

UiO : Department of Technology Systems
University of Oslo

Zimbabwe Community Network Summit 2021

From InfoSpots to Community Networks - the scale-up for digital empowerment

Josef Noll^{1,2}, Catherine R. Kimambo^{2,3}, Wisam A. Mansour²

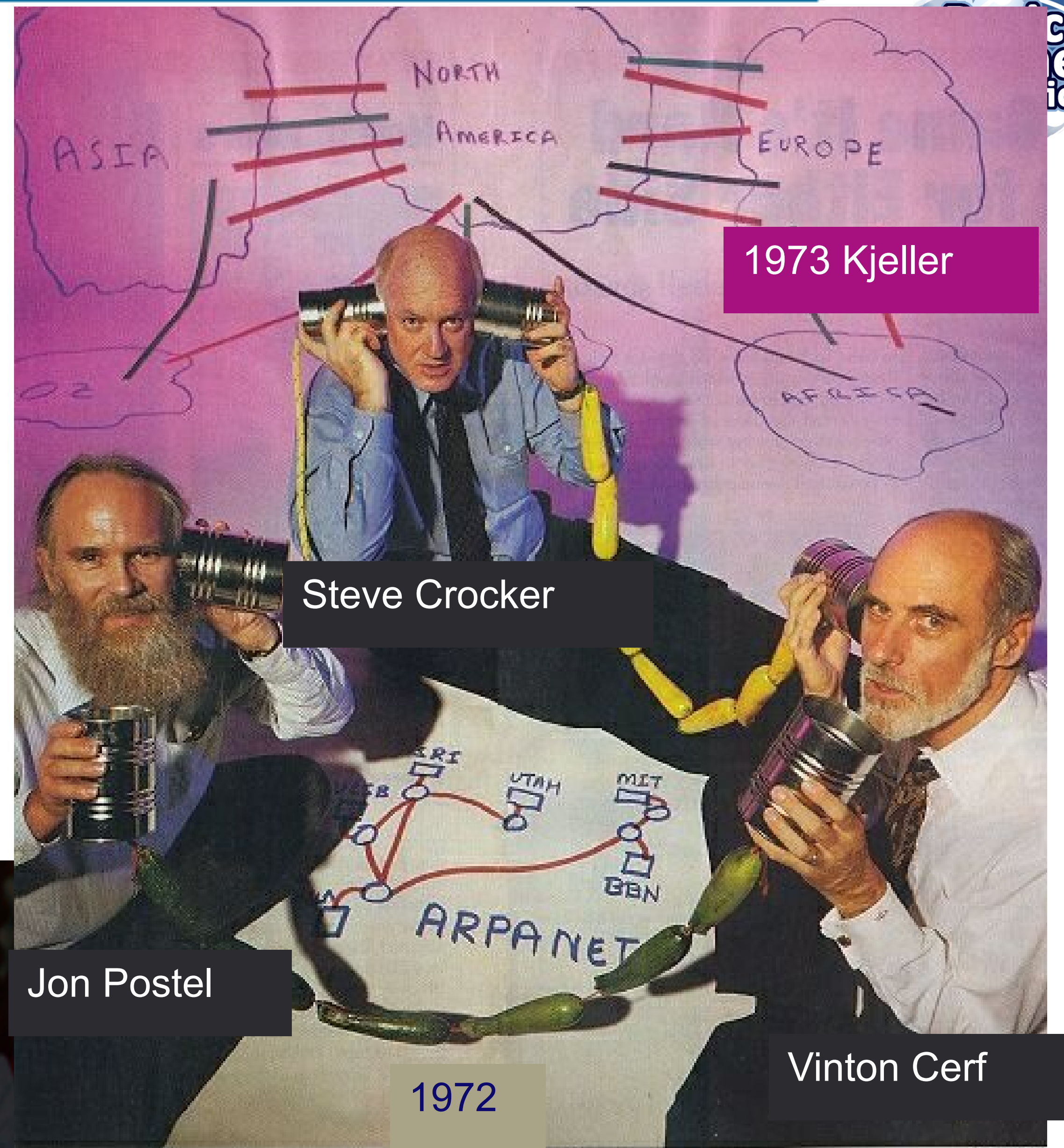
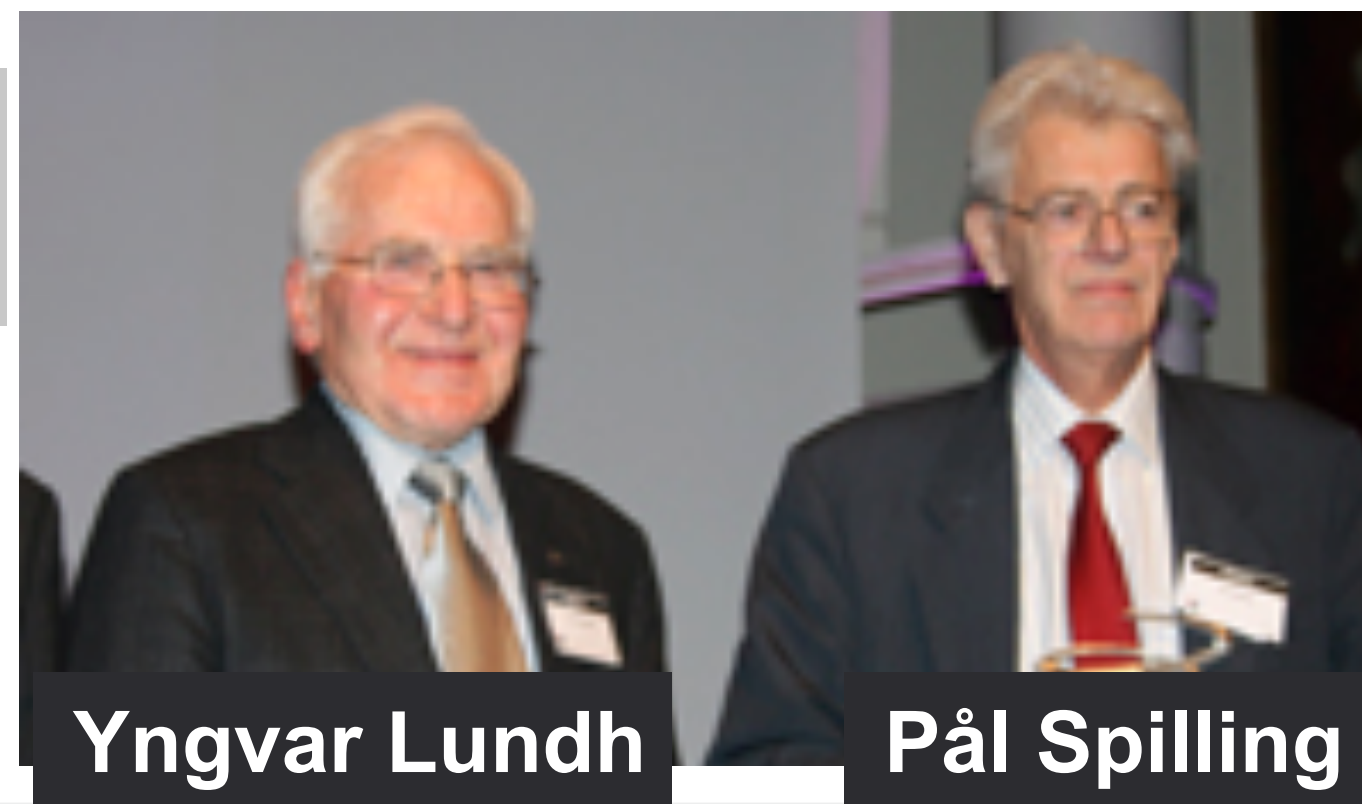
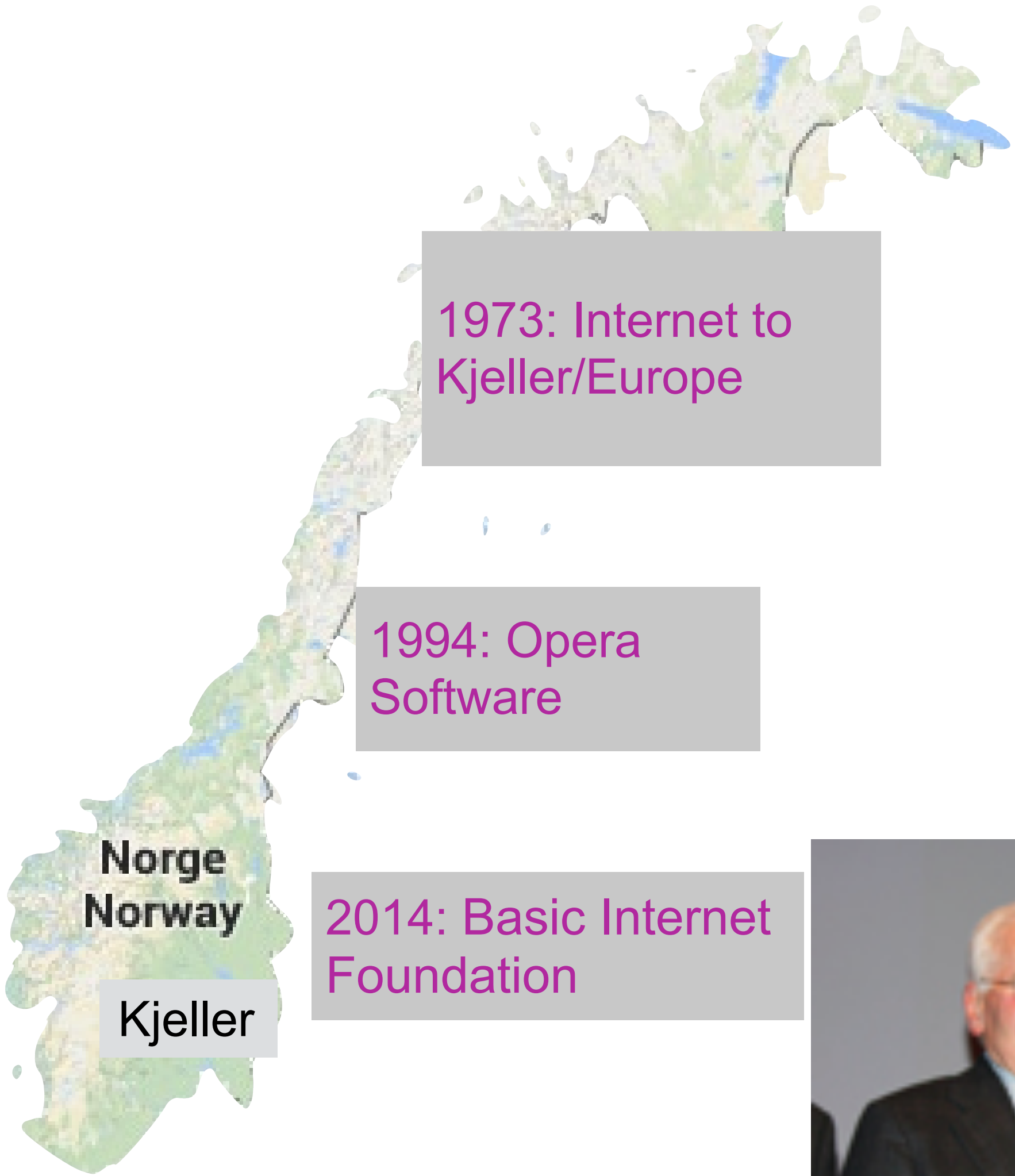
¹University of Oslo, Department of Technology Systems

²Basic Internet Foundation, ³African Child Projects

Kjeller, Norway, m: +47 9083 8066, e: josef@jnoll.net



Next Generation Internet as basis for empowerment and trust



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

“Our mission is to improve the life of **every human** through **free access to information** on the Internet....”



The building blocks for Digital Empowerment





Summary

Access

Skills

Regulations

Inclusion



Norwegian Ministry of Foreign Affairs

Meld. St. 11 (2019–2020) Report to the Storting (white paper)
Digital transformation and development policy



[ps://www.regjeringen.no/no/dokumenter/meldst11_summary/id2699502/?ch=1](https://www.regjeringen.no/no/dokumenter/meldst11_summary/id2699502/?ch=1)

Message to the Parliament 11 (2019-2020) Digital transformation and development policy

- ➔ Gender divide: “Boys have the toys”
 - digital divide in devices and
 - mobile broadband access
- ➔ Skills: literacy, digital
- ➔ Value-proposition by the Internet

- ➔ Report to the Parliament of Norway (Meld. St. 11 (2019-2020))

16

Meld. St. 11

2019–2020

Digital transformasjon og utviklingspolitikken

Boks 2.2 Digital inkludering og tilgang til informasjon for alle

Norge støtter stiftelsen Basic Internet Foundation gjennom finansieringsmekanismen Visjon 2030. Stiftelsen, som er et samarbeid mellom Kjeller Innovasjon og Universitetet i Oslo, bruker digitalisering til å gi tilgang til informasjon som er grunnlag for inkludering og styrking av individers og lokalsamfunns rettigheter.

Basic Internet Foundation jobber med å gi fri tilgang til informasjons-internet eller «Internet Lite», og har som overordnet mål å sikre digital inkludering. Stiftelsen har utviklet en løsning der digitalt innhold som krever mye båndbredde (for eksempel videoinnhold) siles ut, mens «lettere» innhold (tekst og bilder) gjøres åpent tilgjengelig. Stiftelsen anslår at én persons betalte bruk av innhold som krever større båndbredde, kan finansiere fri tilgang til «lettere» informasjonsinnhold for flere titalls brukere.

Stiftelsen har utviklet billige løsninger for wi-fi-hotspots som installeres i landsbyer som ikke har internettdækning. Helseinformasjon fra lokale helsemyndigheter lastes opp på en lokal server tilknyttet en wi-fi-hotspot, og dette innholdet kan lastes ned gratis av landsbybefolkningen. I tillegg skal stiftelsen tilby svært rimelig «Internet Lite» til landsbybefolkningen i samar-

beid med lokale mobiloperatører. Dette testes nå ut i Tanzania og DR Kongo.



Figur 2.4 Leder av lokalsamfunnet, Mbaash, foran lokal helseklinikk som har fått internettilgang via Basic Internet Foundation.

Foto: Josef Noll, Basic Internet Foundation.

Meaningful connectivity tailored towards the needs & capabilities

Self-actualisation
Entertainment

Empowerment, Work
Digital Transformation

Explore, Affection
Opportunities

Value creation
Trust & confidence



Mobile Broadband
20 USD/month/person



Community network
50-100 Mbps
200-500 USD/month



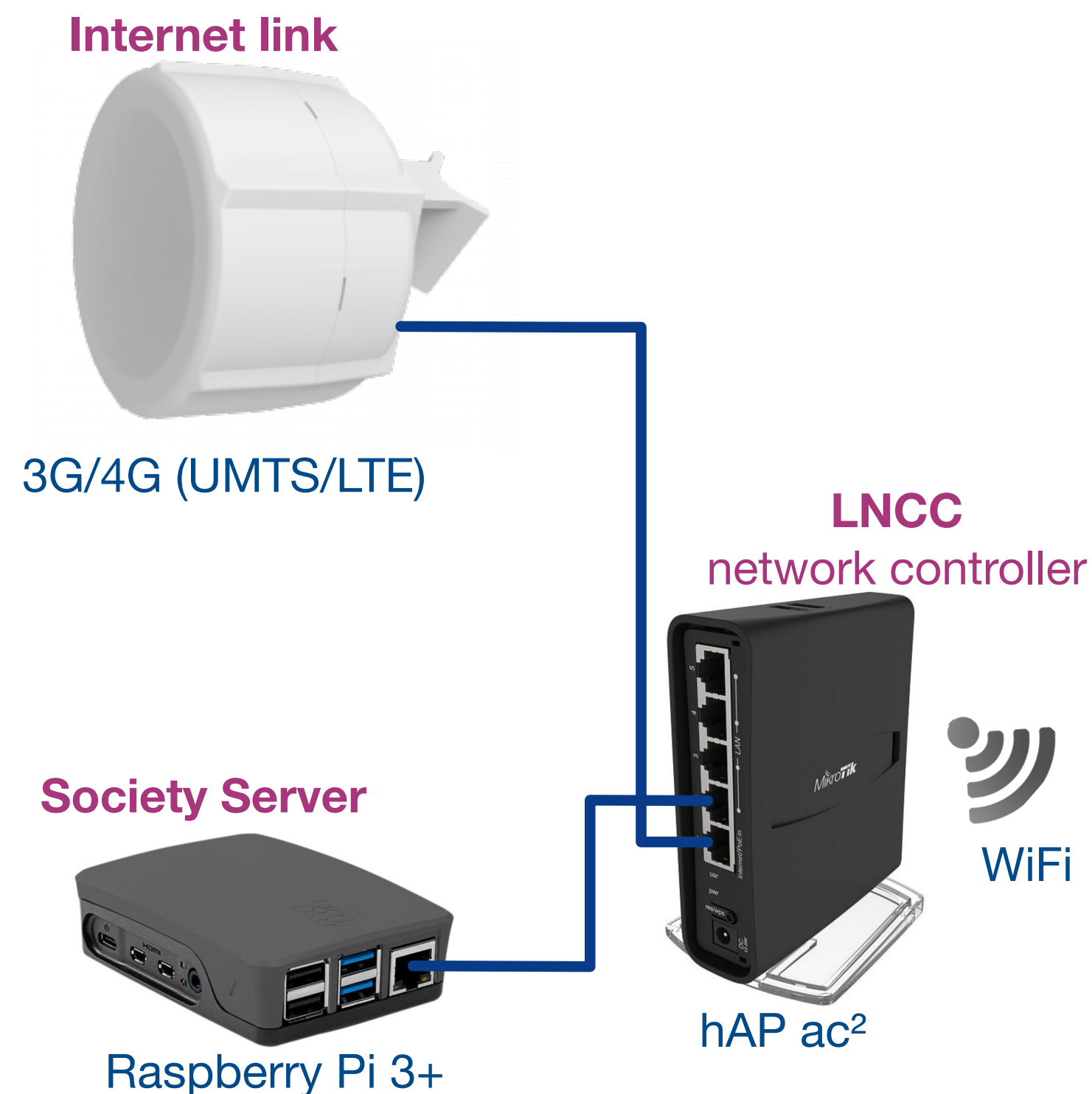
Narrowband
~5 Mbps
58 USD/month



InfoSpot
10 GB/month
<20 USD/month

Solving the Access

- wireless information spot (InfoSpot)
- Reaching out >20 km to mobile network
- Affordable solution: OPEX <20 USD/month



Village/Community Portal Skills & Value for the Community

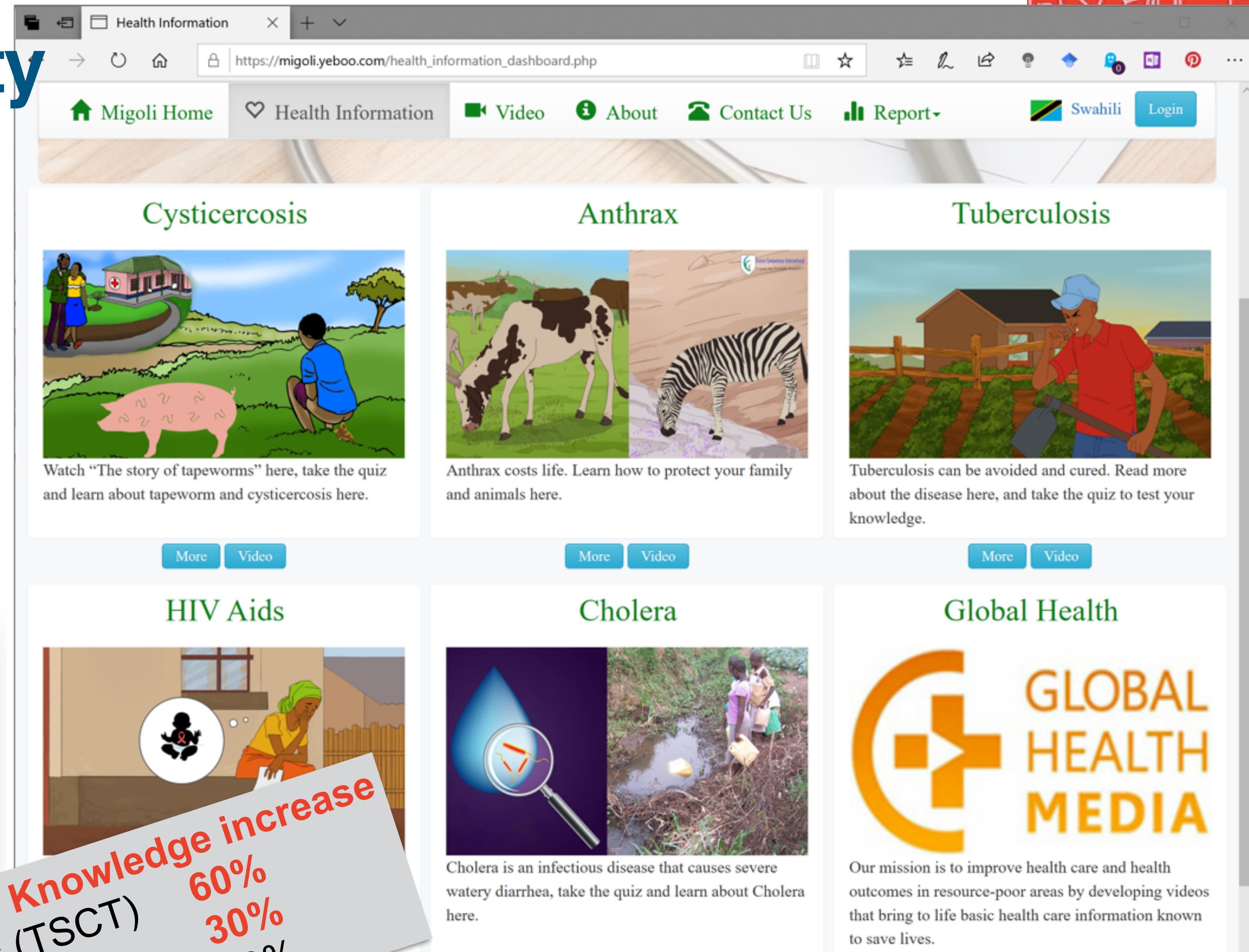


The website will contain locally stored information on

- Health
- Entrepreneurship
- Education
- Agriculture
- Financial inclusion (e.g. via Women Community Centers)



Results in TZ: **Knowledge increase**
 Cysticercosis (TSCT) 60%
 Tuberculosis 30%
 HIV/AIDS 13%



45 schools connected Sep/Oct 2021

School locations AHERI-CISS-D

#	name	location
1	ST. PAUL ORIANG MIXED SCHOOL	http://plus.codes/6GFPHW3H+R7
2	ORANDO MIXED SEC SCHOOL	http://plus.codes/6GFPHW6Q+8Q
3	MALELE MIXED SEC SHOOL	http://plus.codes/6GFPCV7+45
4	ULAFU MIXED SEC SCHOOL	http://plus.codes/6GGP38GP+J7
5	BISHOP OKOTH GIRLS MBAGA SEC SC	http://plus.codes/6GGP37HH+Q6
6	PALA MIXED SEC SCHOOL	http://plus.codes/6GFPHX9J+89
7	KOLWENY KINGSWAY SEC SCHOOL	http://plus.codes/6GFPHWMC+F7
8	KIT MIKAYI MIXED SEC SCHOOL	http://plus.codes/6GFVGRX+7X
9	NDURU MIXED SEC SCHOOL	http://plus.codes/X8XW+7F
10	DANIS OBARA SEC SCHOOL	http://plus.codes/6GFPHVRC+PQ
11	ATELA MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
12	WANG'APALA BOYS HIGH SCHOOL	http://plus.codes/6GFPHW3H+R7
13	APUOYO MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
14	AGORO OYOMBE SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
15	RINGA GIRLS HIGH SCHOOL	http://plus.codes/6GFPHW3H+R7
16	ORERA MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
17	DUDI GIRLS SEC SCHOL	http://plus.codes/6GFPHW3H+R7
18	BORO MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
19	ST BARNABAS SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
20	SINAGA GIRLS SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
21	DIENYA SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
22	RAMULA MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
23	DHENE MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
24	ST WILIAMS GENDRO SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
25	ST PATRICK'S SENGERE SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
26	ST MAR'YS YALA SCHOOL	http://plus.codes/6GFPHW3H+R7
27	NGIYA MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
28	OBAMBO MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
29	SENATOR OBAMA SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
30	ST MATHEW NYASIDUO MIXED SCHOL	http://plus.codes/6GFPHW3H+R7
31	ST MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
32	ST MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
33	ST MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
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35	ST MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
36	AL MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
37	ST MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
38	AL MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
39	MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
40	RIMATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
41	NOMATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
42	ST MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
43	BISHOP MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7
44	AK MATHIAS MIXED SEC SCHOOL	http://plus.codes/6GFPHW3H+R7

- parallel to GIGIconnect first phase
- **5 Mbit/s over LTE** (dedicated SIM cards)
- 58 USD/month



sponsored by our premium partner



Scale-up Tanzania

Catherine connects schools



10 schools in Mar2021
10.131 students connected
427 teachers connected

scaling up to 50 schools with
Vodacom Dec2021 & 150
schools UCSAF Q1.2022







12 countries in Africa



Ethiopia:
Koye Secondary School



Tanzania:
scale up to
200 schools

Summary

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

→ Scale-up to Community- and Commercial Networks

+18 dB
>20 km

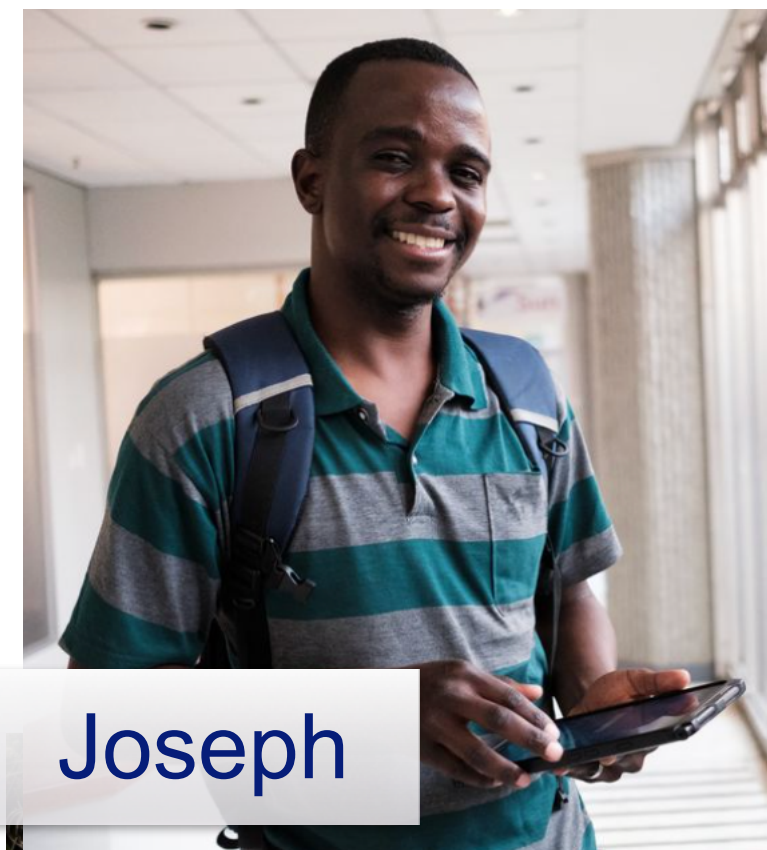
“Providing Internet to the basic of the pyramid isn't a question of affordability, but rather a question of sustainability”
Internet Governance Forum, Panel, WI

At least
one Information Spot
per village

Thanks to



Catherine



Joseph



Eden



Barrack



and all others



UCSAF

