

Bruce Buffalo

An interview with Bruce Buffalo, founder of Mamawapowin in Maskwacis, Alberta

Bruce Buffalo lives in a small, Indigenous community in Maskwacis, Alberta, Canada where, until recently, there was no WiFi. Bruce knew that without Internet connectivity, he and his neighbors would be cut off from vital educational, employment, and health resources online. So, he decided to take matters into his own hands and created Mamawapowin, a free WiFi network.

Bruce fundraised and self-funded equipment and service and set up hot spots throughout the community. He turned the WiFi on and gave everyone access at no cost. With a great deal of determination and the help of a widely-viewed video from Al Jazeera, external partners stepped in to provide support and Bruce's network is quickly growing.

With new partnerships, additional access points, and faster speeds, Bruce is attempting to connect all of Maskwacis, starting with the Samson First Nation.

Katie Watson of the Internet Society spoke with Bruce recently about how the project started, and what's coming next:

Katie Watson (KW): Hey Bruce, how are things going?

Bruce Buffalo (BB): Things are going really well. The network is really expanding. We just entered into a partnership with the Maskwacis Cultural College, which has allowed us to move off the residential system that we started with and migrate on to their fibre system.

KW: How did that partnership form?

BB: In the spring, David Brown, the Dean of Indigenous Business at Maskwacis Cultural College, saw Al Jazeera's documentary about me and reached out. He realized that what I was doing, bringing connectivity to the community, really syn-



Photo Credit: Sherré Côté

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ergized with the College's efforts to improve the community and offered to help. Now, the college is allowing me to run my system through their fibre and they've even taken on some of the costs of service.

We're talking about how this partnership could benefit both the community and the College's students too. We'd like to run an incubator together through Mamawapowin that would allow Maskwacis Cultural College students in their third or fourth year of business school to get internships and technical experience through the company. We really see it as a win-win.

We're also working with Accelerate Okanagan on a partnership. We'd like them to come and provide training for community members too.

KW: Things sound like they're going really well! Can you tell me how the project began?

BB: Everything started about six or seven years ago when I moved back to the [Maskwacis] reserve. I've always lived in a big city, so I understand what the Internet can provide for a city or town. When I moved back to Maskwacis there was absolutely no infrastructure. A couple of people had landlines here and there, and a lot of people had cell phones, but there was no WiFi connectivity for the town at all.

If you really needed Internet access, you would have to go to the home of one of the few people that had it and see if you could get on. And of the few people who had Internet access, most of them didn't have Wifi, so it wasn't like they could just give out the password. Not having access to the Internet was a really big concern for the community. I knew - and they knew - they could really benefit from the services and resources available online.

KW: Were any other Internet service providers (ISPs) available in the area, or willing to come deploy a network there?

BB: No, they weren't. I did some research and found that even though larger communities nearby could get Internet access, we couldn't. I called some ISPs and told them our situation and asked if they would come service my community. I was told that they don't put infrastructure on First Nation Reserves. They told me, essentially, that they didn't put infrastructure in communities that they didn't think could pay their bills. I was in disbelief; it was so upsetting to hear that.

KW: What did you do next?

BB: I decided that if the ISPs wouldn't build the infrastructure, I would do it myself.

There was a big learning curve at the beginning because I don't have a background in networks or WiFi. I was a carpenter before, but I've always been really interested in technology. I was always poking around computers, routers, electronics. So I started messing around with WiFi networks at home too.

I created a wireless distribution system (WDS) on two routers at my house and thought, 'Well, if I can do this at home I can probably do it on a larger scale too.' Samson (one of the four First Nations that make up Mascwasis) is a really dense community, so even a small WiFi network could easily hook up a lot of families at once.

KW: How did you fund the network?

BB: To connect Samson, I started a GoFundMe and raised \$1500. I used that money to buy two access points, a switch, and the service. That service ran until I ran out of money. It was a really hard time. I was just out on roofs, building and maintaining the service on my own without any support. But I didn't want to stop.

So, I started another GoFundMe, and this time I raised \$7000. I bought more access points and upgraded my antennas, hardware, ladders, and all the other equipment I needed to make the network work. I paid for the service for a full year, up front, so that there would be continuous service without me having to worry about how I was going to pay each month. That second GoFundMe saved the network.

KW: How many people were you able to connect with each GoFundMe?

BB: After the first GoFundMe, I bought two access points and was able to reach about 20-30 people. The second GoFundMe was enough to buy four

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or five access points and an uplink scenario. With that, I connected about 100-150 people.

KW: How many people are you hoping to connect?

BB: Samson has over 7,000 community members and most households have about 10-12 people spanning three generations in each. It's the biggest community in Maskwacis, which is why I chose to start the project there. One access point can cover 600ft in all directions, so we can service a lot of people at one time without too much infrastructure.

I'd really like to be able to connect the entire Samson First Nation town site and expand out from there to the rest of Maskwacis. Especially because I'm not actually a beneficiary of the network. I'm not even in that community. I live one reserve over, in the country, so all this time I've been implementing this Internet infrastructure for Samson I haven't benefitted at all. My hope is that once I can build a tower in Samson I'll be able to connect to my system, and so will some people in my community.

KW: What do you need to make that happen?

BB: Since the GoFundMe's I've gotten more support and I've been able to buy 11 access points, which service about 200-300 people at any given time. And the network is still growing, but I need more resources. I need to upgrade the core network and build a tower before fall this year. If it doesn't happen then, it will get too cold and the ground will be too hard to build. It's a really hard job.

KW: What are some things you hope people will use this network for?

BB: We're planning to put a community hub on the service soon so that when users access the network they'll easily be able to see and access any of the community's services – educational resources, emergency and mental health services, or anything else that could improve quality of life.

Also, as part of our partnership with the Maskwacis Cultural College, they want to offer distance education to students over the Mamawapowin network, which would be really great.

For us, it's not just about connecting to the Internet – it's about the quality of life the Internet can bring to community members who couldn't normally access or afford it. Our network is going to give them a hand up so they can help themselves improve their lives. Putting a fibre system down in a community that had no connectivity options before gives everyone the opportunity to advance by leaps and bounds.

KW: Have there been any challenges?

BB: Getting the word out and letting the community know that these services are available is difficult. It can also be challenging for some people to access the network because they don't have devices – which are also really expensive. So, I'd like to be able to get some community computers too.

KW: So, what's next?

BB: We're going to grow our partnerships and look at new sources of support, and hopefully the tower will go up soon so we can start servicing more communities.

And the network is a fully fibre network now. We do 80 Mbps symmetrical, so it's quite an improvement from anything that's available in the community. It's faster than anything you can purchase via a residential package currently, and we're proud to be the fastest service in town.

But I want to make it even faster, even better. I'm looking at increasing the speed to a minimum of 100 Mbps symmetrical. It's \$1900/month and I'll split costs with the College, which will be a huge help.

It's going to take a bit of time to get all of this done, but I know we'll get there. ☺

If you want to know more about Bruce and Mamawapowin, be sure to check out their website (Mamawapowin.org) and Facebook group for updates.



Leroy Buffalo, David Garrett, Bruce Buffalo, and Tushar Sharma (from left to right).