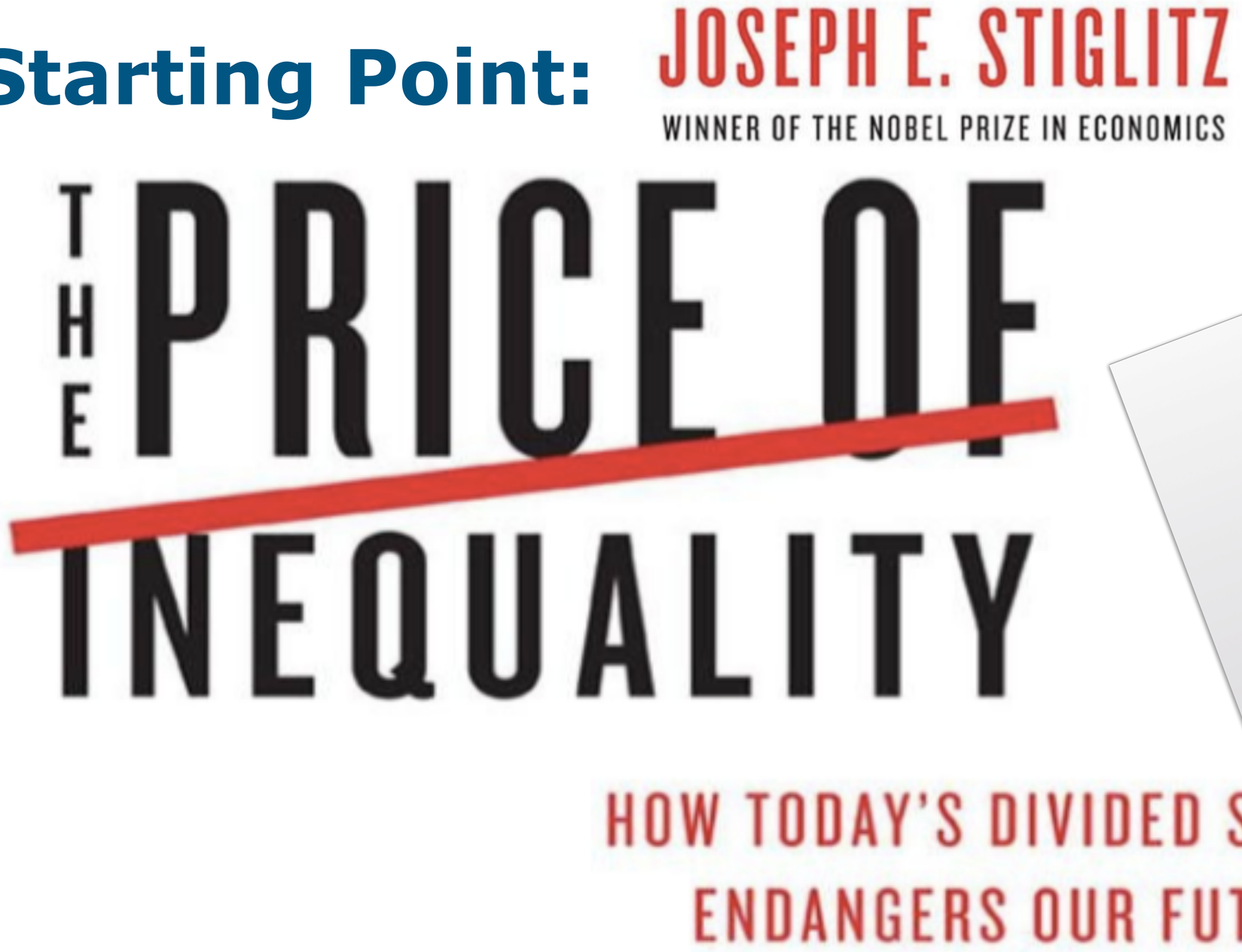
UiO : Department of Technology Systems
University of Oslo

Benefit from Digital Innovation Hubs to connect the unconnected in Europa, Norway and Africa - Webinar 11Mai2021

Next Generation Internet in a Societal Perspective

Josef Noll,
Professor, University of Oslo, Department of Technology Systems
Secretary General, Basic Internet Foundation
Kjeller, Norway, m: +47 9083 8066, e: josef@jnoll.net

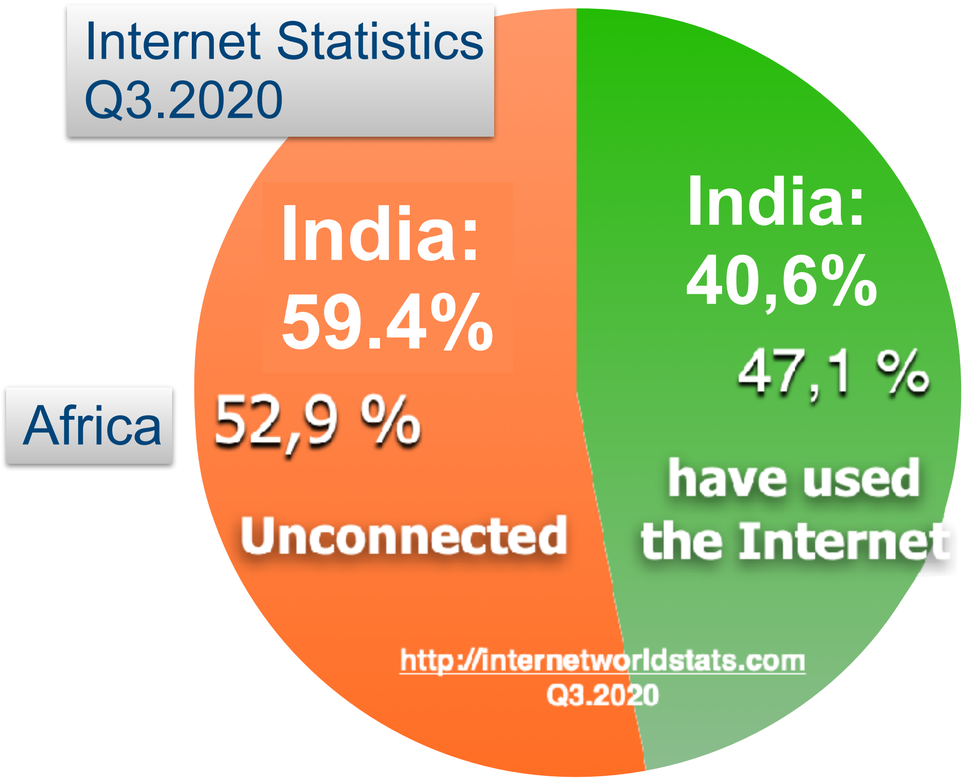
Starting Point:



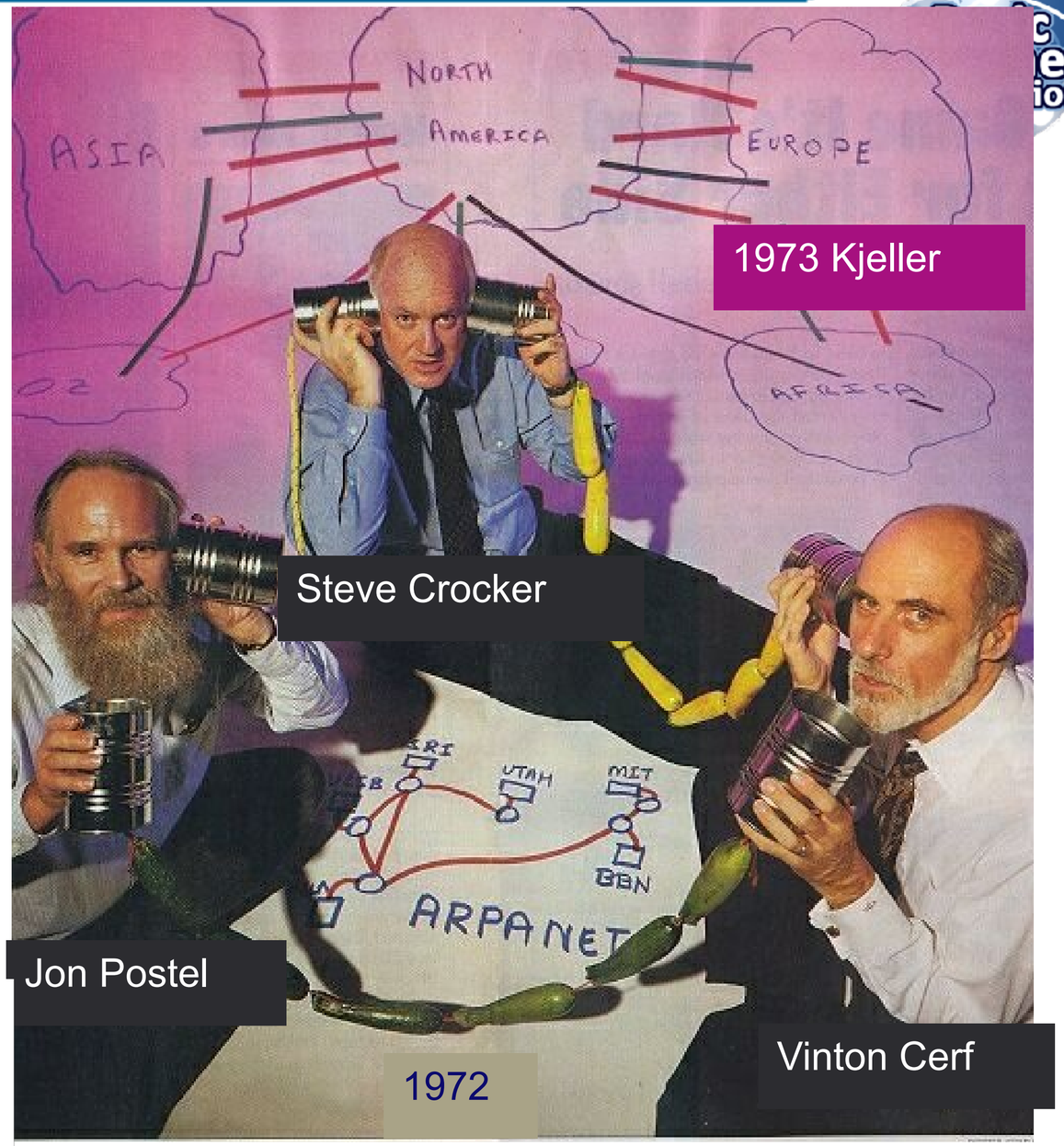
#Internet4All

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

Next Generation Internet as basis for empowerment and trust



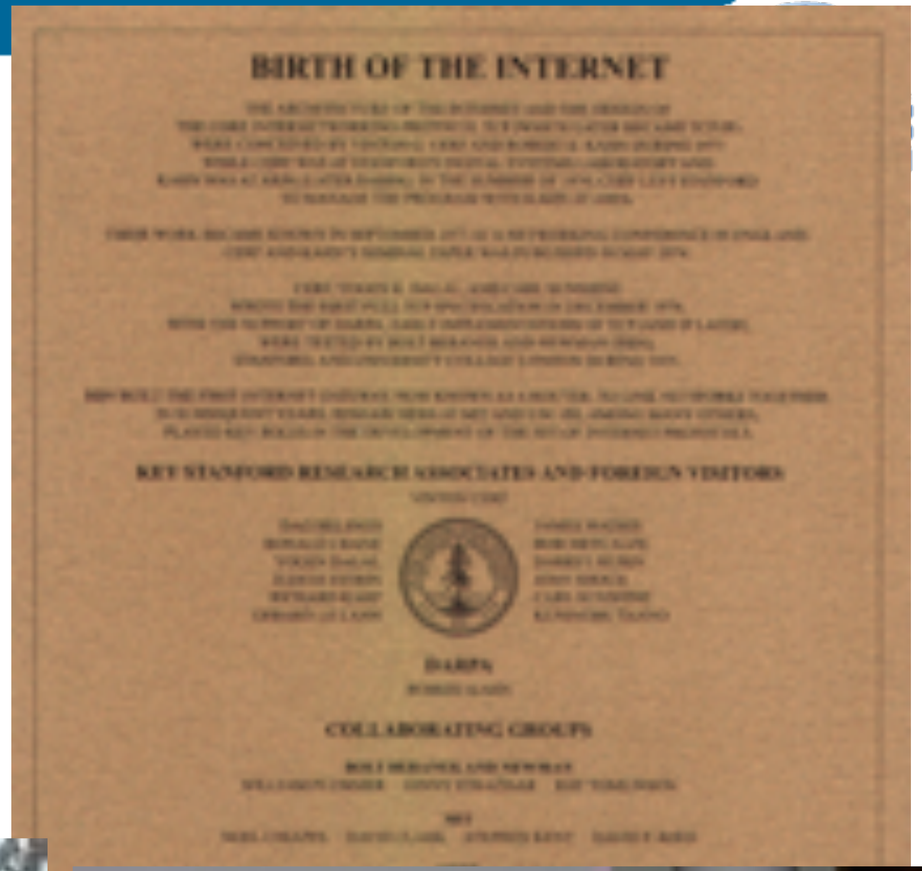
ASIA INTERNET USE, POPULATION STATISTICS DATA AND FACEBOOK DATA - JUNE 30, 2020						
ASIA	Population (2020 Est.)	Internet Users, (Year 2000)	Internet Users 31-MAY-2020	Penetration % Population	Users % Asia	Facebook 31-MAR-2020
India	1,380,004,385	5,000,000	560,000,000	40.6 %	24.3 %	251,000,000



Source: http://www.michaelkaul.de/History/history.html

The Internet and Scandinavia

- Internet: June 1973 to Kjeller
- List_of_Internet_pioneers [Wikipedia]
  - Yngvar Lundh, Paal Spilling
- Application development
  - .php, OpenSource, Linux, Skype, Spotify
  - OperaSoftware, FAST Search
  - Nokia, Ericsson
  - Telenor, Telia
- Mobile Internet:
  - GSM
  - Service adaptation



Internet and the SDGs in Africa

Source: afrobarometer.org

- Public Opinion on SDGs
- Priorities by people in Africa
  - decent work
  - zero hunger
  - good health
  - …

https://blogs.worldbank.org/africacan/how-do-africans-priorities-align-with-the-sdgs-and-government-performance-new-results-from

Reality of the Digital Divide

- Internet through the mobile network
  - Mobile network is business-driven

- "Boys have the toys"
  - digital divide in both devices
    - Example Smartphone ownership:
      33% male, 16% female (Bangladesh)
  - mobile broadband access

More than coverage

CAPEX

OPEX

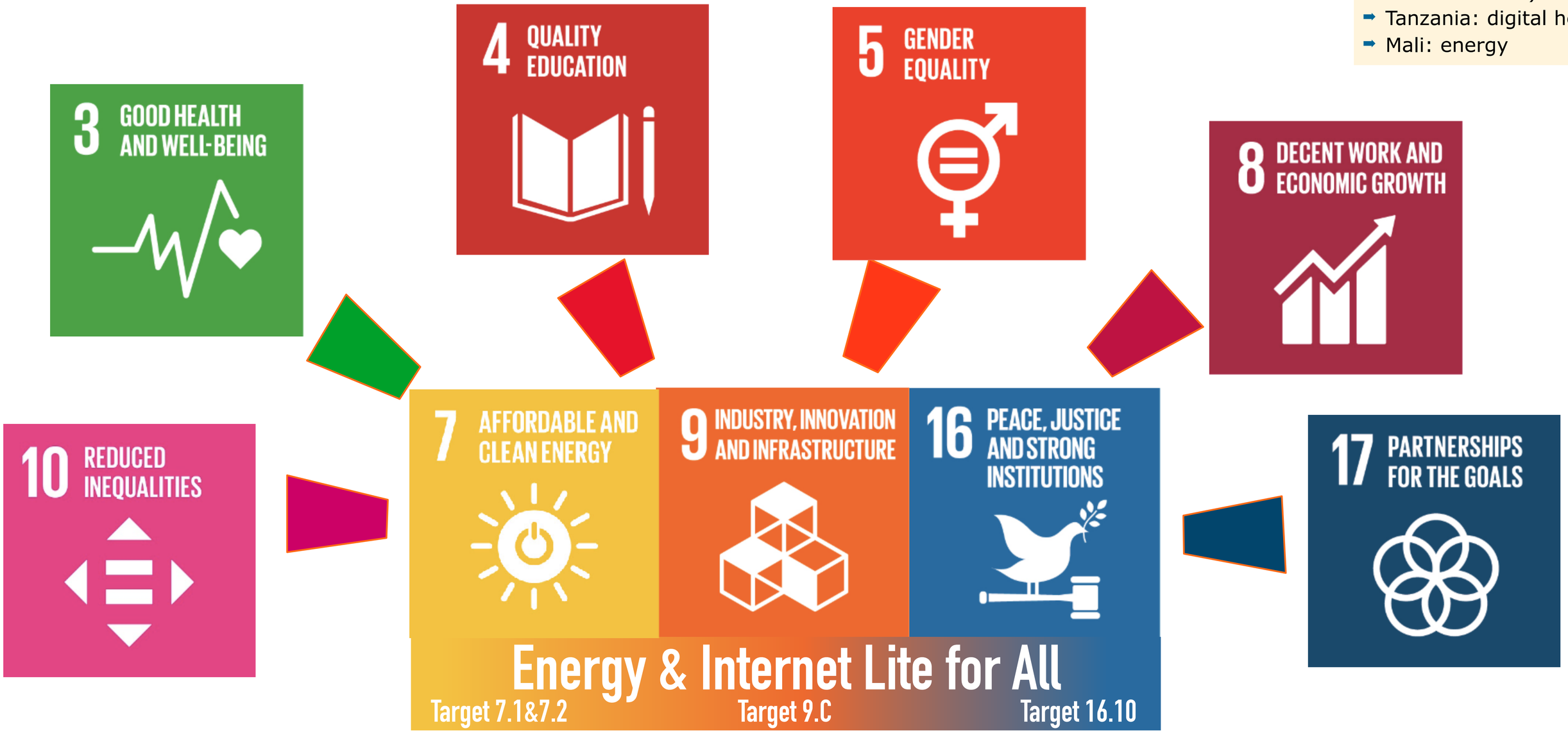
TZ: 640 USD for 4 Mbit/s
GH: 600 USD for 5 Mbit/s
KE: 600 USD for 10 Mbit/s
"every single month"

Affordable Energy & Internet Lite for All

the catalysts for the goals

Showcase
"Non discriminating access" project

- funded by RCN and Mfa/Norad (14.9 MNOK for 2017-2020)
- Tanzania: digital health
- Mali: energy



Providing Internet for All

- **Free access** to **Information** (Internet Lite)
  - 1) Access - one **Information Spot** per village
  - 2) Skills - Health, Education, Agriculture
  - 3) Regulations - Freemium model
  - 4) Inclusion -
    Free access for all #LeaveNoOneBehind

- Internet Lite & **Freemium** model for access
  - **free access to National Knowledge Portal** for all
  - **premium** access to **broadband**
  - sustainable solution

Decentralised value creation

Internet Lite - AMP experience

- ➡ Freemium model for access
  - free access to **Internet Lite**
  - premium access to broadband

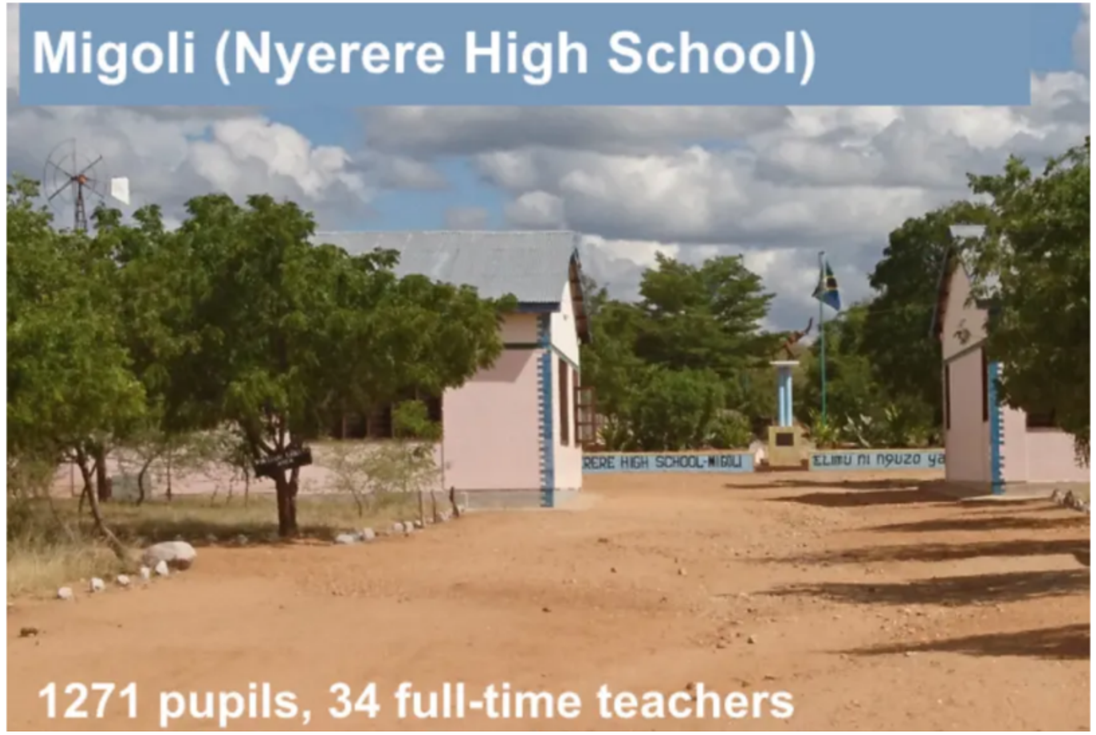
- ➡ support Community Networks
  - democratise the access to the Internet
  - **InfoSpots** with local content
    - increase the value in the society

Basic Internet Foundation

Internet Lite to the Migoli High School

josef 8 months ago

The Migoli High School has 1271 pupils (Apr2019) and 35 full-time teachers. The high school is located about 3 km outside of Migoli in the Iringa district in Tanzania.



https://basicinternet.org/internet-lite-to-the-migoli-high-school/AMP/

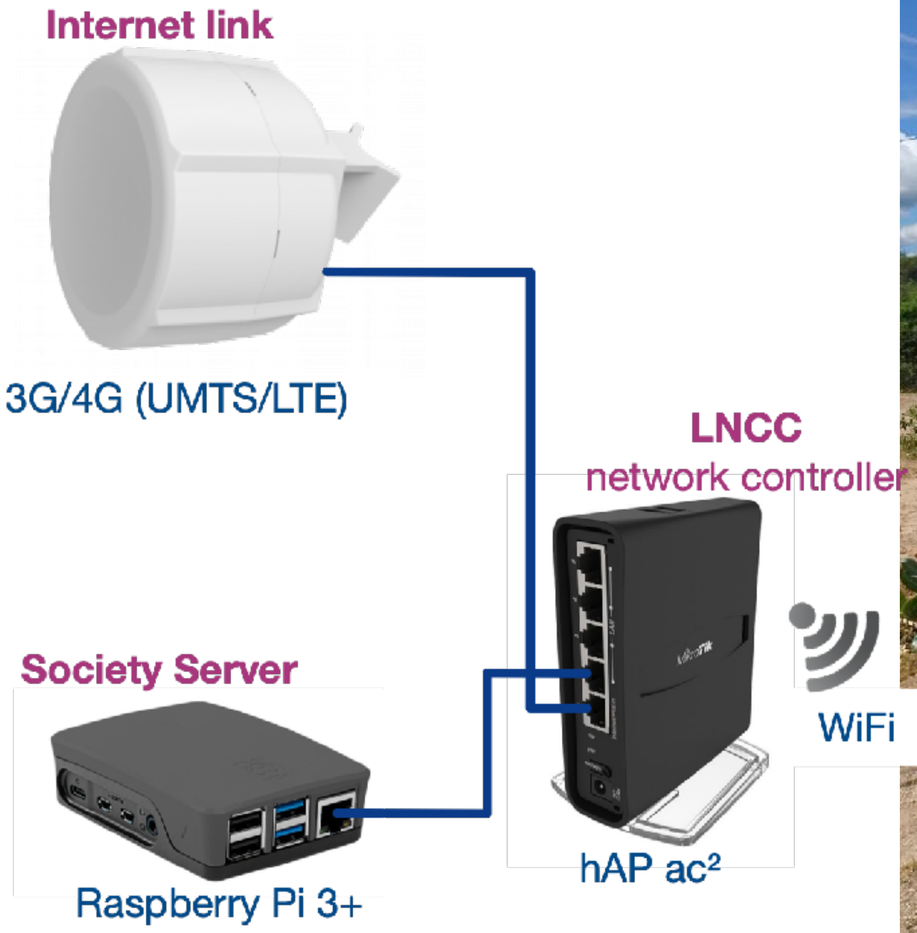
Communities driving the change:

Catherine connects schools

10 schools in 10 areas
in one month
scale-up now…

Technology Used

http://Solutions.BasicInternet.no



Bure

Free access to information - in Ethiopia

- Government Ethiopia - Agreement
  - “free access to health & education”
  - Ministry of Health
  - Ministry of Education

- Ethio Telecom offers “zero rating”
  - Health (MoH): MoH.gov.et
  - Ephi.gov.et & Covid19.et
  - Education: National Digital Library NDL.ethernet.edu.et

- follow-up from discussions after African Innovation Week (AI

ethio telecom
ኢትዮ ቴሌኮም

ግንቦት 24 ቀን 2012 ዓ.ም

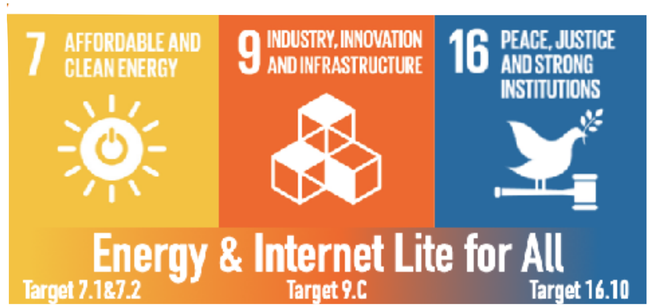
ኢትዮ ቴሌኮም የከፍተኛ ትምህርት ተቋማት ተማሪዎች እና መምህራን ትምህርታዊ መረጃዎችን ከ http://ndl.ethernet.edu.et/ በነፃ ማግኘት እንዲችሉ አደረገ

በአገራችን የኮሮና ቫይረስ (COVID-19) ወረርሽኝን ለመከላከል በመንግስት በኩል በርካታ እርምጃዎች እየተወሰዱ ሲሆን ከእነዚህም መካከል የገፅ ለገፅ ትምህርት በማቋረጥ ተማሪዎች ቤታቸው እንዲቆዩ መደረጉ ይታወቃል።

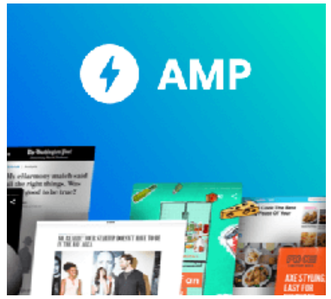
ከዚሁ ጋር በተያያዘ ኩባንያችን ከግንቦት 21 ቀን 2012 ዓ.ም ጀምሮ የከፍተኛ ትምህርት ተቋማት መምህራን እና ተማሪዎች ከትምህርት ጋር ተያያዥነት ያላቸውን አጋዥ መረጃዎች ከ **http://ndl.ethernet.edu.et/** **በነፃ ማግኘት** እንዲችሉ በማድረግ የመማር ማስተማሩ ሂደት እንዲቀጥል የበኩሉን አስተዋፅኦ ማድረጉን በደስታ ይገልፃል።

በተመሳሳይ ሁኔታ ኩባንያችን ስለወረርሽኙ ወቅታዊ መረጃ ለህብረተሰቡ እየሰጡ የሚገኙትን የጤና ሚኒስቴር http://www.moh.gov.et ፣ የኢትዮጵያ ህብረተሰብ ጤና ኢንስቲትዩት http://www.ephi.gov.et እንዲሁም የተቀናጀ የኮቪድ 19 መቆጣጠሪያ ስርዓት ድረ-ገፅን http://www.covid19.et በነፃ እያቀረበ መሆኑ ይታወቃል።

Next Generation Internet:
Solutions for ~3.5 Billion non-digital people



- Value proposition:
  - Freemium access: Basic4All
  - Local empowerment, Relevant content (Village empowerment)



- Technology and Skills
  - Local Info Spots
  - Off-line broadband content

- Affordability & Regulations
  - OPEX <20 USD/month per school
  - Public-private partnership
  - Free access to national knowledge portal