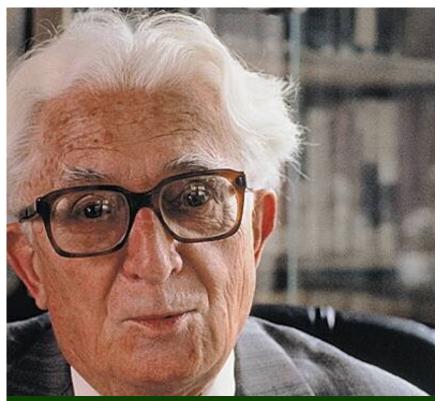


Three Economies



Fernand Braudel

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



A Jar of Stones Metaphor

Even though the stones appear to fill the jar, it is less than have full by volume.

Local Operators

Smaller operators don't necessarily need to scale individually but rather scale in number of operators





Subsistence Operators

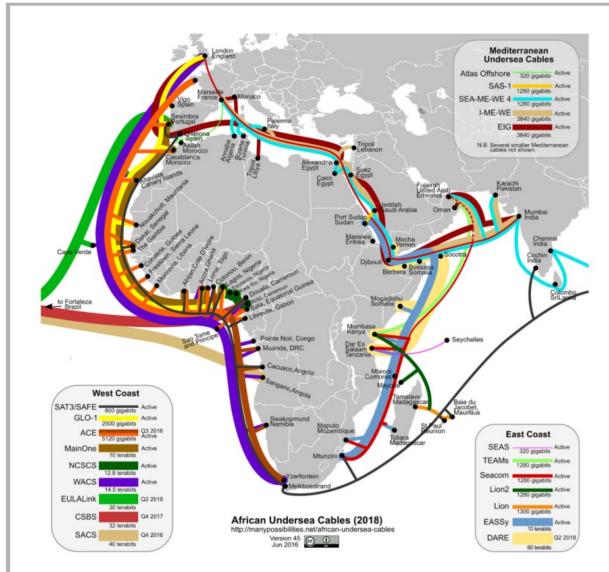
Cooperative and common pool resource models may create sustainable access where commercial models fail.

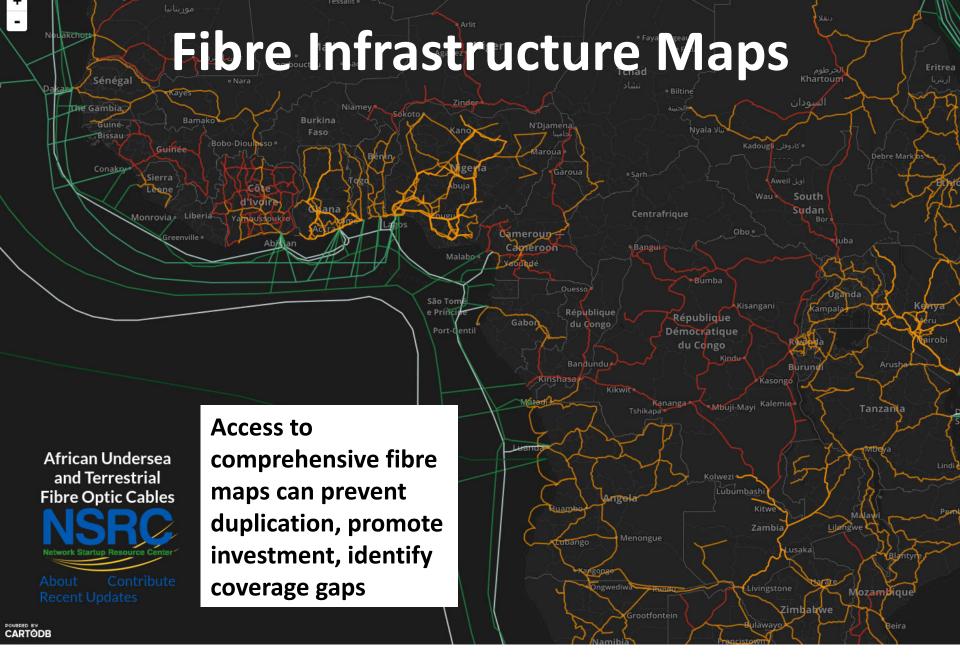
Transparency and Public Engagement

The Impact of Fibre on Wireless

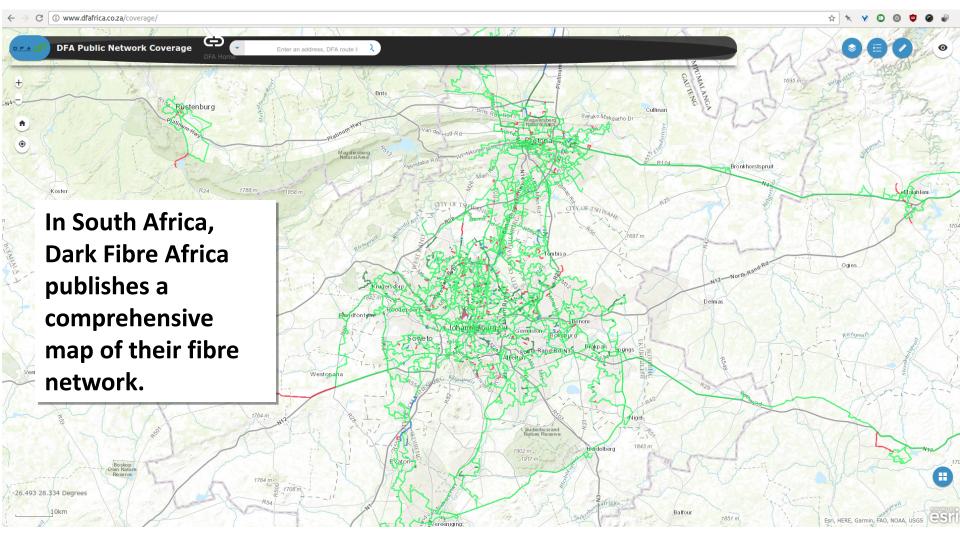
The growth of undersea fibre optic capacity has been a catalyst for change.

The impact of technological change often takes years to manifest

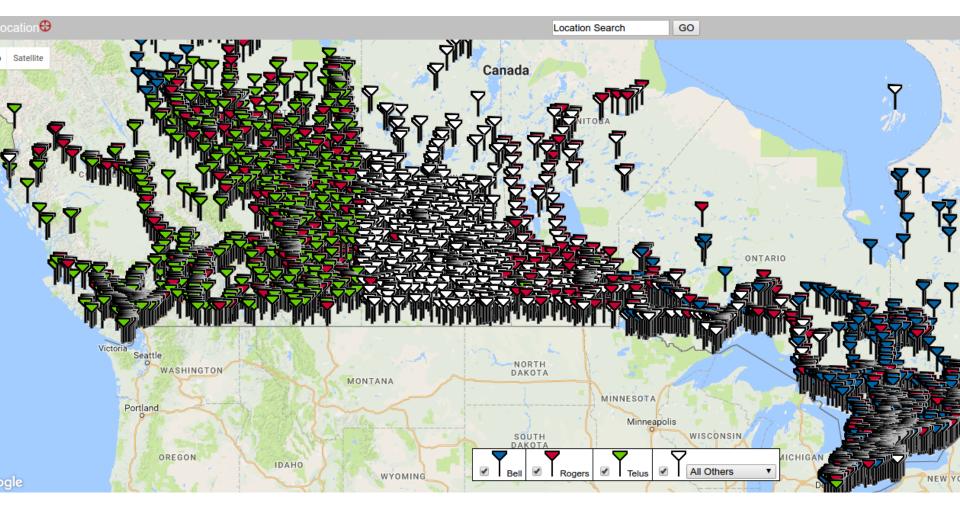


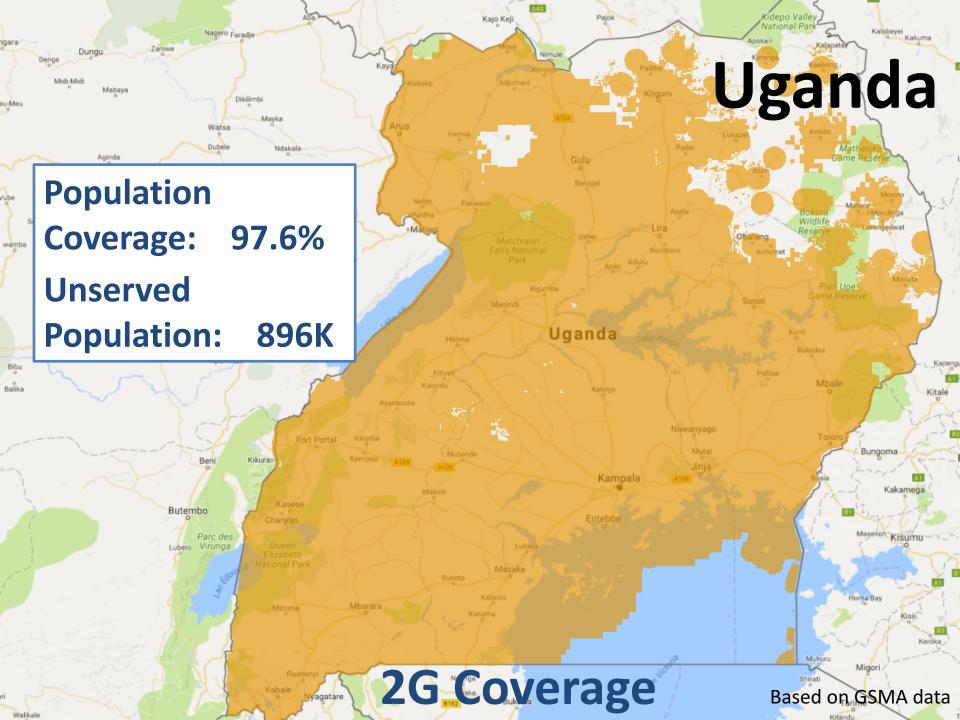


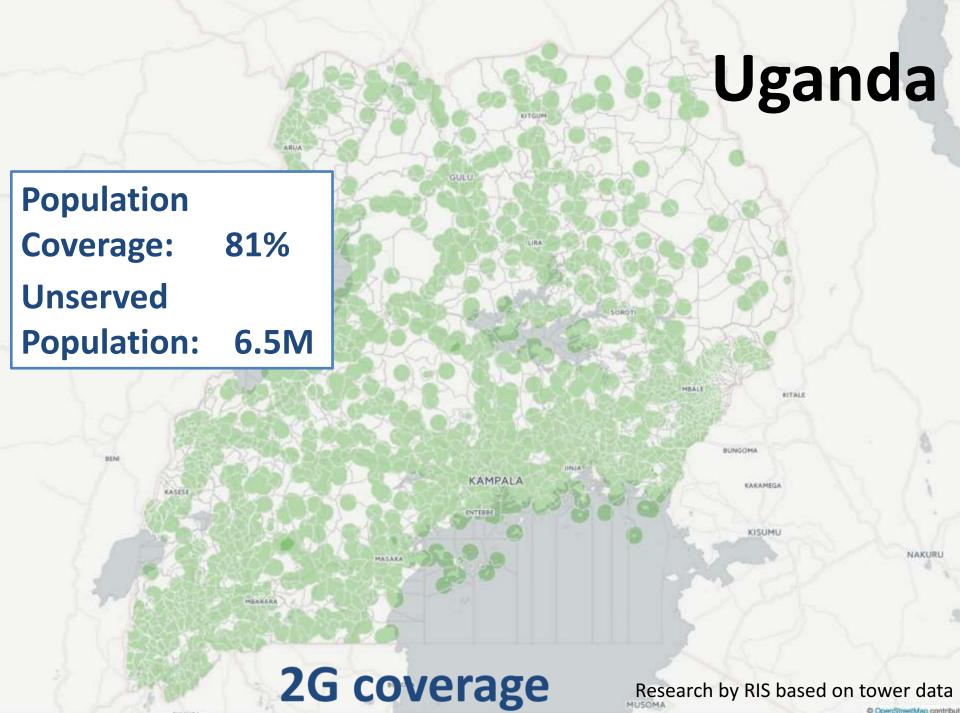
Good Practice



Tower Data







A Global Problem

Iowa: Rural broadband, and the unknown costs of the digital divide - Columbia Journalism Review - Google Chrome

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 ▲ https://www.cjr.org/special_report/midterms-2018-iowa-rural-broadband.php/

Iowa: Rural broadband, and the unknown costs of the digital divide

By Lyz Lenz OCTOBER 15, 2018 Ahead of the November 6 elections, CJR invited writers to spotlight stories that deserve closer scrutiny, in their states and beyond, before voters cast their ballots. Read other dispatches from "States of the Union" here.



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THIS STORY

he last time I almost died was in February. A late winter thaw had made me overconfident in the roads, and so I'd gone out in search of an abandoned pioneer church just outside of Cedar Rapids, Iowa. One hour into the journey and I was stuck on a dirt road, my

Mazda caught in an icy rut as sleet came down in sheets. There was no one around for miles. My phone, which has the fanciest data plan Verizon can muster, had no service, no data. I couldn't see any houses. There was no one to hear me scream.

According to US News and World Report, Iowa is the most connected state in the nation, which presumably means they have a high percentage of households with access to high-speed internet. But the data used for that analysis is deeply flawed. It is easy to find yourself completely unconnected from the wires and signals that pull us all together through our computers and mobile devices.

For those of us in America who are extremely online, it's easy to think of the internet as the source of our problems misinformation, Twitter bots, Russian hacking, social media stress. The real source, however, is the huge gap in information services. Despite bipartisan support on the issue, the crisis of America's divide has failed to become a headling grapher or gamer any.

What the world needs now.

🌗 E

As an independent non-profit, the Columbia Journalism Review is in a unique position to help journalism be at its best. But we can't do it alone.

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MOST POPULAR

Sarah Kliff brings transparency to ER prices, one hospital bill at a time

The clause freelance writers should fight to remove from their contracts

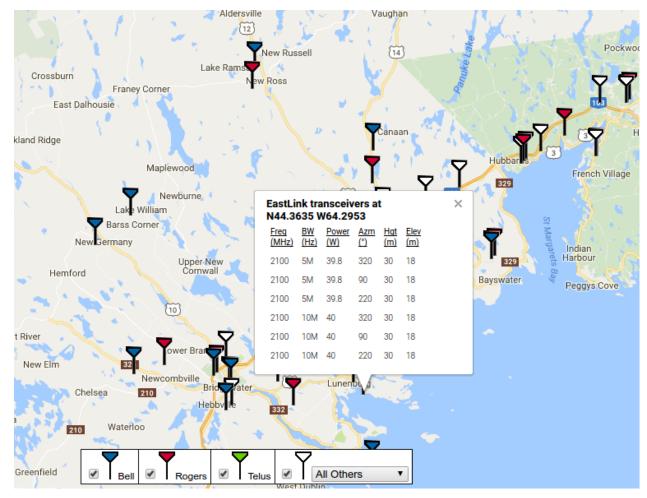
Libel law is having a moment

The mystery of Tucker Carlson

Saudi Arabia faces fresh scrutiny

Reports of Iowa's connectivity are greatly exaggerated... many providers, large and small, often overestimate their connectivity because they simply lack accurate, independently verified maps.

Good Practice – Canadian Regulator

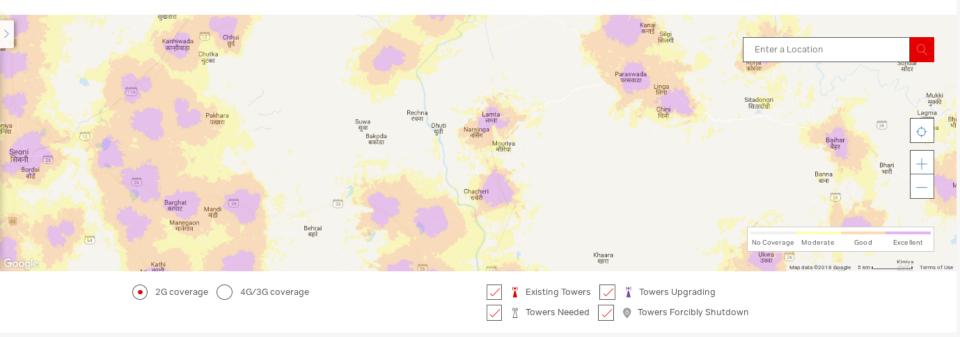


- Operator
- Location
- Frequency
- Height
- Power

English

opennetwork

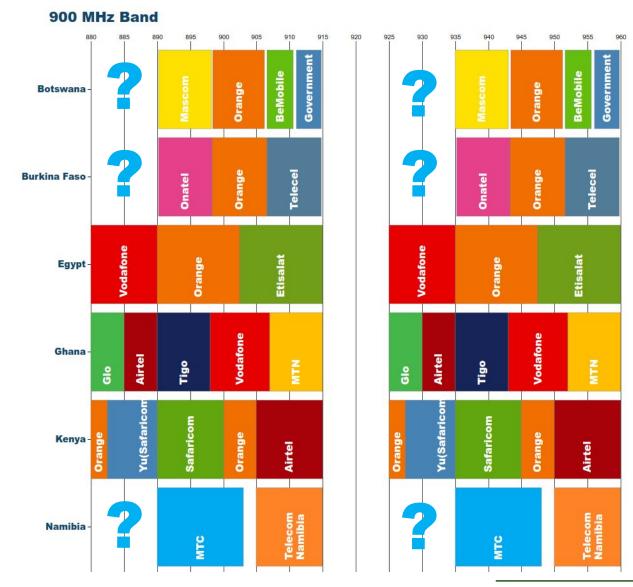
Because you have a lot to say. And we have nothing to hide.



WHAT IS INDIA'S FIRST OPEN NETWORK?

In 2015, Project Leap took the first brave step in building a truly transparent network. It is now

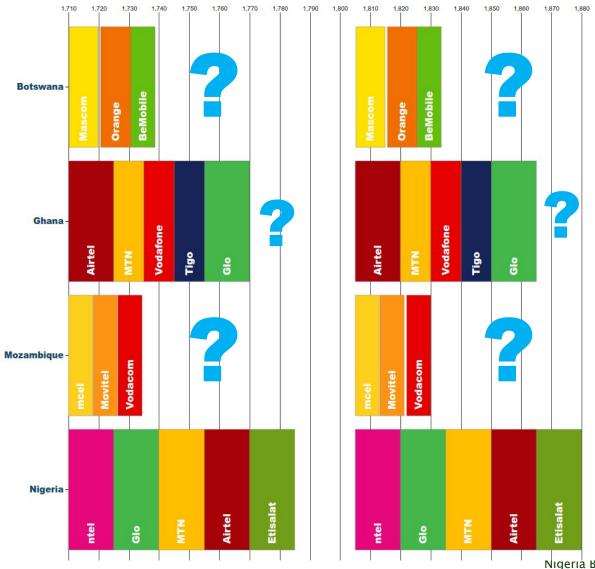
Spectrum Assignments



Nigeria Broadband Infrastructure Forum 30 October 2018

Spectrum Assignments

1800 MHz Band



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Good Practice

LIST OF ACCESS FREQUENCIES ASSIGNED TO OPERATORS

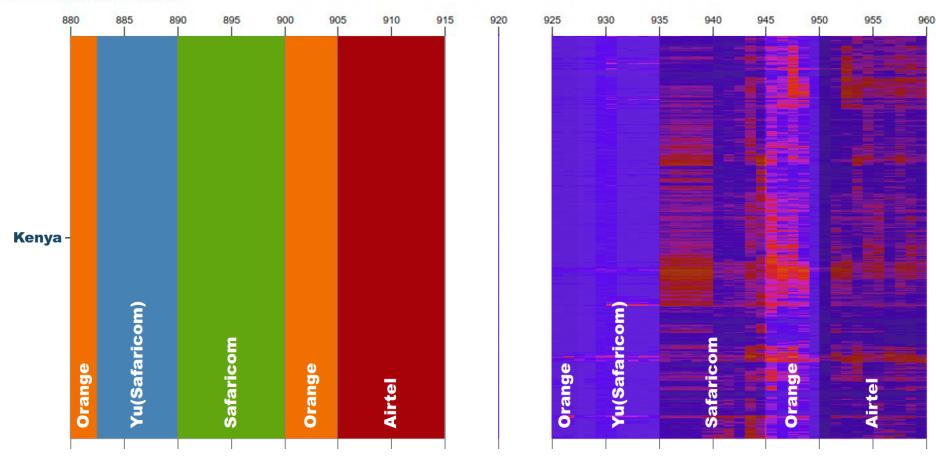
A. MOBILE WIRELESS ACCESS

Frequency Band	Amount of Spectrum	Assigned Operator	
800 MHz	5MHz paired	Telkom Kenya Limited P.O. Box 30301-00100 NAIROBI	
900 MHz	10MHz paired	Safaricom Limited P.O. Box 46350-00100 NAIROBI	
900 MHz	10MHz paired	Celtel Kenya Limited P.O. Box 73146-00200 NAIROBI	
900MHz	7.5MHz paired	Telkom Kenya Limited P.O. Box 30301-00100 NAIROBI	
900MHz	7.5MHz paired	Essar Telecom Kenya Limited P.O. Box 45742-00100 (ATR-)BI	
1800MHz	10. 111 2 pirel	Sa proom Limited P.O. Box 46350-00100 NAIROBI	
1800MHz	10MHz paired	Celtel Kenya Limited P.O. Box 73146-00200 NAIROBI	
1800MHz	10MHz paired	Telkom Kenya Limited P.O. Box 30301-00100 NAIROBI	
1800MHz	10MHz paired	Essar Telecom Kenya Limited P.O. Box 45742-00100 NAIROBI	
2100MHz	10MHz paired	Safaricom Limited P.O. Box 46350-00100 NAIROBI	
2100MHz	10MHz paired	Celtel Kenya Limited P.O. Box 73146-00200 NAIROBI	
2100MHz	10MHz paired	Telkom Kenya Limited P.O. Box 30301-00100 NAIROBI	

			1800MHz BAND-GSM		
OPERATOR	MTEL	GLO	MTN	AIRTEL	ETISALAT
Tx FREQUENCY	1805-1820	1820-1835	1835-1850	1850-1865	1865-1880
Rx FREQUENCY	1710-1725	1725-1740	1740-1755	1755-1770	1770-1785
STATES					
LAGOS					
OGUN					
ONDO					
OSUN					
EKITI					
ογο					
KWARA					
EDO					
RIVERS					
BAYELSA					
AKWA IBOM					
CROSS RIVER					
EBONYI					
ABIA					
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ANAMBRA			NICCI		
ENUGU		-			m
BENUE	2			Þ	
KOGI	7	G	<u>S</u>		<u>s</u>
NIGER	M -TEL	GLO	ゴ	AIRTEL	
ABUJA	- <u>-</u>	0	2	<u> </u>	
NASSARAWA					ETISALAT
TARABA					
PLATEAU					
BAUCHI					
GOMBE					
ADAMAWA					
BORNO					
YOBE					
JIGAWA					
KANO					
KADUNA					
KATSINA					
ZAMFARA					
KEBBI					
зокото					

Monitoring Spectrum Use

900 MHz Band





Thank you!



ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS



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https://manypossibilities.net



Nigeria Broadband Infrastructure Forum 30 October 2018