

Broadband 'disconnect' has big consequences for midwest farmers

October 9 2018, by Whitelaw Reid



Christopher Ali's dog, "Tuna," rode shotgun on Ali's summer road trip to visit farms in the Midwest. Credit: University of Virginia

Sitting in the cab of a combine harvester on a soybean farm in Wells, Minnesota this summer, University of Virginia assistant media studies

professor Christopher Ali was amazed as he looked down at the dashboard.

Using GPS, the harvester could, in real time, map, monitor and record massive amounts of data – such as crop yield and soil moisture levels – which would let a farmer know exactly which rows required attention.

"It was the coolest thing," Ali said. "The capabilities were just incredible."

Unfortunately, the vast majority of farmers in the Midwest aren't able to utilize this "precision agriculture" technology because they don't get high-speed internet, according to Ali. He said companies don't want to put in [fiber optic cable](#) – considered the gold standard – because of its great expense.

"There's not enough customers on a farm, because there's technically one customer on the farm – the farmer," he said. "That doesn't merit any of these companies coming out. The per-mile cost of laying the wires is the problem."

Ali said the U.S. offers \$6 billion in subsidies to telecommunications companies for the purpose of installing rural broadband, but the funds aren't making their way out to the farms.

"We're giving CenturyLink \$500 million a year for the next six years, and CenturyLink has announced that they're not going to upgrade their network," Ali said. "They'll roll out what they have, which is copper wire, but they won't upgrade to fiber and that stinks."



Ali said universal broadband could help farmers take advantage of “precision agriculture” technology and increase their efficiency by upward of 10 percent. Credit: University of Virginia

To try to get to the bottom of the public policy issue that he believes has far-reaching consequences, Ali and his dog, Tuna, loaded up "Lima Bean" – Ali's bright green Kia Soul – and drove to small farm towns in Kentucky, Iowa, Minnesota, Missouri and Indiana. In all, they traveled more than 3,000 miles in the course of a month.

Ali, a native of Winnipeg, Manitoba, wanted to talk face-to-face with the stakeholders – farmers, residents, businesses and broadband providers.

"My question was, 'Why isn't public policy doing its job and getting the

internet to what we call these broadband deserts?" Ali said. "The goal of public policy is to help the public, so there's a disconnect between what I learned on the ground and what I've been reading about what everyone expects these policies to do."

After Ali's trip ended in mid-August, he came to a number of conclusions that will be the basis for an upcoming book, "Farm Fresh Spectrum."

- "We have zero coordination at the federal level," Ali said. "We have a lot of different agencies, with a ton of money at their disposal, that are oftentimes colliding because they don't talk to each other."
- "There's also not a huge recognition of who all the stakeholders are in this," Ali said. "We oftentimes talk for rural people without talking to rural people. We think we know what's in the best interests of rural America, versus actually spending some time on the ground to learn what these people need and what these organizations are doing."
- "Co-ops are the unsung heroes of [rural broadband](#)," Ali said. "They don't need the return on investment that the giant companies need because they don't have shareholders to satisfy. They have community members to service. And I think because they don't need a 20 percent profit margin, they're able to take a few more risks. Wouldn't it be great if [public policy](#) could help these co-ops leverage or mitigate some of the risk?"
- "The other thing is the role that broadband is going to play in contemporary farming," Ali said. "We're at a point right now where if we had nationwide 4G coverage – despite what your cellphone provider says, we don't – we could get to the point where a tractor is talking to another tractor that is perfectly aligning their planting and fertilizing. We could do things like real-time soil analysis to know where more fertilizer or water

needs to go in which area. Right now, we have this technology, but oftentimes a grower has to take their USB key out and walk or drive to their house, where hopefully they have [high-speed internet](#) – because if they don't, they have to drive to the nearest town where they can upload all of that data. Imagine if we could do all this in [real time](#)?"

Ali said the farmers he talked with – most of whom were lucky if they could get 2G service – said they would be able to increase their efficiency upward of 10 percent.

"If you think about it, we're going to need to feed 100 million more people in the next 60 years. That means we're going to have to double our food supply. And by we, I mean farmers," Ali said.

"How do we do this? We're out of land. So we need to have more efficient farming practices, and communications technologies can help us do that. But none of it is possible without universal broadband – and that's something policymakers haven't figured out yet."

Provided by University of Virginia

Citation: Broadband 'disconnect' has big consequences for midwest farmers (2018, October 9) retrieved 20 June 2024 from <https://phys.org/news/2018-10-broadband-disconnect-big-consequences-midwest.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.