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Mar 2 · 4 min read

Narrowing the Digital Divide by Building a Bridge to Broadband

By Zev Kamrat, Customer Experience Manager and Technology Ethicist

I can still remember the sound of dial-up internet. Those scratchy, semi-melodic tones. I'd sit there, listening and waiting, like a guest at a séance, for the marvelous moment of connection to occur.

The revolution of broadband internet in the 1990s did away with all of that. Today, getting online in an instant is something many of us take for

access to a high-speed internet connection.

When an individual does not have access to healthy food in his or her community, they often suffer the health inequities of living in a food desert. Similarly, today's students and workers can be disadvantaged due to living in a connectivity desert.

The term digital divide has come to define the way we see the inequities experienced by those with restricted access to high-speed internet connectivity. In an article published in Forbes, Cheri Beranek states "High-speed broadband can have a profound economic impact, but so can an absence of it, particularly in underserved communities. In 2021, Pew survey data found about 40% of American adults making less than $30,000 a year had no access to such service".

Unless more is done for underserved communities suffering in connectivity deserts, this gap will most likely continue to grow. It seems the future of work increasingly dovetails with being able to work remotely in an efficient, hyperconnected manner. And the future of work in the United States starts in our schools.

In a podcast called "Bridging the Digital Divide," Mayra Delgado, a Texas biology teacher, explains the ways in which her group, called What the Fiber, is trying to make a difference. Delgado said that when she started her advocacy work, over 90 percent of her students did not have access to high-speed internet at home. Brownsville, Texas, where Delgado teaches, has a reputation of being the least connected town in the entire United States of America.

virtual classes because they simply could not get online. Delgado ultimately met Rene Gonzalez who is the founder of Lit Communities. Gonzalez helped her get an approval of 20 million dollars to build 95 miles of new fiber throughout the city of Brownsville.

While Delgado's story has a pleasant outcome, one might point out that building internet backbone is certainly not the typical job of a biology teacher! Yet public-private partnerships, both formal and informal, may be key to bridging the digital divide throughout the US.

In Cities-Today.com, Sarah Wray describes an interesting public-private partnership. "The Household Internet Access Initiative (HIAI), in partnership with **Helium** and the **California Emerging Technology Fund** (CETF), is based on residents hosting hotspot nodes on a decentralized Internet of Things (IoT) network. These mine cryptocurrency that will be used to subsidies internet costs."

The program aims to cover the expenses of low-cost internet plans for over 1,300 low-income households in San José, California for a year through a one-time US $120 payment.

Helium is a San Francisco based company that utilizes an IOT framework in their approach to network connectivity. Alexander S. Gillis technical editor for TechTarget provides this definition: "The internet of things, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction."

Users are rewarded by Helium just for being a part of their network by enabling them to mine a cryptocurrency dubbed $HNT. Kevin Rose of New York Times writes: "These tokens can be bought and sold on the open market like any other cryptocurrency, and the more a hot spot is used, the more $HNT tokens it generates." Companies like Helium that utilize open-source technology, blockchain, and a decentralized approach have already begun to lead the way towards providing underprivileged populations with access to high-speed internet along with other technological resources.

It is inevitable that the future of work is going to be rooted in technology. Knowing that, it would seem prudent for more of today's movers and shakers in the tech space to do something to address the digital divide. Pew Center Research contributor Emily A. Vogel writes "Roughly a quarter of adults with household incomes below $30,000 a year (24%) say they don't own a smartphone. About four-in-ten adults with lower incomes do not have home broadband services (43%) or a desktop or laptop computer (41%)."

Today's tech leaders have a profound opportunity to extend a willing hand to advocates like Maya Delgado. It is beyond time to free our neighbors from those antiquated dial-up buzzes (according to the last census data, 265,331 households still use dial-up to connect to the internet). If those of us in the technology space are committed to a more connected, communicative, and equitable world, then we should build a bridge to broadband for everyone, putting an end to connectivity deserts and the monotonous flurry of dial up tones .