

# Let's Do More Than Just Talk About Bridging the Digital Divide

Governments can advance digital inclusion by establishing high-speed broadband access and wireless connectivity everywhere, creating new rural use cases with tangible benefits and deploying local champions to demystify technologies.

By Paul Atkinson / *STL*

**T**he COVID-19 pandemic accelerated the race to digital adoption. Because of the breakneck speed at which it unfolded, taking the connectivity that enabled remote work for granted is easy. Tapping into instantaneous, app-based economies or communicating on collaboration software such as Zoom became as natural to many people as turning a tap off or on.

But in rural areas in the U.K., although 93 percent of residents reported an increase in their use of online services over the course of the pandemic, one in six remained unable to access superfast broadband or indoor 4G connections. This led the nonprofit research organization Rural England CIC to warn that many residents in these regions are at risk of digital exclusion – being left behind while the rest of the world races toward a digital future.

Of course, this phenomenon isn't confined to the U.K. In many remote areas everywhere, the situation is more dire, affects more people, and is more complex. It's worth noting that incredible progress *has* been made in connecting the planet, including rural areas. Astonishingly, less than 7 percent of Earth's population had internet access at all in 2000. Now, approximately 5 billion people are connected – a figure that grew from 4.1 billion people pre-pandemic in 2019.

In recent years, many governments have launched programs to help close the

connectivity gap and bring digital technologies to the previously unconnected. Developed nations, such as the U.S., China, Singapore, South Korea and the U.K., have engaged in huge fixed broadband and data infrastructure initiatives. In the U.S., the FCC is investing \$20.4 billion in a Rural Digital Opportunity Fund, and across India, there's ongoing work with the Digital India Mission, Atram nibhar Bharat, and Ghar Tak Fibre programs.

But even with such significant strides forward, much of the world remains unconnected, especially in remote areas. Almost 37 percent of the world's population – 2.9 billion people – are still completely offline.

The focus, however, can't be only on addressing the lack of physical infrastructure to connect these regions, although that remains a priority. In tandem with these initiatives, community-led education drives must be encouraged to inform the unconnected of the genuinely transformative power of digital technologies.

Although the “coverage gap” is billions strong, there also exists a vast “usage gap” – millions of people live in areas covered by broadband networks but, for whatever reason, don't use them. For instance, 70 percent of Africa's regional population has mobile internet available, but less than 25 percent actually use it, an enormous uptake gap of nearly 50 percent.



Millions of people live in areas covered by broadband networks but, for whatever reason, don't use them. For instance, 70 percent of Africa's regional population has mobile internet available, but less than 25 percent actually use it.

Coverage, then, is only one piece of the puzzle. To complete the picture, a more holistic view is required. Adopting a new digital framework that aims to include everyone is the goal. This will require laying down good-quality infrastructure and using connectivity to achieve social transformation – *real* digital inclusion.

Successful initiatives will require multipronged approaches that establish and maintain connectivity, create space for government-driven applications and schemes, and enable powerful, practical rural use cases, such as telehealth and e-farming. They should be accessible, affordable and appealing enough to drive mass adoption in underserved regions. Otherwise, any discussion about bridging the digital divide is merely paying lip service to these complex challenges.

### **POWERFUL RURAL-USE CASES**

Many people in rural areas exposed to digital technology for the first time understand its consumer appeal very well. After all, the immediate benefits

of YouTube access are somewhat self-evident. Consumption is only one facet of connectivity, and its potential for genuinely transformative change is undervalued.

People need the digital tools and infrastructure to help improve their living standards. Endless examples show a world of imaginative possibilities that open up when they do. Consider, for example, low-data-usage chat platforms, such as WhatsApp. The application's active user numbers are staggering – it has more than 2 billion users worldwide and is one of the few apps that has been downloaded more than 5 billion times – and it has become an essential tool for doing business.

Creative applications of the technology have changed the lives of people in regions such as Tamil Nadu, where the quick, easy, instantaneous nature of the app helps goat farmers reach new customers willing to pay better prices for the exotic breeds they rear.

Crucially, these new models also allow farmers to cut exploitative brokers

or intermediaries out of the equation entirely; instead, using WhatsApp, they now enjoy direct relationships with their newfound customers without having to pay bloated fees. A similar story emerged in Uganda: the Goaters' Network established its own cooperative to avoid dealing with brokers.

Meanwhile, projects such as the Rural Economic Growth and Employment Project, backed by the International Fund for Agricultural Development, deliver grants to unbanked, small-scale farmers in Jordan, where international benefit aid is critical for communities to survive and avoid slipping into extreme poverty and food insecurity. During the COVID-19 crisis, the project started to transfer funds electronically so communities can access money without the difficulty of traveling to physical bank branches.

In England, projects such as the Click Connect Learn Fund run by Nesta with support from the Department for Digital, Culture, Media & Sport injected cash into organizations developing volunteer-led e-tutoring for

disadvantaged pupils in rural areas. Though online tutoring cannot and should not replace in-person teaching, the initiative has helped connect highly skilled volunteers with children to help kids boost their skills.

Education drives will take on profound new meaning as successful connectivity initiatives roll out. According to the World Economic Forum, almost half of all employees globally will need to reskill by 2025 because of changes in technology.

Successful initiatives need to be community-driven and community-led. Technologies should be introduced to a set of local people or “digital buddies” who can champion these technologies themselves, explain the benefits to their peers, and demystify or serve as a point of assistance for people in their communities.

Rural populations equate to nearly half the world’s people: 67 percent of

low-income countries and 60 percent of lower-middle-income countries are in rural regions, and 80 percent of those living below the international poverty line inhabit rural areas. According to the U.N., improved connectivity, rather than the traditional trend to urban migration, will truly improve the standards of living in these regions.

### THREE PILLARS FOR A CONNECTED FUTURE

Rural communities’ use of digital technologies remains complex. To deliver socially transformative digital inclusivity, governments must help create ecosystems in which core infrastructure improves quality of life.

There should be three pillars:

- 1 Establish high-speed broadband access and wireless connectivity everywhere.
- 2 Create imaginative, new, rural-use cases with meaningful, scalable

benefits, such as e-tutoring, investing in agritech, and using “send to email” conversations in WhatsApp.

- 3 Humanize technology with a community model of using digital services closely with a set of local digital champions, to help demystify technologies in these communities.

Together, these strategies will enable greater access to markets and finance, education, and health care resources so even more of the world is connected, and can begin to reap the rewards. ❖



*Paul Atkinson is the CEO of optical network business for STL, an industry-leading integrator of digital networks.*

**FIBERDYNE LABS, INC.**  
Your Wave Division  
Multiplexer  
Headquarters!

Get Your  
**FiberPassHD**  
TODAY!  
Call or Click Today!

**144 Ports**  
1U FiberPassHD  
Cassette Chassis

- Passives
- Splitters
- WDM
- MPO
- NG-PON2 5G solutions



**FIBERDYNE LABS, INC.**  
**THOUSANDS OF CUSTOMERS, MILLIONS OF CONNECTIONS**

**30**  
FIBERDYNE LABS  
1992 - 2022

We ship worldwide!

Call or E-mail  
your request for  
quote today!

**FIBERDYNE LABS, INC.**  
Sales@fiberdyne.com ~ (800) 894-9694 ~ www.fiberdyne.com

Fiber-To-The-Home  
**TOP 100**  
Broadband Communities  
Magazine  
2022