

GLOBAL INFORMATION SOCIETY WATCH 2018

Community Networks



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This edition of GISWatch came into being alongside a brand new baby boy. Welcome to the world, Ronan Diga!

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NAMIBIA

THE SEED OF A COMMUNITY NETWORK



Internet Society (ISOC)

Quantillian Louw in conversation with Jane Coffin and Colin Muller
<https://www.isoc.org>

Introduction

How is a community network born? In many cases, through someone who experiences the limitations of living in a remote area, and at the same time realises the potential that the community could experience if only it could have a better connection to the net. That is, a community network needs a champion.

This report is the story of such a champion: someone who is trying to bring change, even if it is a small change, to his community. He is doing this recognising that small change can lead to bigger change and to complete transformations of the lives of the community.

This is the story of Quantillian Louw and his project that is the seed of a community network in Namibia. It is based on an interview conducted with Quantillian by the Internet Society's Jane Coffin and an ISOC intern, Colin Muller.

How it began

Getting kids through school...

In 2015, while Quantillian was finishing his studies at university, he met a professor, Nic Bidwell,¹ who taught him about wireless networks that were being set up across the globe. He read about a project in Zambia called Macha Works,² a community network that started with a very small link to the internet. The impact that that link had on the community is what convinced him to take on a research project on the theme. After the research was finished in 2016, he wondered how he could turn theory into reality, to assist his community.

That is how the project started, in a village called Groot Aub located about 60 kilometres south of Windhoek, where 6,000 people live. According to Quantillian:

In this village you have a lot of elderly people looking after their many, many grandchildren that are going to school. Where are they going to get the money to buy internet data to do the school work? Because they are depending on their grandparents and the little their parents send them. And you have some of the parents here as well, but they are unemployed and do not have incomes. They are trying to get their children through school, to at least go to high school, because here we only have to go to grade 10. So they are trying to get them to go to grade 11 and 12 and finish, and at least try and get a job and let's say "rescue" the rest of the family. But if you do not have the means, and there is no one helping you, then what you are trying to do to help your child is difficult.

There are two mobile networks accessible from town, a 3G network from Telecom Namibia and a 4G network from MTC. But access speeds are not fast: 2 Mbps or 2.5 Mbps in 4G. According to Quantillian, data access can cost from one Namibian "dollar something" per megabyte, to about two dollars per megabyte:

But for us that is a bit heavy. It all comes down to affordability. People do not feel included if they do not have the money or the means to access a network because they know that other people access it. The price for data is expensive, especially in Groot Aub.

Other than the mobile networks, there was no other way to access the internet in the village. While the schools ran a "one laptop per child" project, they were closed after hours when the kids actually had time to use the computers. Quantillian also noticed that some of the school kids had got hold of one school's Wi-Fi password and were squatting around the school yard at night or in the afternoons connecting through their mobile devices. He saw the possibilities: he wanted to help grade 10 learners pass their exams by providing them with the necessary online resources, because there is no library in the town:

Many of the kids leave the school at 12 or 1 p.m. and they are not allowed back in to go use the

1 Author of the thematic report "Community networks: Stories and power" in this edition of GISWatch.

2 See the Zambia country report in this edition of GISWatch.

labs and the internet connection – because there is no teacher willing to go sit there with them and monitor them. There is the one laptop per child project, so they have those laptops and internet connection, but what I see most here is the teachers in the school houses using the connection after hours, rather than the children being allowed to access the internet on the school premises and make use of the laptops.

From the start, Quantillian was searching for ways to get the students online. He couldn't provide internet access, so he provided a service to download files for them upon their request:

It feels really bad when you walk in the street and you see the person you were in class with; they are a bum now, they did not make it. And you wonder what was the difference between you and them. And I saw that my mother was a teacher and I was lucky to have that. She could afford to get me the necessary resources I needed and what I needed to pass. And you can see that that might be the reason why the other person did not make it, because they did not have that. So it is kind of like a mission, trying to provide those who don't have, to provide them the chance to get out.

...and helping startups

A second objective, besides helping students, was to try and get small local entrepreneurs information about businesses that they wanted to start up. For example, if somebody wants to start a car repair business, they might need information on specific engines, which Quantillian tries to provide to them by searching online.

Quantillian is also working with a very active community member who has a lot of fresh ideas to contribute to the project. However, his work can get lonely sometimes. The project team is made up of Quantillian, Nic Bidwell as an advisor, and sometimes there are others who are willing to help sustain it:

They just simply help out when they can, then they move on when they have the opportunity to make money or get a job or anything like that. So my position is basically just, how do I put it? The only one; yeah, a start-up.

Building for the future

There is a big demand

Currently Quantillian is searching for ways to share his internet access more broadly, though the connection he has does not have good bandwidth right

now. He also feels limited, sometimes finding it difficult to get community members everything they ask for.

Because of this he wants to turn this project into a mesh network, which implies getting people involved and installing devices at their houses. "This will make the network robust," he explains. "When one device goes down, you have the other one moving around it."

Quantillian thinks the network has to be reliable, and to be available when people need it. It also needs to be convenient, covering as large an area as possible:

There is a big demand. I have noticed that among the youth, the first thing – or these days, the basic necessity to them – is a smartphone. They want to be able to go online and use Facebook and Instagram and all of that. It is funny that for most of them, the next step after the mobile phone is a laptop or a desktop computer. But what I have seen with most of the kids surrounding me is that they are able to access the internet from their houses. They actually use their mobile phones.

He thinks inclusion is what will drive the adoption and growth of the network. If more people benefit from it, more people will want to keep it up and running, and more people will be interested in keeping it growing.

Funding and sustaining a free network

The main challenge at the moment is funding – all of the devices he has are ones he has saved up for. He also taught himself how to install and manage them. He feels this is just the beginning of a shared network, and hopes to find enough funding to be able to install point-to-point connections in key areas of the village:

So you have point-to-point connections from the different locations, and at each location that is where you can now provide mesh from the main node that you have for that location, then just mesh in that entire area. But then once the main node fails, the mesh for that area is disconnected from the server and the rest of the locations.

Quantillian would like to start a formal organisation to manage the network:

If funding was available to pay for a connection, for let's say a certain amount of time into the future, and I knew that there was no need to pay that, and I knew that there were backup devices available, I wouldn't mind giving my

time, on weekends, to keep the network up and all of that, because that is what I want to do now, and I am already giving my own money from my side, my own internet connection, and I am sharing it. If an organisation were to start it would have to be non-profit, because I don't see me saying that providers are charging and it is too expensive for people to afford it and then yet I come still charging. It is not like the money is coming to me, it could still come back to the organisation. But the whole point is having an organisation to help self-sustain the network. So let's say it is non-profit, so you just have people contribute; I don't know in what way, but that is still something to work out.

He wants to provide the connection freely, and at the same time think of ways for it to generate income:

Once it has all the devices and it is a fully running network and you have people in the community working on it, and you have educated them on how to maintain the network and possibly grow the network, you also have to find some way of funding all of that without having people pay for access to the internet. I still have to look at other examples of how people did it. How community networks sustain the network without having to get extra funding just to do that.

I want to look at other models, at how people sustain this over a long period of time without charging. I know that that is not a good thing in terms of sustainability, but I am sure there is some way. Someone has done it before, and they have managed to keep the network up without people having to pay for it. I want to learn what other community networks are doing.

We are also talking about starting an NGO to just make sure that funds don't get misused and that no one person has power over funds or to make all the decisions, because let's say I get to make all the decisions, and I think I am making the right decision but it is not the right one in the eyes of others, and it is not benefiting others. You don't want that. You want it in a way to be a mixed group of people from different parts of the village. For the mesh network to work we need to have devices in certain houses in each of the different locations in the village. So you need to have one person from that location that you can use to reach people in that area interested in participating in the project, and all of that.

Getting the community involved

Another challenge is how to make the community get involved:

So in terms of social challenges, try to get people involved who are like-minded; you should always remember that. Get people in who want to do the same thing. Don't get people in who you believe have good contacts, because that doesn't work at the end of the day.

Quantillian is exploring several ways to involve community members:

The way I would put it, is that it is to your own benefit. If I feel like a person cannot see that it is for their own benefit, then I cannot work with that person, because they are not trying to benefit the entire community now, they are just looking out for themselves. Because if someone comes to tell you, "I have something here, it is not going to directly benefit you immediately, but it is for the greater good, it is here to benefit everyone around you, and in so doing also benefit you in a way," it is in that sense that you are supposed to grab that with both hands and go with it. Those are the kind of people I look for, because if I go to you and explain it to you one time, and you feel like you are not part of it, then we just go on and explain it to the next person until you find like-minded individuals who actually want to do something for the community and develop it. That is why you need to find that one person in the location that is like-minded and willing to do it for the people around him. When you have that person, he is now more able to tell you which people in that area are more willing to also do that.

Show the benefit and grow it from there

Quantillian was given advice to go out into the community, informing them and teaching them how to use Wi-Fi and convince them to support the cause, but he is wondering if this is the right approach. The community has been disillusioned by many failed projects that did not bring them real benefits, he explained, adding:

In Groot Aub it is not going to work like that. What you have to do is put it up, set the network up, have it running, get the people to tell you what content they want. Then show them how to use it. And show them that it is actually benefiting them. Tell them that if they use their mobile devices they can access these resources

and can even go in and request more if they need something else. Because what happens is that arguments will calm down. If you approach them in the beginning they will want to know how they are going to benefit monetarily, what money they can get out of it. If you are in charge, what are you getting for doing it. That's how it is, sort of a mentality problem. That is the mentality here. So in my opinion, I believe you set it up, you have it running, and then you show the benefit of it and then grow it from there.

He plans to start a train-the-trainer project where community members can train other community members:

Once you step away, you give it over to the community completely, and everyone is trained and they can continue training each other. You can always be there to help in emergencies or when it is really needed, but the plan is for it to be owned and run by the community itself.

The will to fight

Quentillian has been attending regional meetings, such as the Third Summit on Community Networks in Africa³ in the Eastern Cape in September, to meet others that are setting up similar projects. He concludes:

It makes it feel a bit small compared to the others that I have seen. But meeting other people doing the same thing gives you sort of like something to look forward to. It kind of tells you that there is help out there. If you need help there are people you can ask. So it helps you. It makes you feel like you are small, but it kind of gives you the will to fight. Like you want to become like those networks.

³ <https://www.internetsociety.org/events/summit-community-networks-africa/2018>

Community Networks

THE 43 COUNTRY REPORTS included in this year's Global Information Society Watch (GISWatch) capture the different experiences and approaches in setting up community networks across the globe. They show that key ideas, such as participatory governance systems, community ownership and skills transfer, as well as the "do-it-yourself" spirit that drives community networks in many different contexts, are characteristics that lend them a shared purpose and approach.

The country reports are framed by eight thematic reports that deal with critical issues such as the regulatory framework necessary to support community networks, sustainability, local content, feminist infrastructure and community networks, and the importance of being aware of "community stories" and the power structures embedded in those stories.

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2018 Report

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