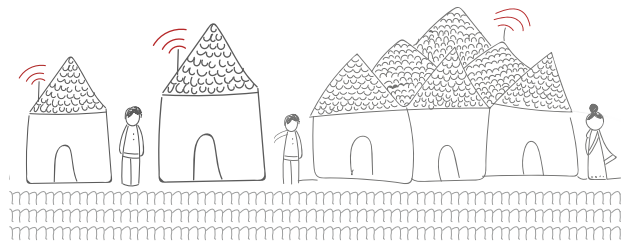




**Meaningful Access
with
Community Networks**

www.cnxapac.org





CNX 2020 Report: Meaningful Access with Community Networks

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CNXAPAC 2020

INTRODUCTION

Since 2017, Community Network Exchange (CNX) Asia-Pacific has been a platform to discuss the many intricacies of community networks, and the multi-pronged issues that emerge with its deployment and management. CNX 2017, 2018 and 2019 were convened with members of the community in person across different locations each year, with a focus on sharing experiences, ideas and knowledge.

CNX 2020 took place in a new reality because of the COVID-19 pandemic, the effects of which were felt locally, nationally and globally. While individuals across the world isolated, they also found themselves more connected than ever before, because of technology. The necessity and dependence on technology has never been more evident, and the serious gaps in connectivity never more glaring.

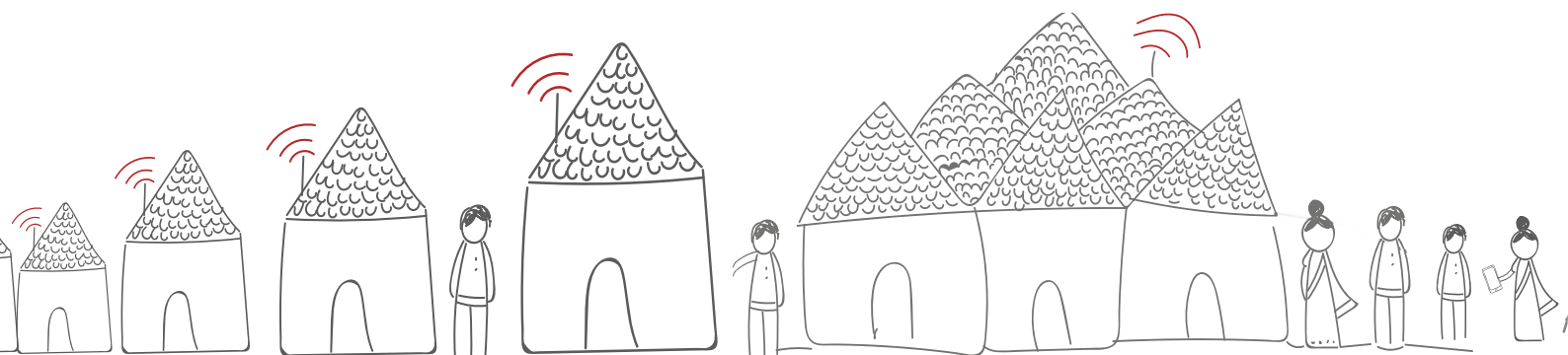
Across developing countries, only 19% of people are connected to the Internet, compared to 87% in developed countries. Under the shadow of the global pandemic, perhaps the question to ask is how best to ensure connectivity for all, and should it be considered a basic right? What sort of enabling regulatory and policy environment is required for the mass adoption of community networks?

How do we ensure the newly connected are capable digital citizens and are able to maximise the digital opportunities on offer? With this in mind, the theme of CNX 2020 was "Meaningful Access with Community Networks".

In this new set of circumstances and faced with unique questions, CNX 2020 found itself shift to an online medium, with conversations taking place over six days, with over 40 speakers participants from 23 countries, joining in for the sessions of the conference. The ten sessions and the concluding Summit Roundtable, explored multiple nuances around the meaning of connectivity and the role of community networks across different contexts and countries, in our contemporary times.

The discussions covered a range of topics involving multiple stakeholders, from Internet Service Providers, civil society, government and licensing bodies to international organisations, and the individual beneficiaries of community networks. They explored the importance of understanding local context and cultures and respecting the 'human' element that forms the backbone of technology and connectivity use and, importantly, the need to gain the trust of local communities.

The session on gender discussed its many dimensions in depth, but most sessions also found themselves touching upon the intersection of gender and technology, and how it impacts the deployment as well as the use of community networks. A session explored the paradoxes around connectivity, which on one hand acts as a platform to liberate people and open up the world to them, and on the other, can transform into a tool for authoritarianism, propaganda, and misinformation. The conference also discussed the questions around content and the need to have local contexts in mind when it comes to content. The role of community radio was highlighted along with the challenges in its deployment which include technological barriers as well as those pertaining to license and regulations and the synergies shared with community networks.



The Summit Roundtable concluded the conference, with a panel of experts delving into issues which highlighted the need to connect people. With lockdowns, social distancing, and communities isolating across the world, the necessity of the Internet and for meaningful connectivity has never been more urgent. A small window of opportunity has emerged with the pandemic and the critical role the Internet has played during it. All stakeholders should capitalise on this opportunity to connect the unconnected across the globe.

Format of CNX 2020

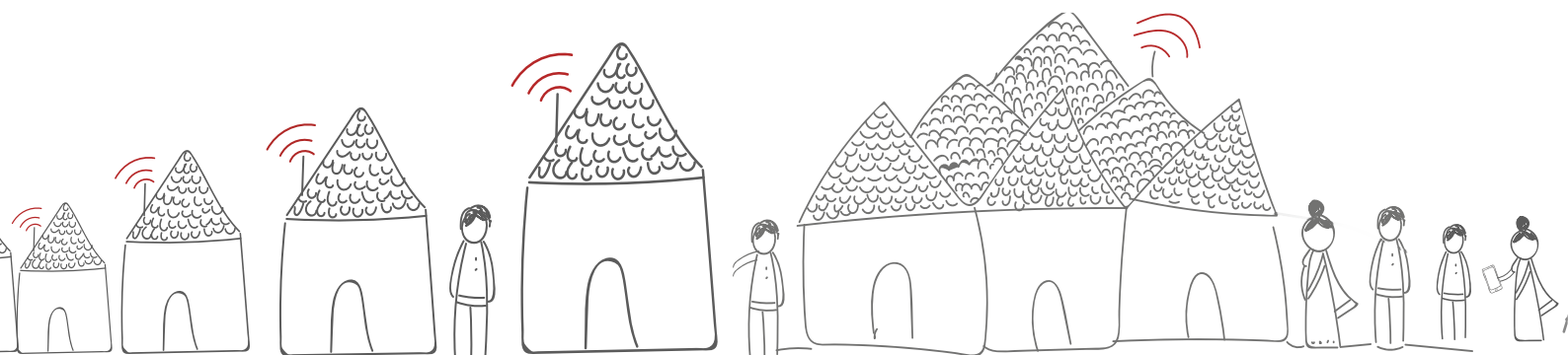
CNX 2020 was designed as a place to meet, exchange knowledge, share ideas, inspire others, and of course, to be inspired ourselves.

In its fourth year, CNX 2020 was held online from 20th November to 4th December 2020. To ensure maximum engagement without the fatigue that comes with lengthy and day-long online sessions, each day of the conference had two focused sessions, running for a total of 150 minutes. The sessions were held using Zoom and broadcasted live on diverse online platforms.

A segment on "Voices from the Community" showcased short videos from different regions where community networks are deployed. These videos highlighted the impact stories, experiences, and local contexts that should be considered in the deployment of community networks.

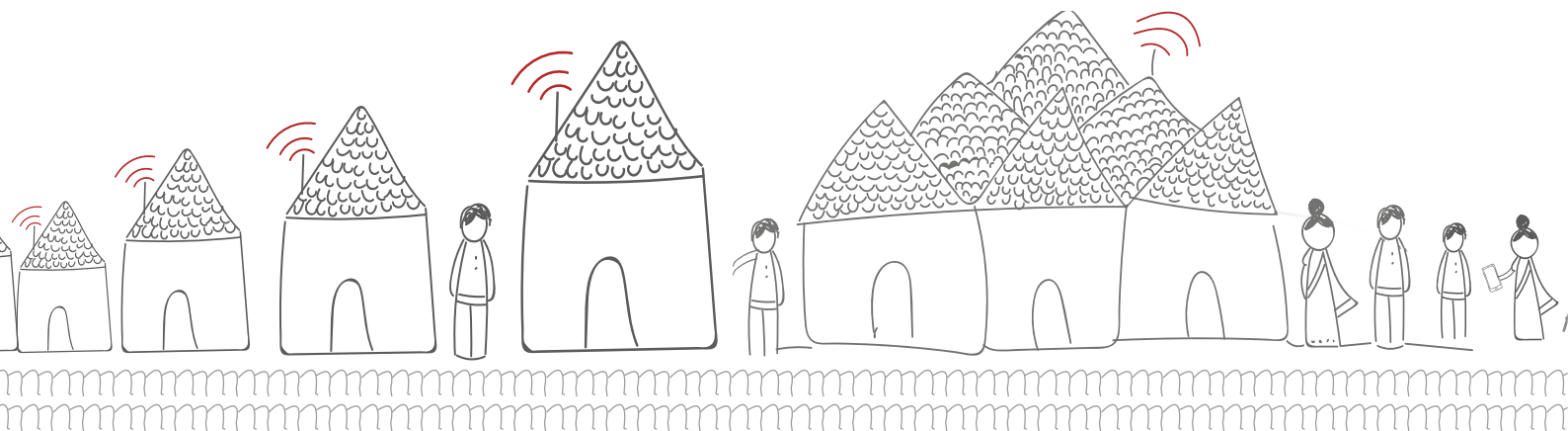
To maintain participant's interest and engagement, each session of each day of the conference had three components:

- A moderated roundtable discussion for 25 minutes, with 3 speakers.
- A 15 min segment called "Voices from the Community" which included several short videos from community networks around the region.
- A curated free-flowing open mic session to cater for questions and answers on the session topic.



DATES AND THEMATIC TOPIC OF CNX 2020

DATE	TOPIC	THEME
20 Nov 2020	TOPIC 1	Community Network Models & Best Practices
	TOPIC 2	Access during the pandemic: Saving Democracy, Citizenship & Education
23 Nov 2020	TOPIC 3	Policy & Regulation for Mass Adoption of Community Networks
	TOPIC 4	Community Networks as a Model to fight Misinformation & Fakenews
26 Nov 2020	TOPIC 5	Gender Sensitive Community Networking
	TOPIC 6	Content, Context and Community for Community Networks
30 Nov 2020	TOPIC 7	Community Radio & Broadcasting with Community Networks
	TOPIC 8	Training & Cadre Development for Community Networks
02 Dec 2020	TOPIC 9	Partnerships & Collaborations for Community Networks
	TOPIC 10	Connecting Indigenous Communities
04 Dec 2020		Summit Roundtable



COMMUNITY NETWORK EXCHANGE SESSION SUMMARIES

Day 1: 20th November 2020

Session 1: Community Network Models & Best Practices

There are several community network models in practice across the world, and the Asia-Pacific is no different. This session explored the different models and conditions under which community networks operate, along with the technology used. It also highlighted some best practices and learnings.

Session Moderator: Rajnesh Singh (Australia)

Session Speakers: Senthil Kumar M (India), Gustaff Harriman Iskandar (Indonesia), Ritu Srivastava (India), Peter Bloom (Mexico)

Gustaff Harriman Iskandar pointed out the need to explore different models and various approaches to establish local Internet infrastructure that is built and utilised by the local community. Ritu Srivastava expanded on how using diverse technologies, and different permutations and combinations have allowed community network operators to play in different segments. Senthil Kumar explained the work of his organisation within the space of healthcare across rural India. He explained why the big challenge lay in connectivity, and the objectives of the organisation evolved to provide village level connectivity in a public location. Peter Bloom explained why it is important that people are able to support their networks themselves, without relying on injections of cash from outside.

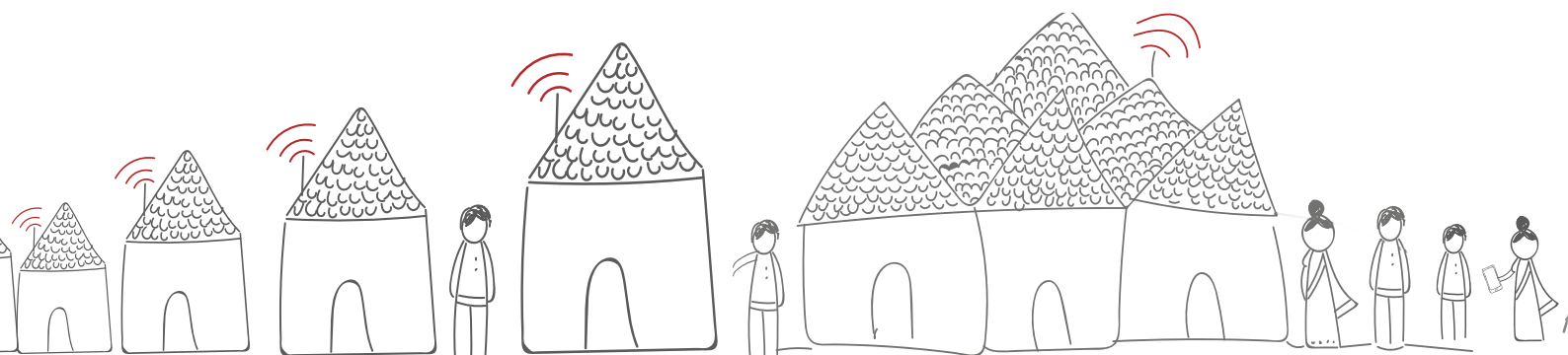
Moderator's Questions



- What are some of the different models under which community networks operate?
- What are some of the technology options for community networks, and what are some of the considerations when making a choice?
- What are some of the best practices and learnings from your experience?

Key points which emerged

- In countries like Indonesia, the significance of the Internet lies in playing a democratic role.
- In countries like India, licensing is a big issue. Even when one gets the license, regulation costs are high. There are many binding regulations alongside.
- Mobile/GSM based technology can be a viable option in rural areas for making a model sustainable.
- Using low-cost routers and devices is crucial for Community Networks, particularly from an affordability and sustainability perspective.





Gustaff Harriman Iskandar: "Outside of the indigenous community, if we want to make a backhaul tower for example, we need to check local regulation, and local legal framework to do that. So, this is like an iteration and prototype -- what we are trying to do, to find a different models and various approach on how we can establish local Internet infrastructure that are built and utilised by the local community."



Ritu Srivastava: "I have seen a bunch of other technologies which are coming around, yes, primarily wireless technology, and unlicensed spectrum, 2.4 and 5 GHz, dominate a particular domain. However, I have also seen GSM based network, TV white space model, and, depending upon the community need, the choice of offline network to the online network, that is also the demand of the community networks as well."

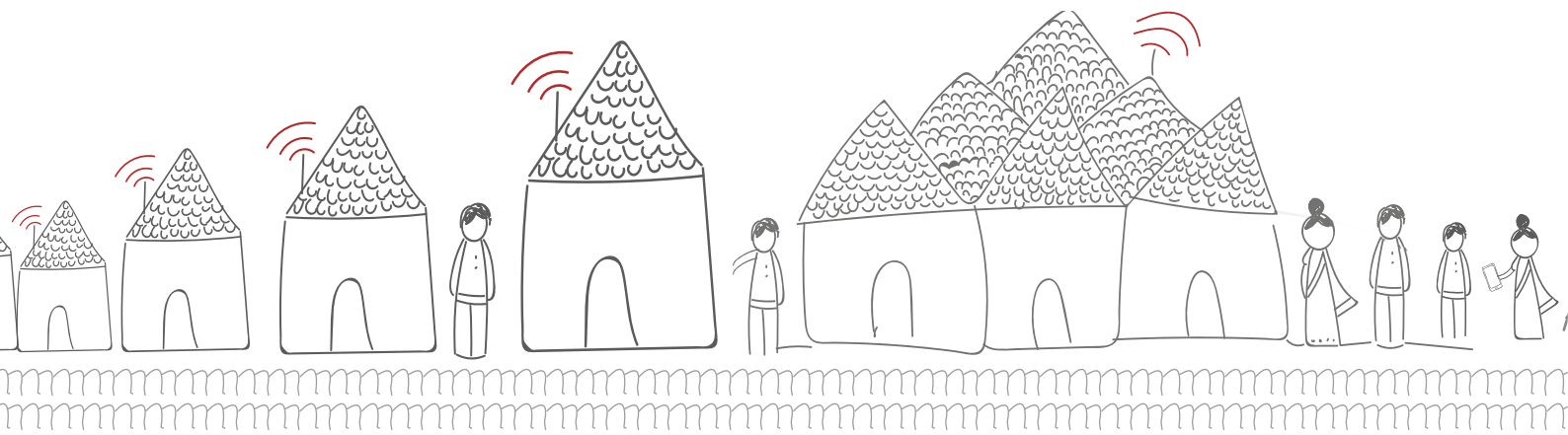


Senthil Kumar: "Initially, when we designed the product, we understand there would not be any connectivity in the region. So, we made the application in an offline mode, like the health worker will go to the pregnant mother, collect all the vitals and symptom on the app, and come to the connected region, (which can be a connected region in the village) and press the sync button in the application. So, it will send the data to the cloud. But with most of the health worker, we never get the data. Once the checkup is done, they switch off the data, they don't press the sync button. So one thing we understand is if we put any responsibility to the health worker (to press some button) they may not be able to do it. So, we need to get the data in real time. Our objective now is, how we can provide a village level connectivity in a public location, so that we can collect this data?"



Peter Bloom: "So, how do you build a network in a place where people don't have money? When there's no money, they can't exchange money for a service. That's why we use something like digital shortwave, because there's no service provider, we're just bouncing the signal off the ionosphere, and it can go 800, 1000, 1500 kilometres, which is amazing, and we don't have to pay anybody to do that. So, for the community, as long as they are able to kind of maintain the equipment, there's not a monthly service that they have to pay to somebody."

Watch the session [here](#)



Day 1: 20th November 2020

Session 2: Access during the pandemic: Saving Democracy, Citizenship & Education

Internet access has become vital and an uncompromisable necessity, during the pandemic due to restrictions on movement and social distancing requirements. However, at the same time, some governments appear to be using this greater dependence on Internet-based applications and services as an opportunity to promote authoritarianism and control. This session discussed the complexities as well as the necessity of open access for citizen rights and sustaining democracy.

Session Moderator: Osama Manzar (India)

Session Speakers: Svetlana Zans (Myanmar), Talant Sultanov (Kyrgyzstan), Ananda Gautam (Nepal)

The session focused on the complexities as well as the necessity of open access for citizen rights and sustaining democracy. Svetlana Zans explained why human rights is equal to digital rights because of the increasing dependency on the digital space. She also spoke about elections in parts of Myanmar where access to information was critical and depended on access to the Internet and media platforms. Talant Sultanov spoke about 'access' from the point of view of democracy as well as from education, the experiences of his country, and underlined the importance of Internet connectivity for both. He also spoke about how in order to expand the scale of community networks and digital democracy, accessibility, sustainability, and usability were necessary requirements. He also emphasised on that fact that equipment and money were not the barriers to connectivity but also going to the regulator and getting the license to be able to use the frequencies, was a difficult and a time-consuming exercise. Ananda Gautam explained the challenges that the pandemic sprung on education, in regions that did not have electricity or access to Internet connectivity. He highlighted initiatives based on wireless connectivity that helped students access basic education.

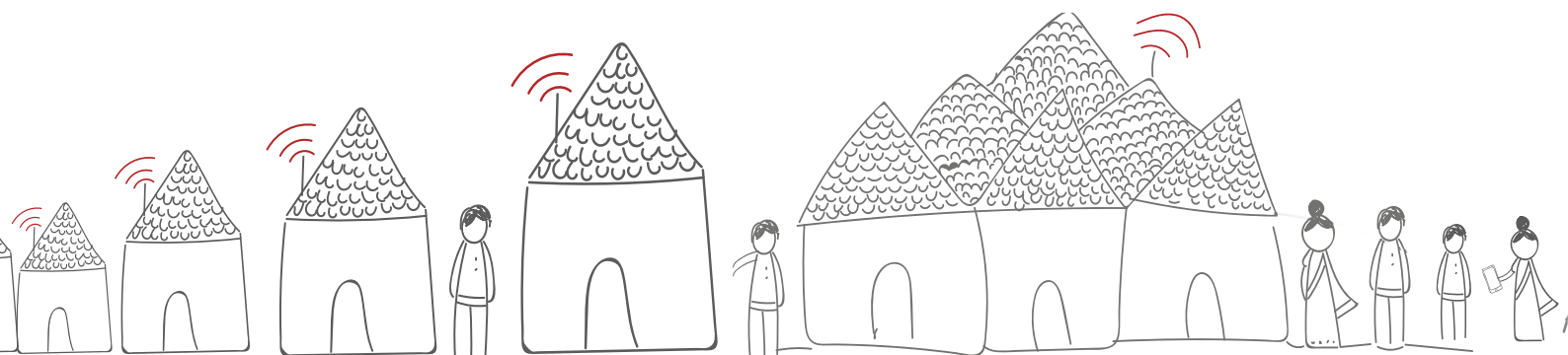
Moderator's Question



- Why has access to Internet technologies played such a critical role through the pandemic?
- Have governments also tried to use this increased dependence on online apps and services as an opportunity to promote authoritarianism and control?
- How is open access to technology shaping citizen rights and the whole notion of democracy itself? Are there any contradictions?

Key points which emerged

- Community networks can be a solution to provide access to education, as well as providing information on Covid preventive measures.
- While implementing online education, one should take into account factors like regional pockets with no Internet, no digital devices, and the difficulty in using technology by teachers and students.
- Much of the focus has been on the student with respect to online access and education during the pandemic. But teachers should not be neglected, and they should be provided training and capacity building as well.



- Having Human Rights is not enough. Digital Rights are equally important.
- Connectivity is necessary for timely dissemination of information with respect to the pandemic.
- There is a need to focus on "responsible connectivity" because we have to connect people but without undermining anyone's human and digital rights.



Svetlana Zans: "We always say human rights, but I would say human rights equals digital rights... we cannot exist just with the Human Rights definition. We should have human rights and digital rights definition where we will have a right to have access to Internet, we have a right to express ourself with freedom of expression, and of course, right to privacy and data protection."

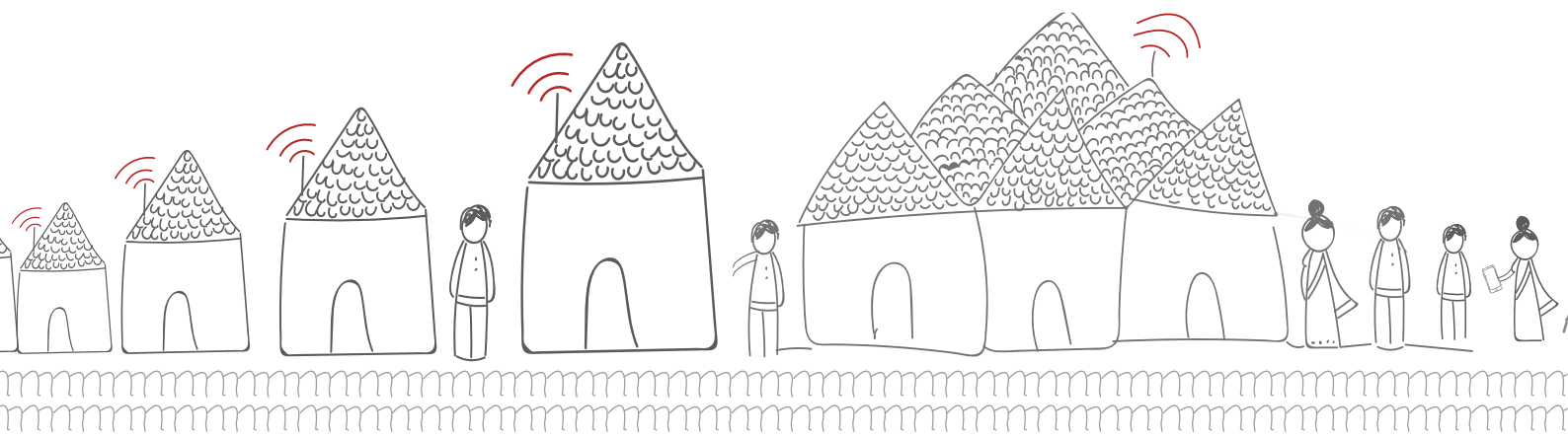


Talant Sultanov: "We had three presidents in the last one month, I think partially because of the pandemic. We had the popular uprising in early October after the parliamentary elections. Exactly on that night, we had a blackout. We got so used to the luxury of having the Internet that you don't think what happens if you don't have connectivity. And that night, you could really understand that"



Ananda Gautam: "During the pandemic, all the schools were shut down, and some of the boarding schools were going online, and students were taking online classes. And at the same time, there were students and the schools in the remote part of Nepal without Internet connection. Internet connection is a bit far away, electricity connection is one of the major challenges in those areas."

Watch the session [here](#)



Day 2: 23rd November 2020

Session 3: Policy & Regulation for Mass Adoption of Community Networks

Even though community networks have successfully been in practice as an alternative method to connect communities to the Internet, they have not become a viable alternative in many countries. This session delved into the kinds of policy, regulatory, advocacy, and design effort required to facilitate greater adoption of community networks and help fast-track access for the unconnected in countries and regions all over the world.

Session Moderator: Sarah Farooqui (India)

Session Speakers: Carlos Rey-Moreno (Spain), Achia Nila (Bangladesh), John Jack (Vanuatu), Teddy Woodhouse (United Kingdom)

Carlos Rey-Moreno delved into the reasons why mass adoption of community networks had not taken place at the needed scale, and also explained the [five elements of policy and regulation](#) that are necessary for an enabling environment. The first is reducing barriers to obtain an operators license. The second is access to spectrum, and spectrum sharing. The third is access to backhaul and backhaul connectivity. The fourth is access to telecom data and transparency around access points, spectrum, etc. The fifth is access to funding, and universal access funding.

Achia Nila explained why it was important to focus on rural areas when talking about community development, where often because of the lack of clarity on the nature and purpose of the Internet, its utility is lost. She also highlighted the unavailability of broadband across villages and understanding the differences in rural and urban contexts in terms of providing Internet services. Teddy Woodhouse expanded on the need to highlight good examples of practice across regions, and on broader policy advocacy, with a focus on low- and middle-income countries.

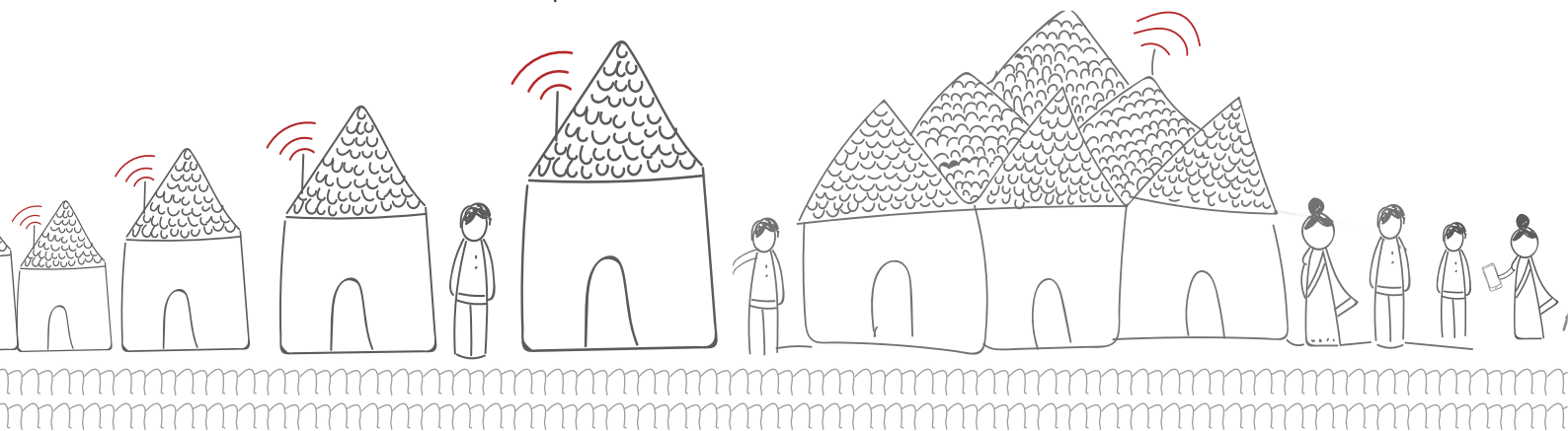
Moderator's Questions



- Even though community networks have successfully been used to connect underserved communities to the Internet, why have they still not become a viable alternative in some countries?
- What are some of the key regulatory barriers to the deployment of community networks and what changes are needed?
- What role can Universal Service Funds play in accelerating the deployment of community networks to underserved communities?

Key points which emerged

- Community networks are playing a vital role in providing affordable Internet to underserved communities across geographies and it is our collective responsibility to lower the barriers related to policy, regulation and beyond.
- Universal Service Funds can support forms of innovation and fund community networks, especially in locations where the provision of access is commercially non-viable.
- Thinking about the demand side, making relevant content and making it available locally is important. The Internet can be and should be relevant to all parts of the world, whether one lives in a rural or urban context.



- It is important to reduce the barriers for obtaining an operator's license along with reducing fees, and bureaucratic and administrative bars. Transparency on the location of the towers, fibre, access points, and where the spectrum is being used, will make it easier to design networks and to create spectrum sharing strategies."



Teddy Woodhouse: "Policy and regulatory reform, have two tactics that are relevant to the discussion that we are having here today. The first one is we find and highlight good examples of practice -- so we find countries that are making some of these changes that make it a bit more welcoming and possible for community networks to operate. And the other part is through broader policy advocacy work, where we encourage policy change or new ways of thinking about Internet service, with a focus on low- and middle-income countries across the globe."

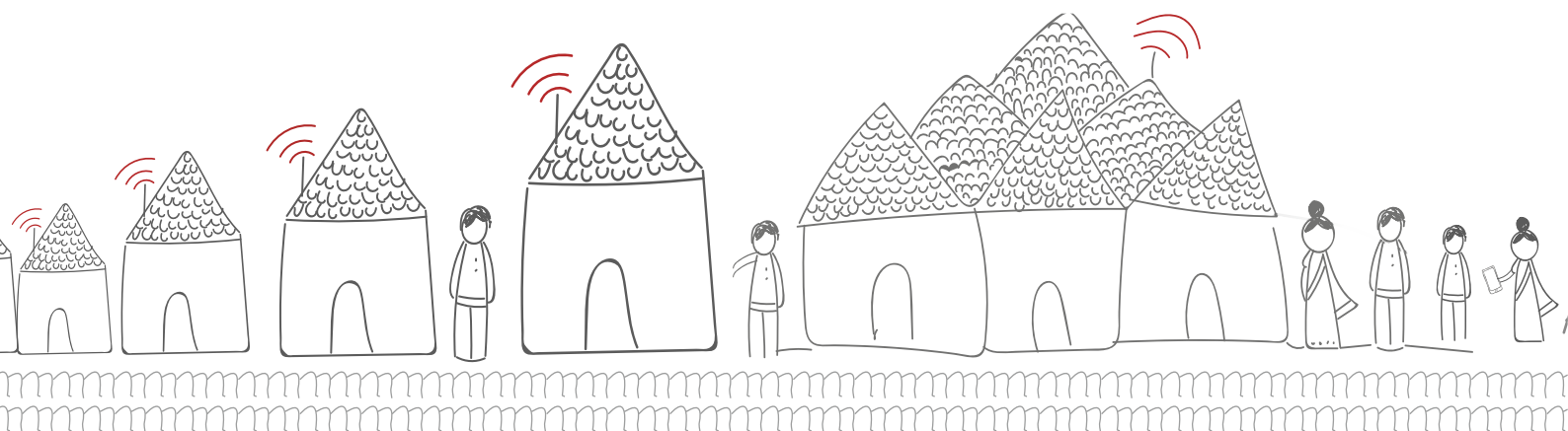


Achia Nila: "If we think of community development, we need to think about our rural areas. In rural Bangladesh, people always think that the Internet means only Facebook. Therefore, we are unable to make it clear to them -- what is the Internet? So, if they are not able to understand the nature of the Internet, it is a challenge to use that Internet and make people benefit from the Internet. And the thing is that across different villages broadband is not available everywhere. So, in the urban area with gateway delivery, it is really an affordable oil but in rural areas it is still really tough to access the Internet."



Carlos Rey Moreno: "The cost of the technologies themselves are being reduced, that the skills to operate, those technologies are being reduced and that more and more people are stepping up or finding the confidence to say, "I can do this right." But we are at the beginning of a call to change that can be promoted by policy and regulation, but it's also a cultural change that will happen."

Watch the session [here](#)



Day 2: 23rd November 2020

Session 4: Community Networks as a Model to fight Misinformation & Fake news

Community networks can be thought of as 'trusted networks' in that the participants are all from the same community and would have an intrinsic element of community trust between them – just about every one knows every one else. This can potentially enable trust-based information sharing, and at the same time help avoid misinformation and fake news. This session discussed how community networks can potentially be leveraged to counter the pandemic of misinformation and fake news.

Session Moderator: Osama Manzar (India)

Session Speakers: Waqas Hassan (Pakistan), Lisa Garcia (Philippines), Heru Tjatur (Indonesia)

Waqas Hassan highlighted the role of different stakeholders -- from governments to online platform providers -- in addressing and fighting misinformation. Lisa Garcia spoke about the significance of accurate and timely information, its role in saving lives especially during a pandemic, and on the limits of traditional sources of information. She highlighted how if left communities and populations vulnerable to misinformation and propaganda. Heru Tjatur spoke about the need to bring digital literacy into the community. He also expanded on working with different stakeholders, including governments to educate people and teach them how to verify, and check information.

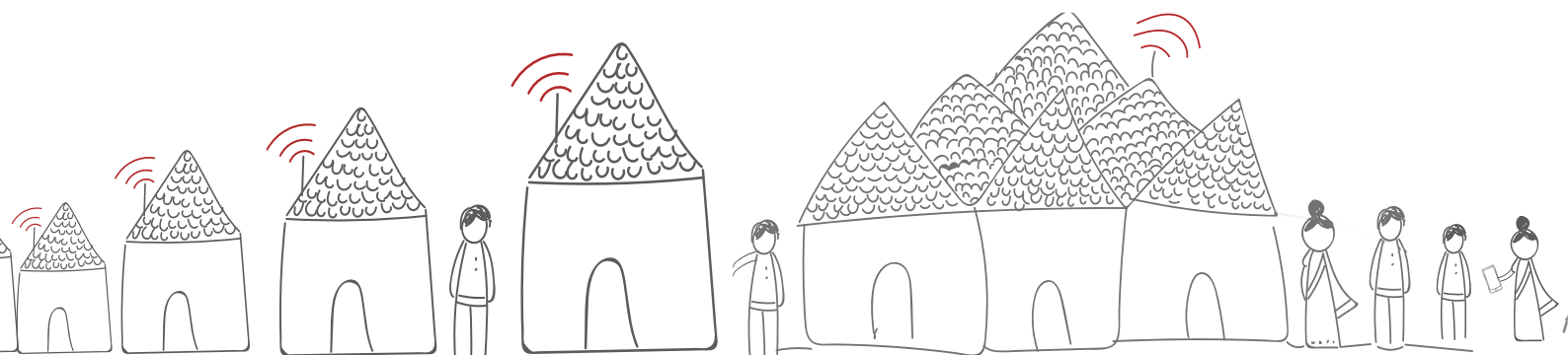
Moderator's Questions



- As community networks are typically a very localised deployment, do they then offer the possibility of trust-based information sharing within the community, as nearly everyone is known to everyone else?
- In what ways can community networks be leveraged to fight misinformation and fake news, particularly in the local community?
- What sort of initiatives can be taken by community network operators to create awareness around issues such as misinformation and fake news online?

Key points which emerged

- Facts are necessary, and the truth about any situation cannot be established without facts. Without the truth being out in public domain, democracies are in peril.
- It is important to provide digital literacy, so that people can identify misinformation. To do this, we should not just rely on the government. It is a collective responsibility to advocate and educate people so that communities have the skills to best utilise the Internet.
- The role of schools and economic institutions in media literacy is important. Additionally, even teachers need training because sometimes the teachers themselves are unable to spot fake news or understand the nature of misinformation.
- Community networks can be used to bring digital literacy into the community to fight fake news and misinformation.





Lisa Garcia: "It's not that easy to fight misinformation, disinformation, or fake news when talking about such a large volume of information. It is difficult to fact check all of it (although fact checking works), and sometimes you need the information immediately. But I would still say that fast tracking would help, but definitely media literacy is important, and it can be done in schools and in community networks that have centres that provide training. You have to be resourceful when you try to counter the misinformation, and you have to be creative -- you can use memes or videos."

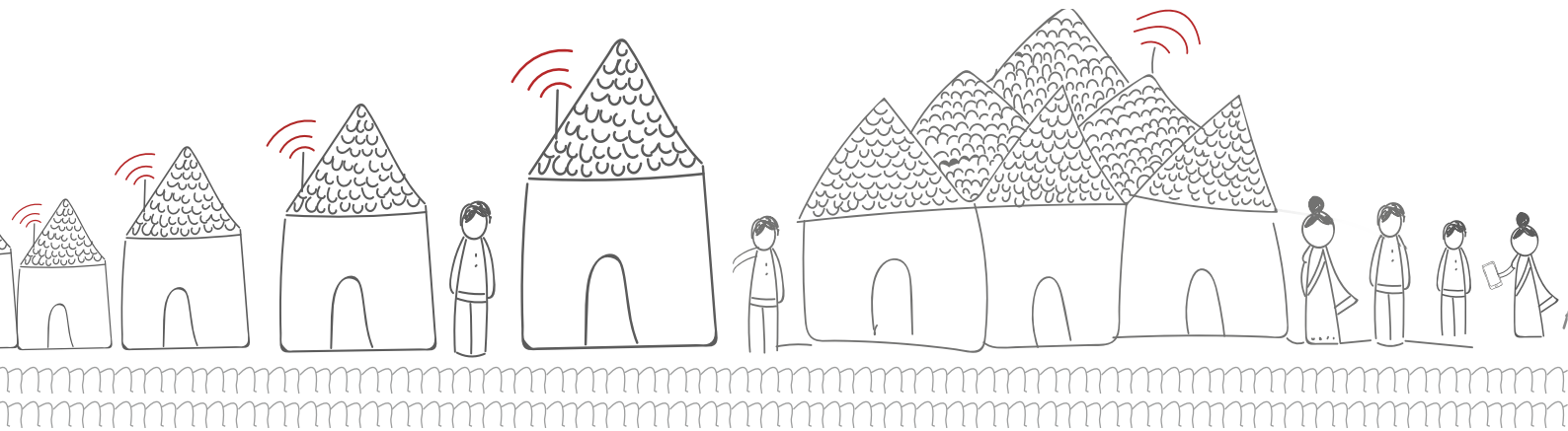


Waqas Hassan: "In the broader context, the role of government is to have proper regulation on how to tackle this. There is a role of the social media platforms that once there is some news on their platform, how do they share it, or how much do they allow sharing of it? There is a role of users, as well as the community. What kind of online ethics do we have? How do we see news, check it, forward it? But I like to really focus energies on the social media platforms because these are the companies that have the resources to deploy a fact checking mechanism."



Heru Tjatur: "In the last 10 years, the fake news and the hoax that it spreads is very scary to us. Most of the driving factor of the spreading fake news is usually from the political activity, and religious issue. In that sense, we believe that community network is quite effective because if the hoax or fake news is spreading on Twitter, then a lot of people could send out other compelling information and facts. But the most scary thing is when the hoax and the fake news is spreading from discussion forum or messenger group that are used, and these are very specific."

Watch the session [here](#)



Day 3: 26th November 2020

Topic 5: Gender Sensitive Community Networking

Various studies and reports indicate there is a significant gender divide in digital spaces. Many elements around the use of the Internet are male-dominated and this is sometimes exacerbated in rural areas. Community networks can provide an opportunity to bring about gender equity. This session discussed the efforts that have been successful in providing gender equity through community networks, and how that can be leveraged to redress gender issues across the wider community.

Session Moderator: Anju Mangal (Fiji)

Session Speakers: Shalini A (India), Maureen Hilyard (Cook Islands), Sarbani Belur (India), Yumna Panday (South Africa)

Sarbani Belur highlighted that that even when connectivity is enabled in villages and rural areas, it is men who usually use and benefit from it more than women. She explained how despite owning smartphones, women have limited digital literacy. She also touched upon why the access points deployed across villages seldom take into consideration the woman's access to it's location. Maureen Hilyard provided perspectives from the Pacific, and spoke about how community networks are being deployed and leveraged in the region. She added that these networks, primarily composed of women, are still at the grassroots, and growing. Yumna Panday highlighted the cultural differences and inequality between men and women that she has witnessed in the course of her work. She expanded on how her interests lay in understanding what community networks can do for women beyond activities such as promoting businesses. Shalini A spoke about her field experiences with young girls adapting effortlessly to technology when they were introduced to it, and how they could adapt when not stereotyped to the confines of their gender.

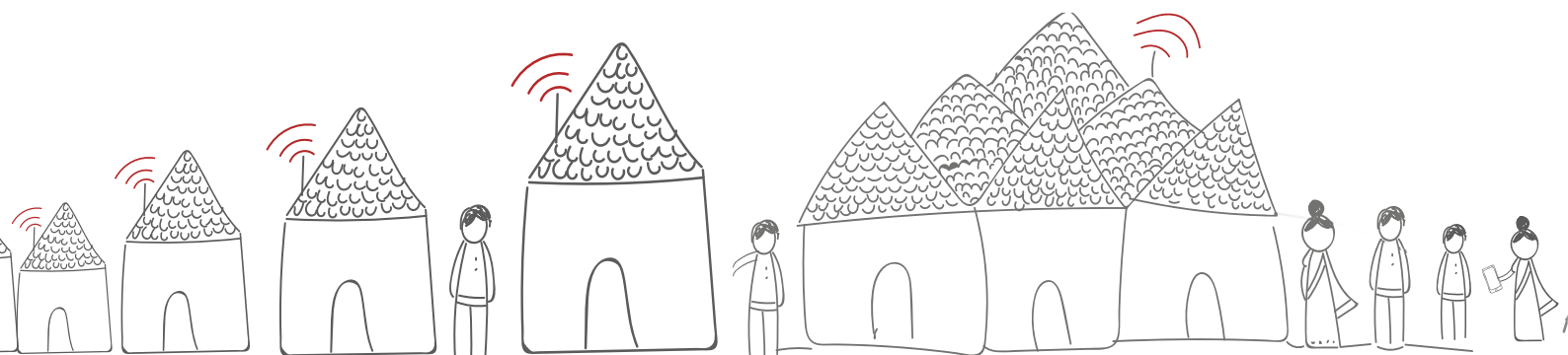
Moderator's Question



- How can community networks be used to promote gender equity, particularly for vulnerable parts of the community?
- Are there some good examples how the use of the Internet and online technologies have helped promote gender equity?
- What are some of the things that need to be kept in mind from a gender sensitivity perspective when deploying community networks?

Key points which emerged

- Gender equity is the process of being fair to both men and women, but as well, other gender identities need to be taken into account.
- Access point locations are often not taken into consideration in relation to women's presence in rural areas, or in spaces where they gather and work.
- Women should naturally be included in community networks, but often due to the male-centric approach taken during deployment, they do not feel welcomed and connected.



- Gender sensitivity has to be an ongoing process and the process of initiation is important. Women are not given opportunities to become experts as they are not included in the processes from scratch. Gender should not be suddenly thrust into a program, but it has to be an ongoing process.
- In certain communities and contexts, the cultural aspect, along with bridging the barriers of class and caste, needs to be taken into account. There has to be an intersectional approach.
- Progress towards gender equality must be grounded in solutions that are led and owned by local stakeholders, and which respond to local realities, because a lot of these policies are designed without hearing from these key voices.
- The skills need to be identified in people, instead of being relative to gender. The Internet is for everyone, and inclusivity is necessary. It is important to understand the different dimensions of inclusiveness -- especially when including rural and indigenous people.



Shalini A: "You have to just give the girls what they need, without judgement or stereotyping... You give them the link, and they do amazing things. This is what I learned from my field experience with the girls and the women who I worked with... So when we introduced the smartphones, initially it took them some time to adapt. But when they started to conduct online session, sharing their designs, handing out whatever they were doing, the results that we saw were amazing. Their voice was very strong when we introduced community radio into the community, the radio gadgets."



Maureen Hilyard: "There may not be huge groups, but I think within the Pacific we're seeing some groups emerge, and it's a growth area, because people in the Pacific know how important Internet development is, and they are turning towards it".

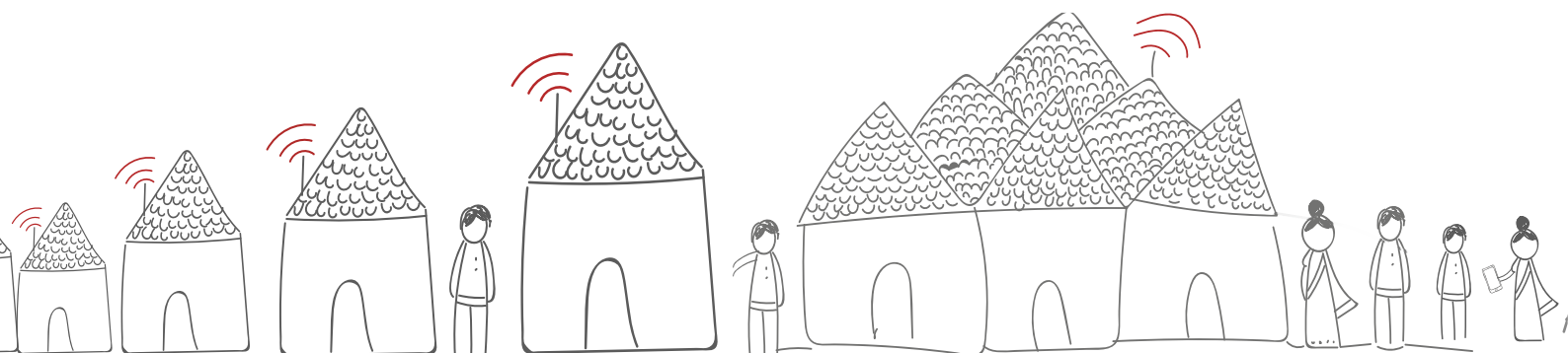


Sarbani Belur: "The explanation of connectivity and what connectivity can do for the community is mostly focused on men. Women don't want to understand what that network is, what are the devices, how the devices can be powered and things of that sort. They want to understand, real life situations, like for example, a woman asked me can she get some information about reproductive health, because she is not allowed to watch anything on her smartphone by her husband. Other issues are with respect to financial inclusion, regarding privacy and security, and the outcome of a bank account getting hacked, and money being stolen -- women need to understand these issues."



Yumna Panday: "Women should be from the onset a part of it, right from when you create the network, to when you deploy the network. Even in just the research element of it, because often it is men who go out and conduct the research, and the women are secondary, with their needs being accommodated only later. I'm not saying that happens everywhere, but from what we've picked up."

Watch the session [here](#)



Day 3: 26th November 2020

Topic 6: Content, Context and Community for Community Networks

Community networks are designed to serve the community's needs and are often built by the communities themselves. The relevance of community networks is in the fact that they have the ability to far better contextualise local content, local content consumption, and production through the involvement of the local community. This session explored some best practices in how communities are using community networks to create localised content for their local communities, and suited to their local context.

Session Moderator: Udita Chaturvedi (India)

Session Speakers: Ramprasad Venkatesha (India), Michael Suantak (Myanmar), Maureen Hernandez (Venezuela)

Maureen Hernandez explained how connectivity boosts the local economy and local businesses, which allows people living in remote parts of the country to not leave their regions for urban areas. Michael Suantak explained the different community networks models, some which are online, some offline, and others which are hybrid. He also emphasised the need for local content to preserve local culture and identity of indigenous communities. Ramprasad Venkatesha explained the work of his organisation, and the significance of having a human face to community networks who can act as a catalyst and hand-hold the community for digital services and knowledge sharing. His colleague Ms. Pooja, emphasised the need to have facilitators conversant in English and regional languages, to ensure that content had a wider reach.

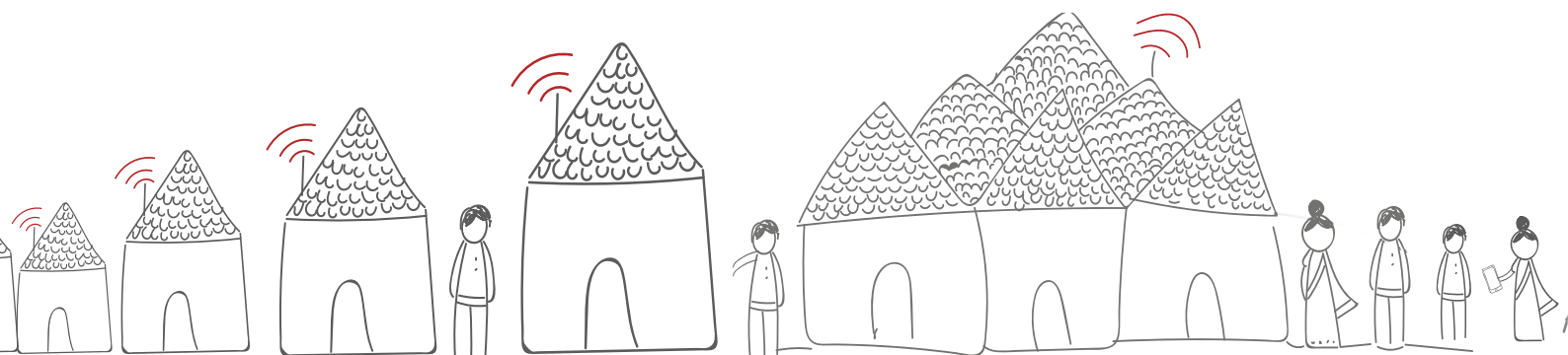
Moderator's Questions



- Community networks are deployed to serve the local community. How do we ensure the community has the necessary digital literacy skills to make full use of digital opportunities the community network provides?
- What steps can be taken to ensure that the community is not just consumers of content but creators as well? How should this be contextualised so its relevant?
- Are there some good examples of how the community is producing and consuming locally relevant content?

Key points which emerged

- Community networks should be owned by the community, and exist for the community.
- Collaboration is the key principle behind the concept of community networks, whether it's establishing, maintaining, or producing content. The key is to connect to the Internet in a manner in which people can explore the online world and find their own contextual relevance to empower their lives.
- Bringing external knowledge that is useful to locals through digital platforms is an important intervention for locals and for communities, and a catalyst to leverage further digital opportunities.



- It is important to keep local education systems, dialects and languages in mind when creating content for digital platforms, as well as understanding the audience it is aimed at.
- Community networks can help promote local products and that can further help with economic empowerment.
- Community networks are a complementary access model for underserved areas, and should be seen as a complement to solutions from telecom providers and government efforts that helps further digital participation.



Maureen Hernandez: "We want to bring the benefits of the outside world into remote villages, but we don't want to take the people out. We don't want to make them just use the tools such as Facebook or WhatsApp. The real and the great benefit I think, is to preserve culture and roots, and that is a beautiful thing. That is actually one of the main things community networks have as a core -- it's the capability to maintain roots."



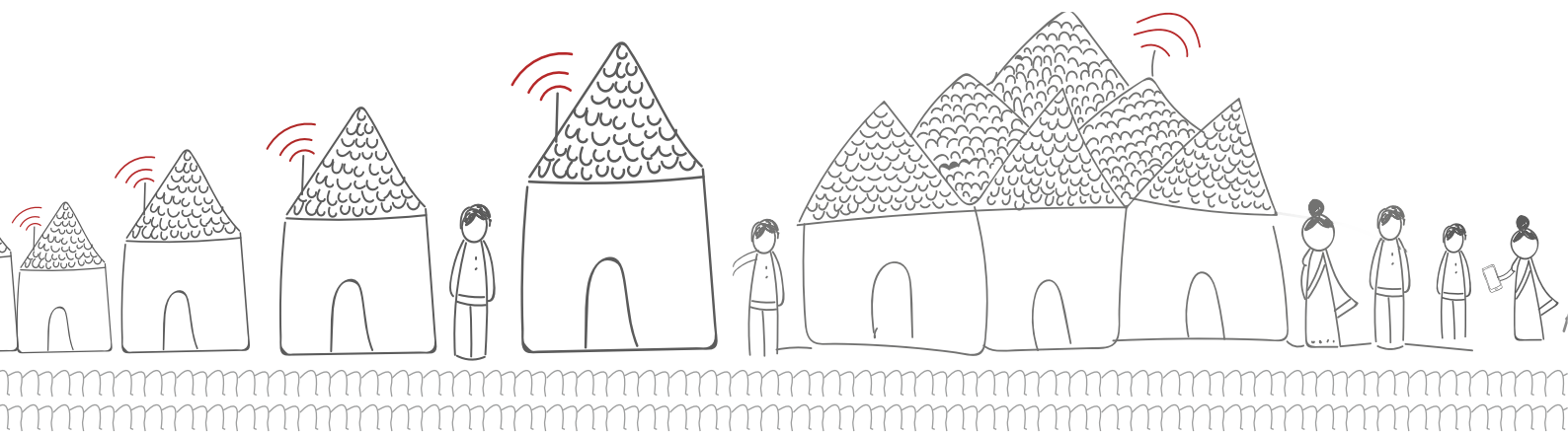
Ramprasad V: "Just like how the Indian government says vocal for local, I would proudly say digital for local. Go digital go local!"

Ms. Pooja: "Making a change in the system or in the language that is available on the mobile device, is very difficult as of now, but through a facilitator it can be possible. They can be given basic training and they can explain terminologies."



Michael Suantak: "I think there may be different kinds of community network models, some may be offline, some may be online, and some may be like a hybrid one. The community owned network should be by the community, for the community, and no one from outside should interfere with the usage, or add censorship. Access to information for the community is important in the pandemic and it is also important to have a two-way communication, not only to consume the content from the Internet, but also to produce and provide the content to the international community... sharing the unique aspects of the community, like customs, traditions, the places, and the way of life. This could be interesting for the international community, but it is also very important for other people to know that other people exist and survive. So, building the community, and its local content is important for preserving customs."

Watch the session [here](#)



Day 4: 30th November 2020

Topic 7: Community Radio & Broadcasting with Community Networks

Community radio networks excel in producing local content with local context. They are also usually developed, managed, and produced by the community, for the community. Community radio operators also know the best ways in which to broadcast content and reach out to the larger community. As such, they are well-placed to evolve into community network operators as they also have technical knowledge about radio transmission and radio mast design. This session discussed how community radio operators can transform into community (Internet) network operators and provide greater value to their local communities.

Session Moderator: Osama Manzar (India)

Session Speakers: Laila Ndagire (Uganda), Venu Arora (India), Bazlur Rahman (Bangladesh)

Venu Arora spoke about how on the one hand, the world is super connected, and on the other there is marginalisation of voices because of monopolies. Laila Ndagire spoke about ways of integrating community networks and community radios. She spoke about how community radios faced many challenges because they don't enjoy a wide coverage, especially in Uganda, where the spectrum provided is limited. Bazlur Rahman spoke about the community radio broadcasting challenges in Bangladesh which include reduction in the number of listeners, lack of attention of policymakers towards community radios, and listeners becoming more interested in video content, then audio, or content on demand. He suggested how the solution lay in harmonising with community networks and building a community cooperative Internet.

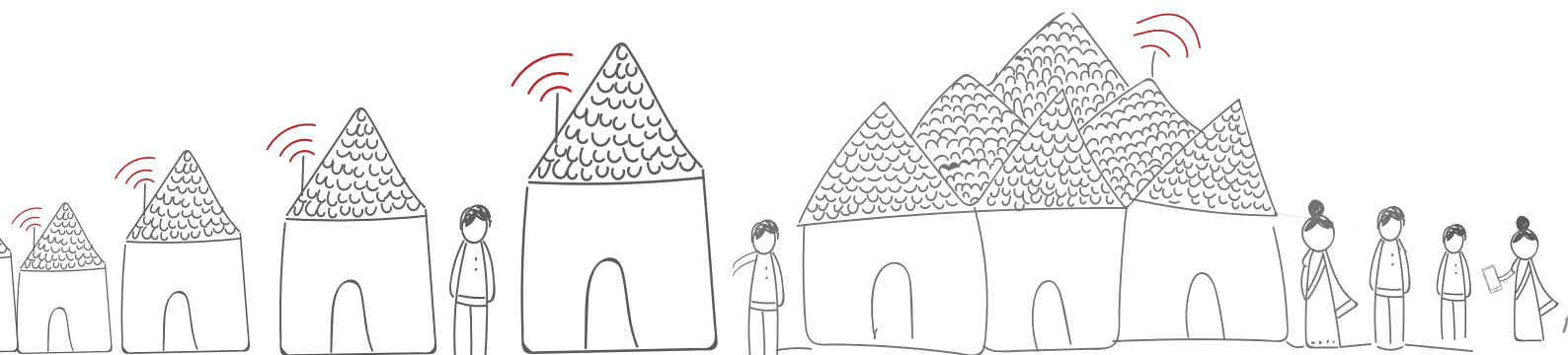
Moderator's Questions



- What are some of the synergies between community radio operators and community network operators?
- Are there any barriers for community radio operators to become community network operators.
- Why are we not seeing this transition? What is needed to make this happen?

Key points which emerged

- Community network and community radio complement each other. They are not a replacement for each other, instead they go together.
- There is a need for capacity building in line with the new scenario of community network broadcasting. Capacity building is important as it will help to sustain the networks.
- Community radio broadcasting is still largely being done using analogue methods.
- The issues around equipment needs to be addressed, and the equipment needs to be of high quality for network reliability.



- The time is right for reorientation along with re-skilling, de-skilling, and up-skilling. There needs to be further emphasis on the technical synergies between radio and community network operators.
- Everyone should be able to access the Internet, and governments need to treat it as a human right. If we can have community networks in place, we can have better impact on people's lives through timely access to information.
- Funds and capacity building are both important in order to sustain the continued operation of networks.
- The three principles of community network are that it should be community-owned, community-run, and community-managed. They can be sustainable, if we go by these principles.



Bazlur Rahman: "We are on the way to develop an artificial intelligence program, for how we analyse our content regarding different issues, say gender disparity, as we often find gender disparity within the content. In this regard, artificial intelligence can help us analyse the content, as well as help the community reporters. We have a thousand Community Radio reporters all over the country and they need up-skilling, de-skilling, and re-skilling."

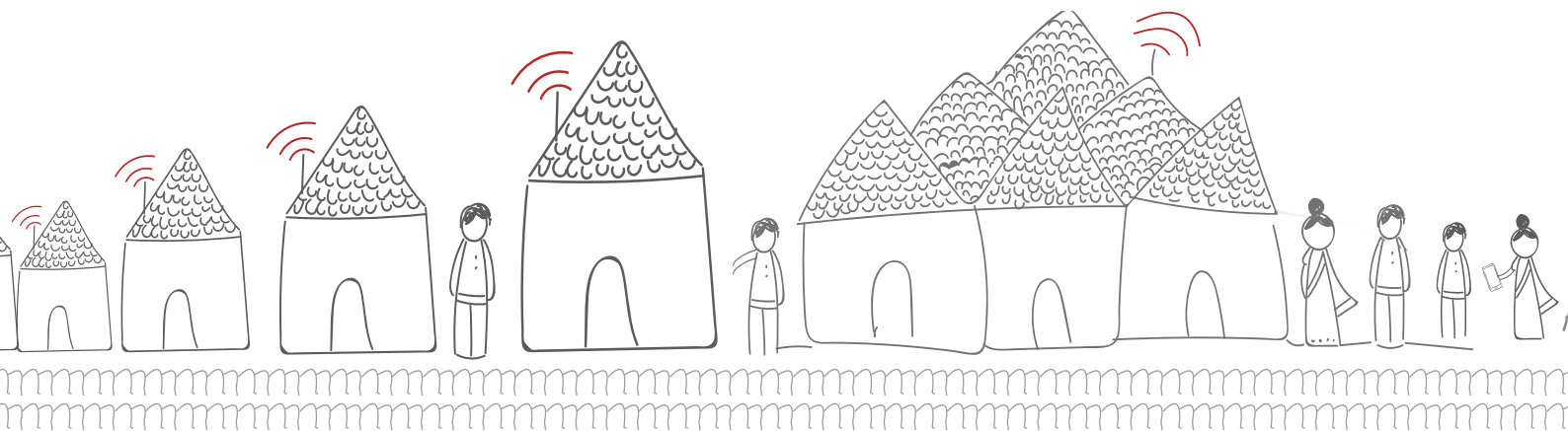


Venu Arora: "We have to push for a rights-based approach to online resources. We are currently running a program with 40 community radio stations across the country on nutrition, where we are also working with the frontline workers, and the frontline workers don't have access to the Internet. So, I clearly see the requirement and the need, but I think it's about, coming together both in terms of content and context, and see how you can create a blended approach."



Laila Ndagire: "I'll give an example, in Uganda it's the women who lack access, and they are the most affected. They don't have smartphones, they have analogue phones. And we are being charged over the top tax to access social platforms. So, you have to pay to get access to social media platforms. And we see that women are doing a lot of work, being on the radio. If there is a network, and they can post the issues that are affecting them, it can be easy for them to raise their voices, and also other marginalised groups like the people living with disabilities... and so I think that community networks, if we can have them in place here in Uganda, we can actually impact the lives of the people. And it can help us gain access to information from different people from across society."

Watch the session [here](#)



Day 4: 30th November 2020

Topic 8: Training & Cadre Development for Community Networks

As Internet access and provision becomes further localised with communities in remote areas getting connected, there is a need to build local capacity for developing, managing, maintaining and sustaining the network. It is important to create local cadres that know local content, have the local context, and are able to play a part in locally developed community networks. This session explored the ways in which this type of capacity building can be facilitated.

Session Moderator: Naveed Haq (Pakistan)

Session Speakers: John Dada (Nigeria), Sylvia Cadena (Australia), Ritu Srivastava (India)

John Dada spoke about the significance of technical expertise and explained why his initiative emphasises on training and building capacity among women. Women in the communities are likely to stay, unlike men who often leave for urban centres. He also spoke about critical infrastructural requirements such as power, which remains an issue across rural communities. Sylvia Cadena emphasised the benefits of community, and a grassroots approach, which serves a bigger purpose of preserving the core values of the Internet. She added how a challenge to small ISPs and community networks across the region is the attraction towards technical tinkering, rather than into looking at the nature of the content provided and services that exist. Ritu Srivastava explained the two kinds of training required - setting up and planning of the network, and implementation including technical requirements for training purposes. She also highlighted how a lot of training appears to be boiler-plated -- going through everything but focusing on the technical. There is an opportunity to segment training into different aspects e.g. technology, management, digital literacy, and to provide better relevance to different people.

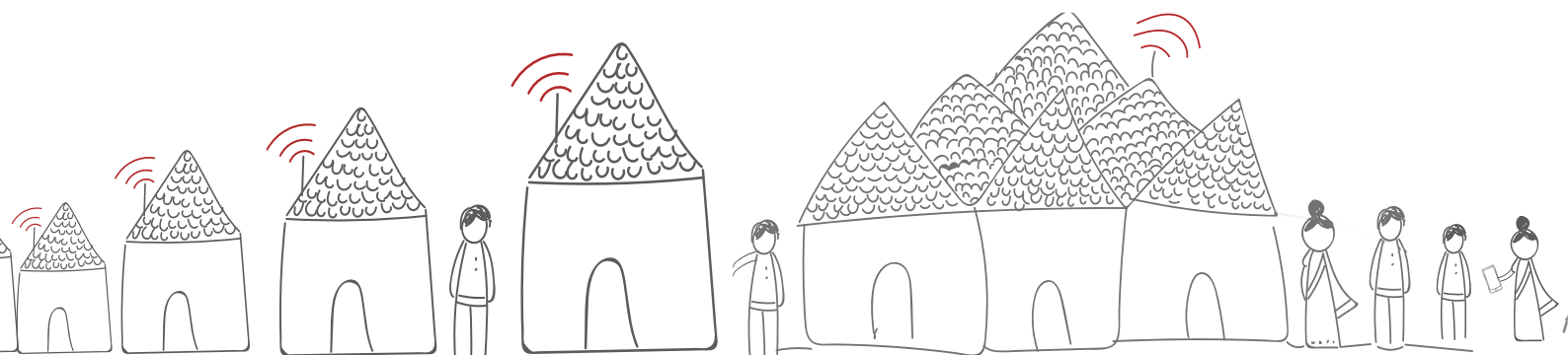
Moderator's Questions



- Beyond the initial deployment of a community network, what technical expertise is required to operate and maintain the network?
- How easy is it to train people from the local community to build, operate, and maintain community networks? What is required?
- How do we ensure that the people trained continue to update their skills and knowledge and go on to become community network champions themselves?

Key points which emerged

- Early adaptors to technology among women should be identified and incentivised to leverage the full potential of technology.
- Infrastructure should be built on the capacity of the community, without putting a limit on what should be done or not done.
- There is a need to study the real gender gaps in the staffing of community networks. Simply stating that women are welcome, does not bridge the gap.



- It is important to ensure training is conducted in local languages as people are typically not conversant in English in the locations where community networks are being deployed.
- Community networks training often appears to be boiler-plated — while they cover various aspects, they tend to focus on the technical issues. There is an opportunity to segment training into different aspects e.g. digital literacy, network management, business operations.
- Training of different skillsets has to be provided depending on the interest and the requirements of the community.
- It is important to build technical capacity within the community so that they can manage, maintain and troubleshoot the network on a day to day basis.
- Incentivising local champions and the local people that are trained may prove to be useful as it will allow them to be volunteers to help the community as well as provide them an opportunity to earn money by providing services.
- After the initial training, there needs to be continued engagement with those who were trained to keep them up-to-date with new developments and best practices. On-going capacity building is necessary.



Ritu Srivastava: "Language is a major challenge which we face. We always feel that the technical things have technical jargons around it. But are we able to explain the technical jargon in a simplified manner? That is one of the most important roles that community network providers have to play and explain the jargon. We need to make it not only about the Internet, but also about the content, the local access of the content, and the management of the education or health services as well. This allows for a two-way communication system."

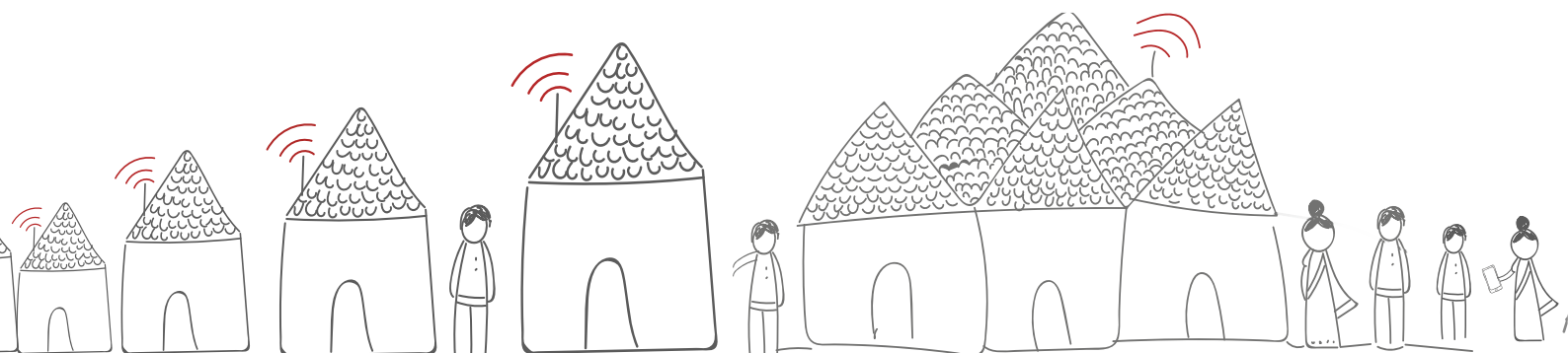


Sylvia Cadena: "The content to be delivered, varies depending on the services that people are going to provide. It's important to look at how the demand of the community is actually pushing for additional services to be incorporated. In that respect... that the constant conversations with the users and the intermediaries that are working with communities around what's coming, that say it should be a driver in what training is setup... is not a reactive thing that happens if a new piece of equipment arrives. But it is something that is thought a as part of an ongoing process."



John Dada: "So beyond the deployment of community networks, the kind of technical expertise which you require, will depend on the kind of content you are providing for the people, and what applications and services you have, that are for the people. Oftentimes, one of the deciding factors, especially in rural Nigeria, is that rural communities have very low level of technical competence."

Watch the session [here](#)



Day 5: 2nd December 2020

Topic 9: Partnerships & Collaborations for Community Networks

Community networks while considered to be affordable and participative in terms of local participation, also require the involvement of multiple stakeholders for success. These range from community organising, financial assistance, donor backing, to technological assistance and so on. This session explored how different stakeholders can come together to make community networks successful and also looked into ways to enhance collaborative efforts and partnership across different stakeholders.

Session Moderator: Jane Coffin (United States)

Session Speakers: Anju Mangal (Fiji), Leandro Navarro (Spain), Sarbani Belur (India)

Anju Mangal emphasised the need to understand people, the environment, the processes such as legal frameworks, understanding land rights, and the types of technology being deployed. She emphasised having design thinking and a business analysis approach that ensures that people understand the importance of technology. She explained why having stakeholder consultations is critical as users are the most important factor when deploying community networks. Leandro Navarro explained how 'need' was the key factor in deploying networks as people sometimes are not particularly interested in playing with technology, but they have real world problems to deal with. When people feel the need for connectivity, for instance in the current pandemic situation, (to attend lectures or address health issues) it is then that the communities realise that that they require infrastructure which allows them to do something meaningful. Sarbani Belur emphasised the human element of deploying networks and three important strategies which include gaining trust from the community, their cooperation, and getting the community involved in the connectivity.

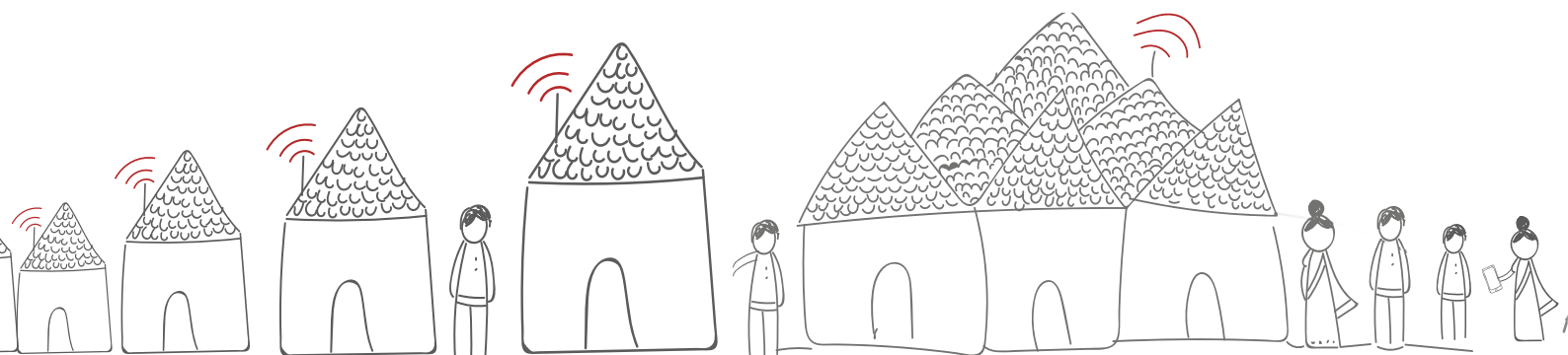
Moderator's Questions



- The key word in 'community networks' is community. What are some of the key success factors for community buy-in when deploying a community network, particularly in areas where awareness and literacy levels may be low?
- Beyond the local community, what sort of assistance is available from other organisations working nationally, regionally or globally?
- What mechanisms are being used to disseminate information, and provide assistance, to people who want to establish community networks? Are these reaching those in greatest need, if so, how?

Key points which emerged

- There needs to be a culture of sharing and collaboration in community network spaces.
- Social media can be used to disseminate information, including providing assistance to people who wish to establish a community network.
- There are three success factors for community networks: gaining trust, cooperation, and involvement of the community.



- Without partnerships and collaboration, community networks would never have been possible. The multi-stakeholder model is a hallmark of the possibility of community networks.
- It is important for policymakers to understand the needs of the communities and the local context.
- It is important to listen to the people in local environments, to bring in other partners and build a pyramid base of partnership that is strong and diverse, so that there is sustainability.
- There is a need to have people who understand the community, and it doesn't have to be someone necessarily from the community. It can be people who are engaged with and working behind the scenes with the communities. They can then serve as a bridge between the community and other stakeholders.



Sarbani Belur: "The most important thing is gaining trust from the community. The second thing that comes up is cooperation and the ways by which we need cooperation. We have to walk an extra mile with the people to tell them that we will hold your hands and set up the connectivity together, and the connectivity is not for us, but for you. And the third is the involvement of the people, which means getting people onboard. You have to make them involved with the process by trying to tell them the benefits of both offline and online connectivity."

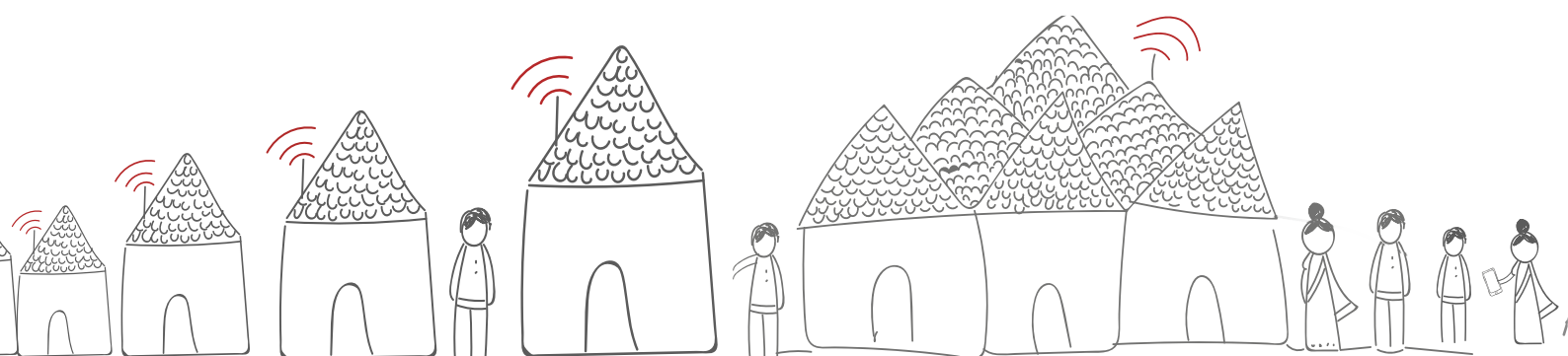


Leandro Navarro: "When the problem is identified and the need is clear, it's a matter of time to find a solution and that depends also on what people are around ... and creating an infrastructure depends also on you and also on external assistance from others. But I think that the need is a key factor, because people sometimes are not particularly interested in playing within technology, but they do have real world problems. And this is the main motivating factor of course you need also community, you need really an existing connection between the people that have their own ways of doing things. And then, well, you need to learn that, and you need to join them in implementing the ways they know how to create or maintain other type of economic, social, infrastructures and then ... it can be applied to connectivity as well."



Anju Mangal: "Community buy-in is important but it requires a multistakeholder approach and a bottom-up approach. It's equally important to invite people who understand the process, the technical aspects. Find investors who can provide private and public financial investments. We also need government support systems to provide a favourable policy and regulatory environment. It's important to bridge the gap between policymakers and the communities because it is the missing component. And it's about collaboration and having the right adequate resources that help build community networks. If you want a sustainable model, it is important to ask the right questions 'what do we have and what do we really need in order to be sustainable' - and find a way to share common resources, tools, technical expertise, funding and intangible resources like knowledge and culture."

Watch the session [here](#)



Day 5: 2nd December 2020

Topic 10: Connecting Indigenous Communities

Generally speaking, tribal, aboriginal, and indigenous communities tend to live in rural and remote areas, away from industries and cities. More often than not, they are the last populations to be digitally connected. These communities are also culturally rich with their own linguistic and social practices, and norms. While they require digital connectivity and access to the Internet just like anyone in an urban area, it is important that community networks practice sensitivity and inclusion without violating and polluting the community's social norms and practices. This session discussed the ways in which community networks can better serve indigenous communities.

Session Moderator: Maureen Hilyard (Cook Islands)

Session Speakers: Emani Lui (New Zealand), Nasir Hashmi (India), Mark Buell (Canada)

Emani Lui stated Internet service providers do not typically take into account culturally sensitive issues. He emphasised respecting the local culture and contexts in which networks are deployed. Mark Buell spoke about using Internet access to be part of a larger global indigenous community, and that indigenous peoples around the world share similar experiences, including colonialism. He also emphasised working with communities with an approach that is both community based and community paced and developing strong partnerships. He added that the challenge with this approach lay in the fact that it was time consuming and hence not something a lot of people are used to doing, which is getting to know the community, their norms, protocols, and building the relationship of trust. Nasir Hashmi explained how there is a huge potential for network and Internet visibility in India. He also emphasised how major companies are not interested to invest, (or have limitations) in small and remote areas across India, where there is a critical need for connectivity. He spoke about developing local content across users, across the country.

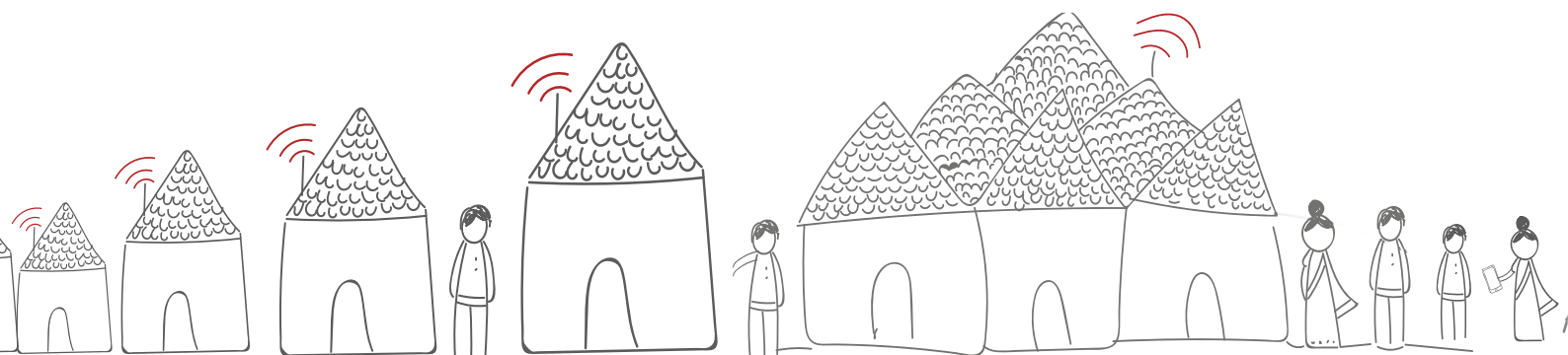
Moderator's Questions



- Tribal, aboriginal, and indigenous communities are often the last to be connected. What would having Internet access mean to such communities?
- How do we keep cultural contexts in mind when connecting such communities?
- Are there some good examples of how such communities have been able to leverage Internet access to improve their social and economic conditions? Can these be replicated?

Key points which emerged

- The Internet is important for indigenous communities to understand various developments and innovations across the world, and how they can benefit from these.
- In diverse countries (such as India) what is required is content in local languages that sides with local traditional practices of communities.



- The Internet is helping younger community members continue their studies during the pandemic, when access to basic education is difficult.
- The Internet is emerging as a new tool to help communities such as those from the High Arctic in Canada to not just survive, but thrive.
- Preservation of culture, language and traditional knowledge is important. The Internet can also be used to connect with other indigenous communities around the world to share similar experiences.
- It is about working with communities, and not about working on communities. There is a need to ensure that initiatives are community based and community paced.



Mark Buell: "So in 2019, we started working with a native Hawaiian community on the island of Oahu. This is an indigenous community that is very traditional. And they had no Internet access at all. So over the course of six months, we've worked with community members to train them to build, operate, and maintain a community network. In late 2019, they successfully deployed the network with a number of partners and have been running it successfully to date. The reason I say this is our most successful one is they are about to undergo an expansion of the network that goes double in size, to be able to sell Internet access to their non-indigenous neighbours. And in doing so will subsidise the network for community members. They've gone from no connectivity, no technical experience or knowledge to successfully operating an amazing network that supports local economic development. It's really a shining example of the power of community networks."

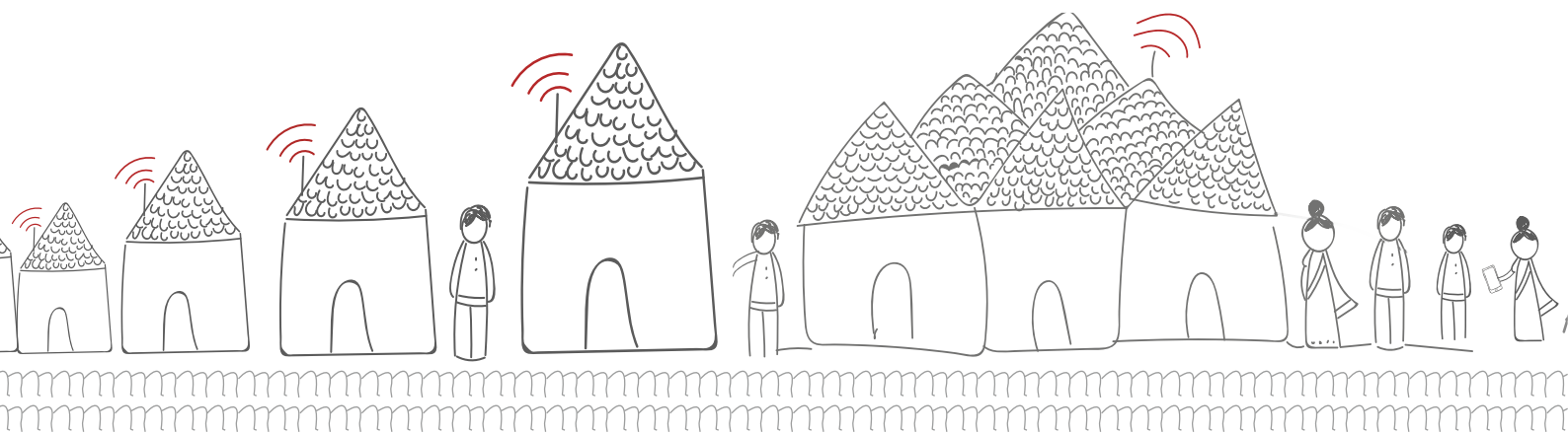


Emani Lui: "Simple things like when we are entering a household you know, we show respect, we take our shoes off before entering ... we are culturally aware. So it's bringing across something like that into our Pacific communities. Please note that these are urban areas. And it's odd to say that a lot of them are not well connected. So to be able to stand in that space, to improve the connectivity in an urban city, in a developed nation, is an opportunity to again serve our people."



Nasir Hashmi: "If we can serve what the community needs and what the community demands, then what we bring for the community will be sustainable and the current and future generations will benefit from technology. Right now we have the dual challenge with connectivity issues, and with content that needs to be curated in local contexts. If we can bear and solve all these challenges together, we can serve the communities with connectivity."

Watch the session [here](#)



SUMMIT ROUNDTABLE

Day 6: 4th December 2020

Speakers: Mahabir Pun (Nepal), Onno W. Purbo (Indonesia), Atsuko Okuda (Thailand), Mary Grace Mirandilla-Santos (Phillipines), Osama Manzar (India)

Session Moderator: Rajnesh Singh (Australia)

This session brought together the learnings from the 10 topical sessions of CNX 2020 with each panelist offering perspectives and solutions on the way forward. Rajnesh Singh began the discussion speaking about the ramifications of the pandemic and how people turned to the Internet to figure out how they could continue on with some semblance of normal life, whether it be work from home, accessing online education, or for people who had movement restrictions, staying at home and using Internet-based streaming and content services to keep themselves occupied. He also highlighted the contradiction of contemporary times, where in trying to use the Internet to deal with the pandemic, the fact still remained that more than half the world was offline.

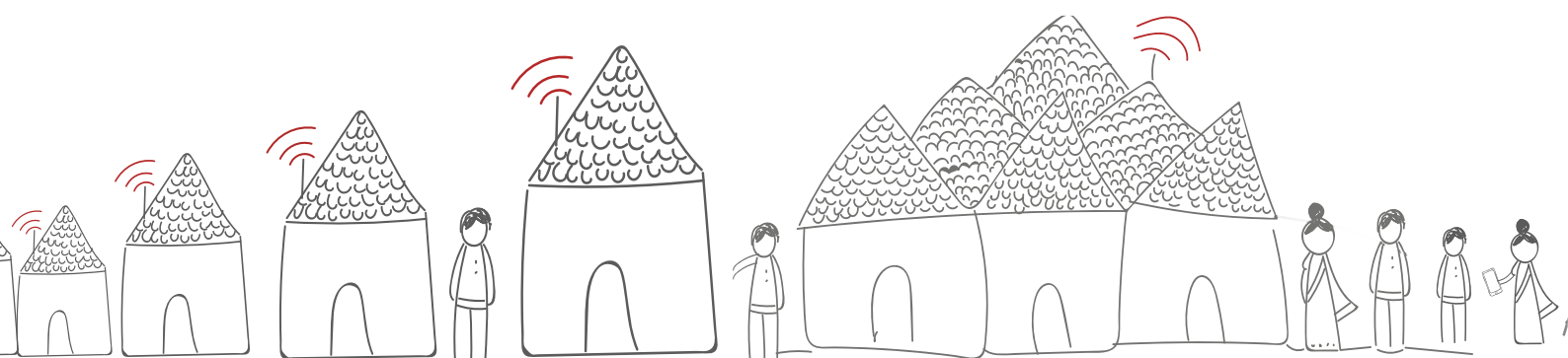
On being asked what connectivity means to him, Onno W. Purbo explained two meanings to understand what access means to the community - first as access to the Internet and communications, and second as access to knowledge. "To give us some idea, we have 10,000 villages in Indonesia without any communication or Internet out of 80,000. For knowledge we have about 200,000 Primary Schools, and we are facing problems because of the pandemic as students have to go home and you have to accept and work around it," he said.

He said the solution to access to the Internet lay in the fact that the government signed an act that allowed people to deploy experimental networks. This allowed the people to be empowered and build networks. On access to knowledge he added that for the next year, he wanted to deploy Internet offline by downloading content onto small servers using Raspberry pi which could be deployed widely.

Atsuko Okuda said that the countries and sectors which had invested earlier on digital platforms moved onto the platforms far more easily during the pandemic. However, the pandemic accentuated the existence of unconnected and under-connected communities. "So there is a rush, so to speak, at the moment to identify where they are, and how best we can accelerate this whole process, nationally, regionally and globally," she said.

She also emphasised addressing questions around capitalising on the resources, networks, and experience on the ground to benefit a community. She added that it was not the engineering and technical questions, but rather the social and economic realities on the ground in the community that needed to be addressed.

Mahabir Pun explained the differences between the meaning of connectivity 25 years ago and the present day. He mentioned how in the past he had to walk long distances to make a call or walk for a day to check his email in a town with Internet access. He also explained the two types of connectivity that have evolved. The first is voice communications and the second is getting access to data or sharing data - both are still unavailable in many remote villages. He also stated how in the past the nature of connectivity was different but today, students, teachers, doctors, everyone needs data to communicate. Voice communication connectivity is not enough.



Mary Grace Mirandilla-Santos spoke about the impact of COVID-19, which put many below the poverty line in the Philippines, and on the impact to education in particular. She mentioned reports of students having to climb mountains or trees for the sake of a mobile signal in order to continue with their online learning. She also highlighted the case of students without access to the Internet and who have had to resort to continuing their education using TV and radio broadcasts.

"One of the key culprits to lack of connectivity is the Philippines still uses a very restrictive analogue era licensing process. So for any broadband network operator to be able to put up a network, one needs to get a franchise from Congress as a first step to licensing, the second step would be to get an authority station from the regulator. So these two steps take between one and five years, and small Internet service providers do not have the luxury of time and resources to go through this regulatory and licensing process. There is no special licensing for community networks in the country."

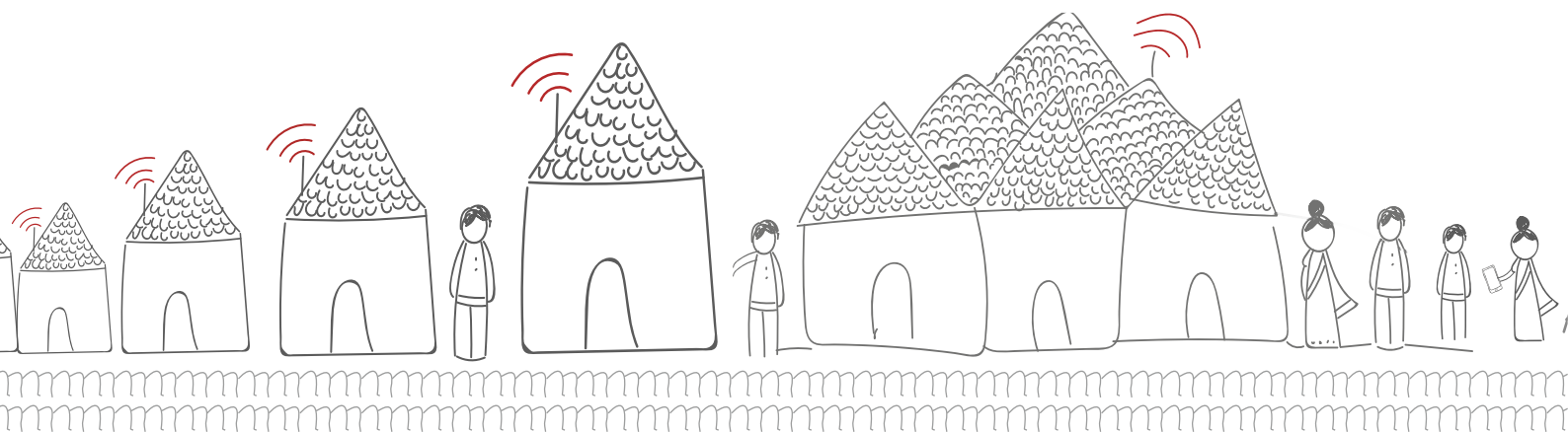
Osama Manzar explained that human dependency on connectivity has reached such a level that lives can seem meaningless, irrelevant, unconsidered and ignored if one is not connected. The ramifications of these are immense and could lead to people not getting access to food because biometrics is not functioning leading to the digital identification not matching. Data then is a necessity but is not available to all, along with the unaffordability of mobile phones. He also emphasised the need for useful or meaningful connectivity, citing examples of student committing suicide because of lack of connectivity.

"These people had no connectivity. So not being meaningfully connected is disrespectful, disgraceful, being disenfranchised and a violation of human rights. And that's the difference between the connectivity today and the connectivity in the past," he said.

In concluding the roundtable discussion, Rajnesh Singh suggested that that pandemic had opened up a small window of opportunity to urgently emphasise the need to connect people and that was something that needed to be leveraged by all stakeholders.



Atsuko Okada: "I think gradually we should think about the "new normal." What happens after we all get vaccinated? We will go back to a more normal life, but it cannot be a life that we knew before COVID-19. And I think this is a challenge that what does that look like to all of us, to all of this community? And I think we have to catch that wagon, which is going very fast. And I think we have to really strategise on catching up technologically, and society, and perhaps business, agriculture, and government -- services which all moved on with COVID and acceleration of the digital transformation. So I think this discussion is very important, strategic and timely. And I think we have to pull the resources and knowledge together so that we can also accelerate at the community level to get on to that speed of digital transformation."





Onno W. Purbo: "The people have the knowledge, the people have the funding, they can fund the network themselves. We can build the network ourselves if they allow us. I'm really hoping if this can be organised, it can create a big force to the government to change the regulation, to be more pro-people and empowering the people to build our own network. And we can be an example for the world. The Asia-Pacific can build out their own network."



Mary Grace Mirandilla-Santos: "There are a growing number of stakeholders in the Philippines that are pushing for reforms in broadband policy. And when I say a growing number, I do mean civil society as well as business organisations, or the biggest consumers of broadband. Poor connectivity doesn't only affect those in the countryside. It also affects those who are already connected, and those who are connected, but not in a meaningful or desirable way."



Mahabir Pun: "To make community networks sustainable in the long run, the first thing is the community has to own it, and the community needs to own it. And mostly my role for building community network is to provide them technical support. I frankly tell them that you have to raise funds and that if I get some funding from donors, I can provide that. From the very beginning, I made this community aware that they have to take it over, maintain it and have a technical person to maintain the network. So from the very beginning we train the people from the local areas, to learn how to fix and troubleshoot the problem there. Technical sustainability is very important, because if people cannot fix it then it will not run for a long time. So, for technical sustainability, we have to provide technical training to the local people and the community has to find the local people. They have to find ways to pay them, to pay for Internet bandwidth to the service provider, and also, they have to find ways to fix the problem."

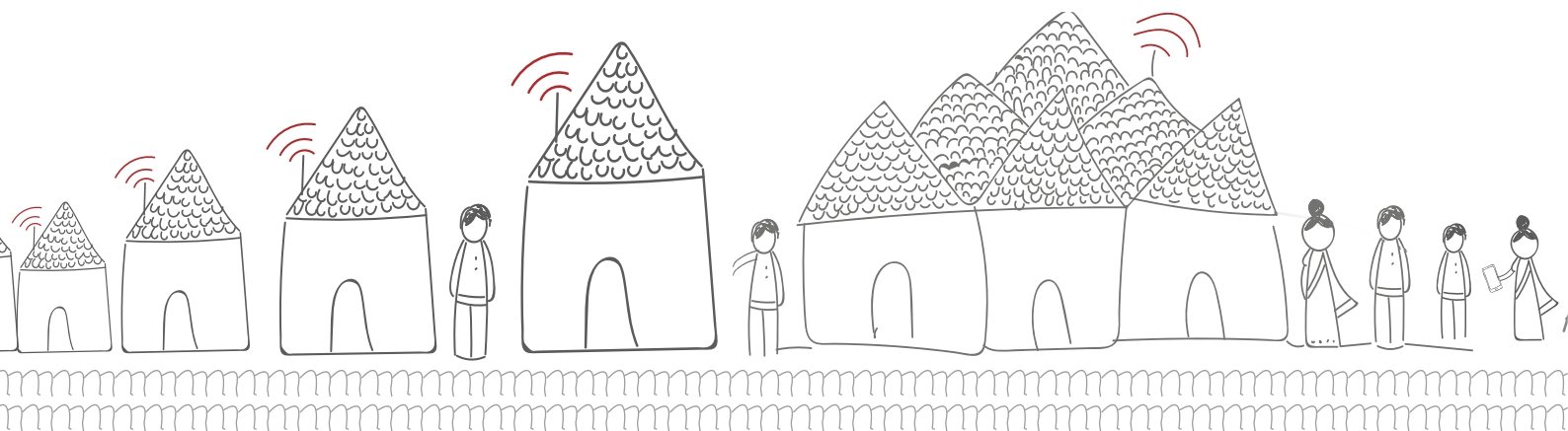


Osama Manzar: "Why are community networks or any innovations not connecting all the people and regions of the world? I thought of reasons why we are unable to connect people. It is because we are dependent on regulation, we are dependent on funding, and we are dependent on some other entity to do the work. It's something like if you want to live in a house, would you always depend only on an architect? Will you always depend on a chef for eating food or somebody else to cook your food? So why have we not deregulated, unlicensed, and not 'technologised' the entire Internet in such a manner that everyone can take responsibility without any barriers to connect themselves from wherever they can?"



Rajnesh Singh: "The one thing that I think is the most striking for me is that there's a need for urgency to connect people. We have a small window of opportunity, you know. I hate to say it but thanks to COVID-19, we have this small window of opportunity that I think we should leverage as much as we can. And then of course, the other very critical thing, we need to take a multi sectoral approach. If we can get the other sectors to apply pressure, you know, I think we have a better chance of moving forward with this."

You can watch the Summit Roundtable [here](#)



REFLECTIONS FROM CNX APAC 2020 ON THE WAY AHEAD

There is a need for urgency in connecting people – the COVID-19 pandemic has demonstrated how critical the Internet is for all parts of society. A multi-sectoral approach is needed, and all sectors should work together to advocate for meaningful connectivity.

There is a need to focus on "responsible connectivity" which enables people to benefit from digital opportunities without undermining anyone's human and digital rights.

There is a need to strategise how best to introduce and use technology and accelerate digital transformation. Resources and knowledge from far and wide should be pulled together to help enable this acceleration at the local community level.

It is important to reduce the barriers for obtaining an operator's license for community networks along with reducing fees, and the bureaucratic and administrative bar. Transparency and access to information on the location of towers, fibre, access points, and spectrum usage will make it easier to plan and deploy networks. Access to spectrum is also a key enabler.

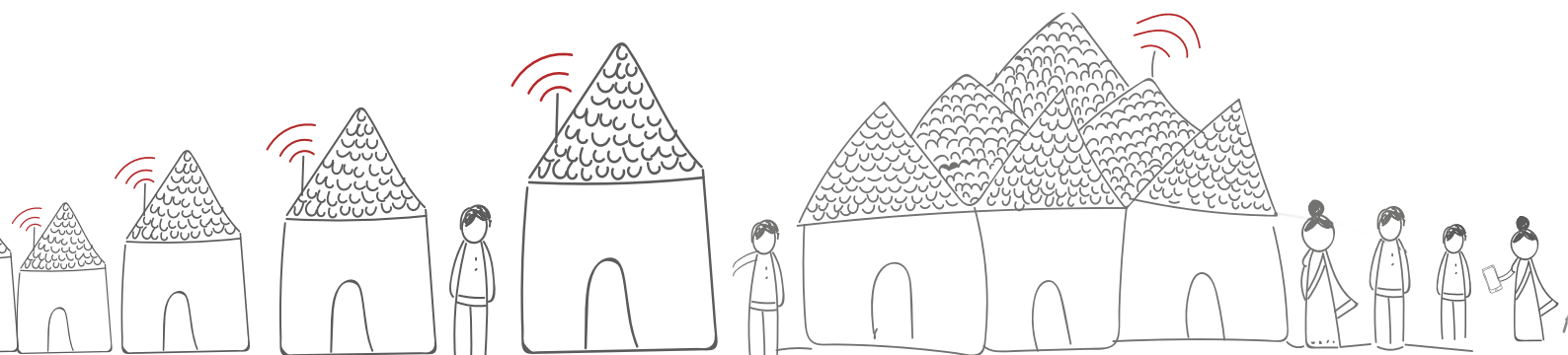
It is about working 'with' communities, not working 'on' communities. Initiatives need to be community based and community paced with people who understand the community and the local context, including local cultures and norms. Effective partnerships are those that take into account the needs of the community.

Gender sensitivity should be an integral part of deploying community networks. This extends to how and where people can access the network as well as who is part of the deployment and operation.

There is a need to leverage synergies within and between communities of practice e.g., community radio operators and community network operators. This includes sharing experiences and knowledge.

Ongoing capacity building is important to ensure community network operators are able to continually improve their technical skills and benefit from best practices. Similarly, the community should also be provided with ongoing digital literacy training so that they are able to better understand what being online means including being able to deal with misinformation and other online threats.

Community networks are successful and sustainable when the local community can see the value of digital connectivity and the opportunities it provides. Just connecting a community is not enough - there should be a focus on what the community can do with access to the Internet and how it can help improve local socio-economic conditions.



ACKNOWLEDGEMENT

CNX APAC 2020 took place over 6 days, with over 40 panelists from 23 countries joining us online. The event was hosted by Digital Empowerment Foundation (DEF) and the Internet Society (ISOC) with support from the Association for Progressive Communications (APC), Alliance for Affordable Internet (A4AI), and APNIC Foundation.

We are grateful to our partners for their support in the lead-up to, and during, the conference. Our panellists joined us from across continents, with some making special arrangements to connect at odd hours for their time zones. Their participation enriched the discussions and added nuanced perspectives. We would like to express our gratitude to each one of them.

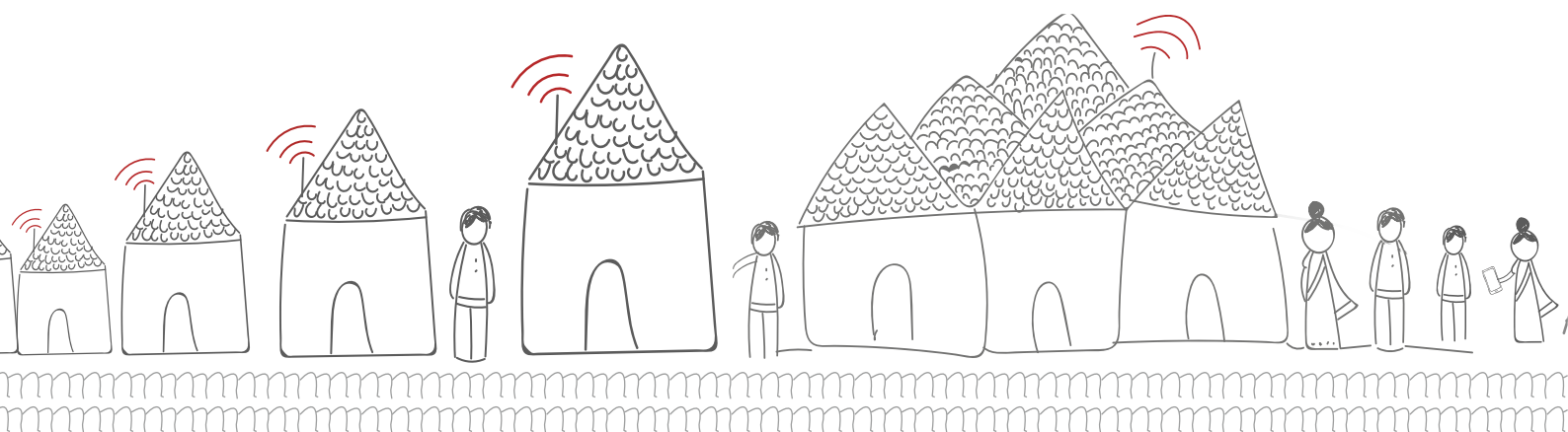
We would also like to thank all the community network practitioners who sent us their case studies and videos which were showcased throughout the event. These made our sessions richer and helped provide diverse narratives and experiences from various contexts.

We would also like to thank Joly MacFie from the Internet Society New York Chapter for assisting the organising team with live-streaming the sessions across various digital platforms and for providing technical assistance. We are grateful to Sarbani Belur for being the session host for the Summit Roundtable. Finally, we would like to thank Ritu Srivastava for providing guidance throughout the conference.

We have exciting plans lined up for CNX 2021, and we look forward to seeing all our community network partners, organisers, and well-wishers joining us then!

Rajnish Singh
Co-Convener

Osama Manzar
Co-Convener



VOICES FROM THE COMMUNITY

CNX 2020 saw a new segment called "Voices from the Community" which showcased short videos from different regions where community networks are deployed. These videos highlighted the impact stories, experiences, and local contexts that should be considered in the deployment of community networks. The following is a list of videos and case stories that were showcased throughout the six days. Watch them [here](#).

Open Freenet, Geo Informatics, Madurai, India: Senthil Kumar explains the objective behind setting up this community network, which was to cater for the community in an underserved rural area of South India. He also explains why this was also not just about providing Internet but it was also about being innovative in how to serve the needs of the community. Watch it [here](#).

Myanmar Centre for Responsible Business, Myanmar: Svetlana Zens highlights the impact of Internet Shutdowns in Myanmar. She shares why community networks are important in such areas. Watch it [here](#).

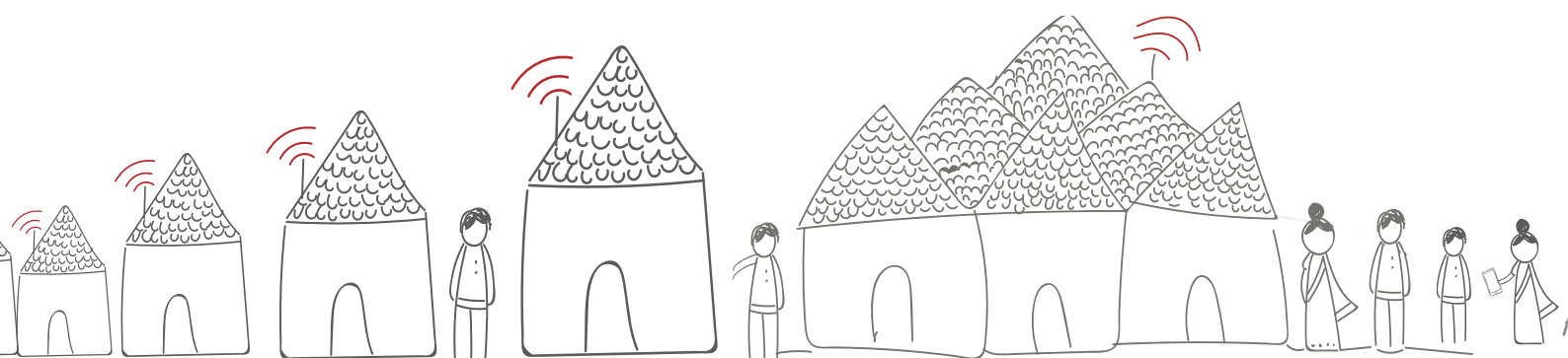
ASERCOM (Alternative Solution for Rural Communities) remote and rural Myanmar: Michael Suantak explains how ASERCOM is building community networks as a connectivity strategy across rural and remote parts of Myanmar. Watch it [here](#).

Zero Connect, Digital Empowerment Foundation, India: Zero Connect is a project of Digital Empowerment Foundation's Wireless for Communities (W4C) project, in partnership with the Internet Society (ISOC), and supported by Agariya Heetrakshak Manch, to bring broadband Internet Connectivity to the far-flung areas of the Little Rann of Kutch in Gujarat. It helps give a digital voice to the socially and economically marginalised salt farming Agariya Community who live in the area. Watch it [here](#).

Wireless for Communities, Internet Society, Pakistan: W4C Pakistan is an initiative of the Internet Society, Asia-Pacific Office in partnership with COMSATS Internet services (CIS) that utilises low-cost Wi-Fi based technology to connect and empower rural and underserved communities in Multan, Pakistan. Watch it [here](#).

Internet Governance Watch Project, Nepal: Ananda Gautam from Internet Governance Watch Project talks about the effects of the pandemic lockdown in Nepal and how it led to a stagnation of learning in schools for six months. He also talks about the work his organisation has done to address this problem. Watch it [here](#).

Wejxia Network (Wind's Net): A Network Connecting Cauca with the World: In this video, Dana Beltrán talks about the initiative that seeks to connect indigenous communities, farmers and former FARC-EP combatants of Caldono and Silvia with the world using the Internet and global communications network as a tool of empowerment. Watch it [here](#).



In Conversation with Erzhibit Imamov from ISOC Kyrgyzstan Chapter: In this video, Erzhibit Imamov, technical engineer of ISOC Kyrgyzstan, talks about the technology used to build community networks in the village of Suusamyr. Watch it [here](#).

eDost Initiative, BAIF, India: This video describes the initiative of eDost by BAIF in Pathardi village of Jawhar block of Palghar district in Maharashtra, India. Anjali Vazare, fondly called Anjali Tai, the first eDost offers various digital financial services to the village community such as cash withdrawal, money transfer, mobile recharge, DTH recharge, bill payments and balance enquiry. Watch it [here](#).

Village Base Station Project, Philippines: Claire Barela explains how the Village Base Station Project has connected rural fishing and farming communities in the Philippines to cellular networks. Watch it [here](#).

Baran: Residents of Jungle go WiFi, India: This video shows how the tribal communities of Baran district gained access to the Internet. It shows the impact on their ability to access information and how technology helps their daily lives and improves their livelihoods. Watch it [here](#).

Last Mile Connectivity, Nichlagarh, India: This video shows the impact of Internet access in a remote village in Rajasthan and how the community was able to improve their lives. Watch it [here](#).

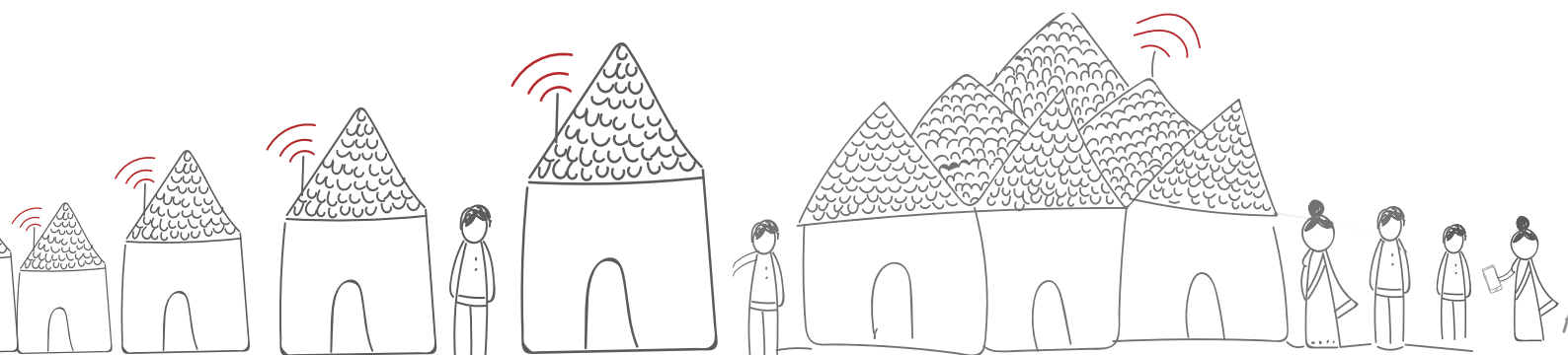
Baank-e-loom: Digital Cluster of Barabanki Weavers, India: This video shows how the introduction of ICTs and digital technologies have positively impacted an artisan community of traditional weavers and helped improve their socio-economic conditions. Watch it [here](#).

Chanderi Film: This video shows how Internet connectivity and the use of digital technologies have helped transform a traditional weaving community, including helping digitise their design prints which have existed for hundreds of years. Watch it [here](#).

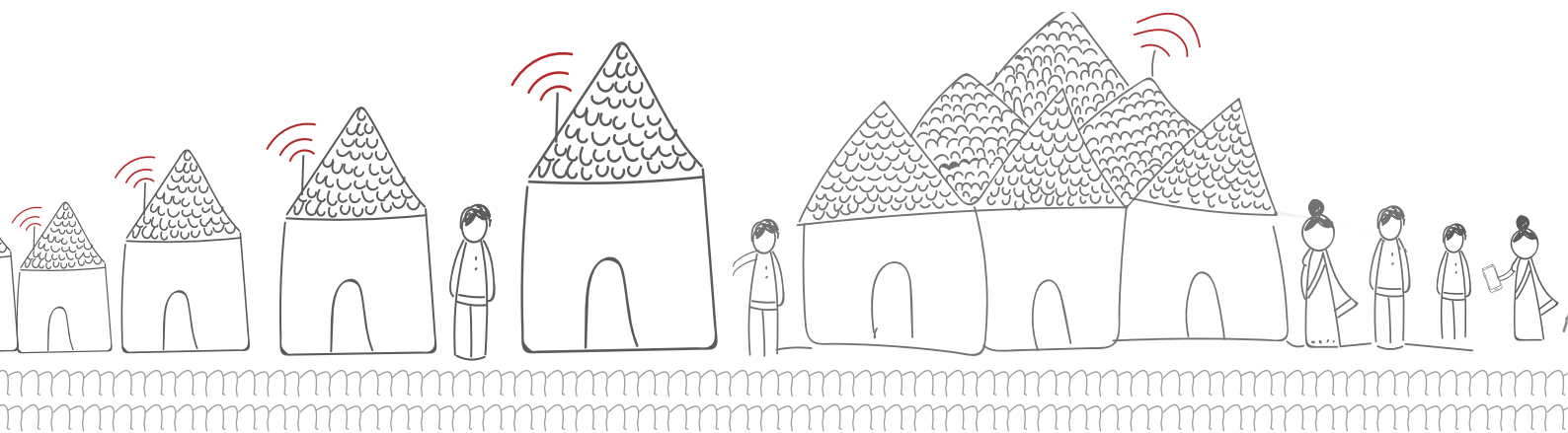
I Love to Study & Play, India: This video showcases the importance of access to the Internet for rural communities and how it impacts children in particular. Watch it [here](#).

Access is my Right, India: Access is my Right is a short film about life in Guna, Madhya Pradesh, one of the most backward districts in India. Many living in this area suffer from non-availability of information and access to any kind of media. This is a story about life in these unconnected areas and how it all changes once wireless networks are established. Watch it [here](#).

Visit to Barefoot College, India: This video captures the visit of the Internet Society CEO to the self-sustaining community at Barefoot College in Tilonia, Rajasthan where a community network had recently been deployed. It shows how the Internet is being used in various ways to help educate and empower the community. Watch it [here](#).



Wireless for Unconnected, India: This video showcases how the establishment of a community network has been able to help a tribal community in Sittlingi, South India deal with the effects of the COVID-19 pandemic including connecting the local school and hospital. Watch it [here](#).



SPEAKERS AND MODERATORS

Achia Nila (Bangladesh): Achia is Founder and CEO of Women in Digital (WIDBD), a Social Enterprise that has created programmers to help women advance by providing access to a Digital Platform.

Ananda Gautam (Nepal): Ananda is a very active youth from Nepal working in the field of Internet Governance around Asia Pacific. He is very passionate about community networks for access and empowerment, data-driven policymaking and emerging technologies like AI. He is also an Internet Society Youth Ambassador for IGF 2020 and founder of the Internet Governance Watch Project.

Anju Mangal (Fiji): Anju is A4AI's Asia-Pacific Regional Coordinator. Her work focuses on strengthening A4AI national coalitions and supporting stakeholder collaboration to advance affordable access across the region. Anju is passionate about Women and ICT and Cyber Safety for women and girls. She is a founding member of the Pacific Women and ICT group.

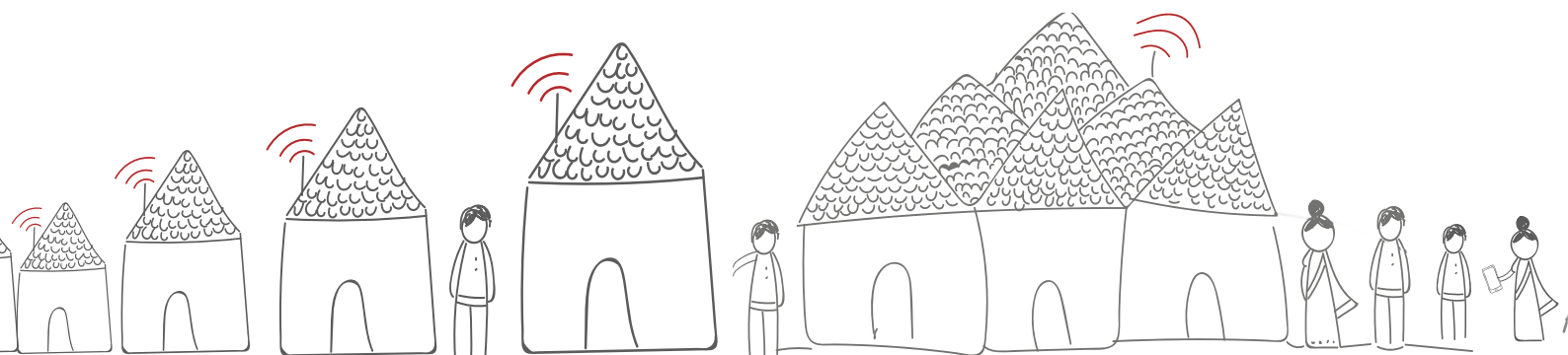
Atsuko Okuda (Thailand): Atsuko is the Regional Director, International Telecommunication Union (ITU), Regional Office for Asia and the Pacific based in Bangkok. Previously, she was the Chief of the ICT and Development Section of the ICT and Disaster Risk Reduction Division of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) where she promoted the development of regional broadband connectivity and inclusive broadband through the implementation of the Asia-Pacific Information Superhighway (AP-IS) initiative.

Bazlur Rahman (Bangladesh): CEO and Founder of Bangladesh NGOs Network for Radio and Communication (BNNRC). BNNRC represents the community electronic media sector to Government, Industry, Regulatory Bodies, Media, Academia and Development Partners.

Carlos Rey-Moreno (Spain): Carlos is a telecommunications engineer with a background in development studies. He has been involved in rural connectivity projects in underserved areas for more than ten years. He is Co-lead for Local Networks, Policy and Strategy at the Association for Progressive Communications (APC).

Emani Lui (New Zealand): Emani Lui is the owner of MakaNet, the first Pacific owned Internet Service Provider in New Zealand. He is a tech entrepreneur with roots in the Pacific where he co-founded and developed the first Free WiFi country (Niue) in the world in the late 1990s.

Gustaff Harriman Iskandar (Indonesia): Gustaff graduated in 1999 from Fine Arts Department, Bandung Institute of Technology. He ran Poros Art Management and actively wrote, organised and participated in visual art exhibitions. In 2001, he co-founded Bandung Center for New Media Arts together with Reina Wulansari, R. E. Hartanto and T. Reza Ismail, and is strongly engaged with the development of media art & multidisciplinary artistic practice in Indonesia.



Heru Tjatur (Indonesia): Heru is a self-learned IT Professional, who started with Web Development consulting. He is particularly interested in Internet Business Process and Web Interactivity & User Experience. He is a farmer-in-training.

Jane Coffin (United States): Jane is Senior Vice President, Internet Growth, Internet Society. She is responsible for the Internet Society's Internet Growth project teams which are focused on Community Networks, Internet Exchange Points (IXPs) & interconnection, peering, and community development, and a new project on measuring the health of the Internet.

John Dada (Nigeria): John is the Director and Founder of Fantsuam Foundation. Under his watch, Fantsuam Foundation has done groundbreaking work in growing Nigeria's rural knowledge economy, and this is having significant impact in BayanLoco, Kafanchan and the surrounding villages.

John Jack (Vanuatu): John is the Deputy Chief Information Officer at OGCIO, Vanuatu Government. He has been involved in the policy and regulatory space for many years as well as inter-governmental and regional ICT initiatives.

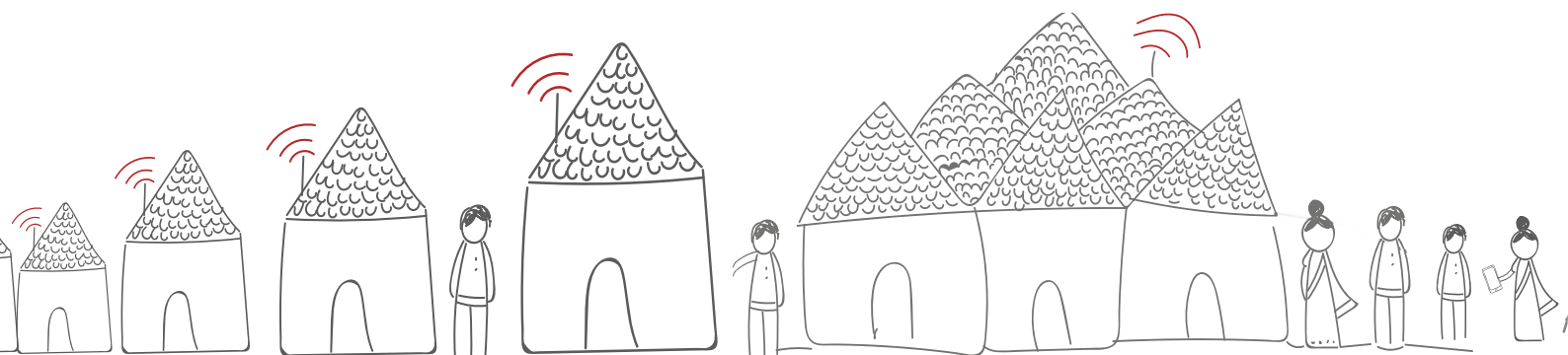
Laila Ndagire (Uganda): Developmental journalist, producer and presenter who uses the power of the microphone to positively impact people's lives. Works at MAMA FM, a Community Radio Station in Uganda.

Leandro Navarro (Spain): Leandro has a PhD in telecommunications and works as associate professor at UPC.EDU. He serves as co-chair of the Internet Research Task Force (IRTF) working group GAIA: Global Access to the Internet for All, and as Chair of the Board of Directors member of the Association for Progressive Communications.

Lisa Garcia (Philippines): Lisa Garcia is the Executive Director of the Foundation for Media Alternatives, or FMA, an NGO that advances human rights perspectives in policy advocacy around the Internet, it's governance, communities and resources in the Philippines.

Mahabir Pun (Nepal): Mahabir Pun is a Nepalese teacher, social entrepreneur and an activist known for his extensive work in applying wireless technologies to develop remote areas of the Himalayas, also known as the Nepal Wireless Networking Project. He is a widely known figure in Nepal, and his work has been recognised by the Ashoka Foundation, the Ramon Magsaysay Foundation, University of Nebraska, and Global Ideas Bank. He led the initiative to register a non-profit named "Rashtriya Abiskar Kendra" in 2012, widely termed as National Innovation Centre.

Mark Buell (United States): Mark Buell is the Regional Vice-President, North America at the Internet Society. In this role, Mark oversees the Internet Society's engagement activities in Canada and the United States. He is also convener of the North American Indigenous Connectivity Summit and works extensively with first nations communities.



Mary Grace Mirandilla-Santos (Philippines): Grace is an independent researcher on telecommunications and information and communications technology (ICT) policy, with a special focus on the Internet's impact on development and society. Since 2005, she's been analysing broadband policy and regulation, competition, and solutions to universal ICT access.

Maureen Hernandez (Venezuela): Maureen is a Systems Engineer, and an enthusiast about spectrum sharing, and efficient spectrum use enabling policies.

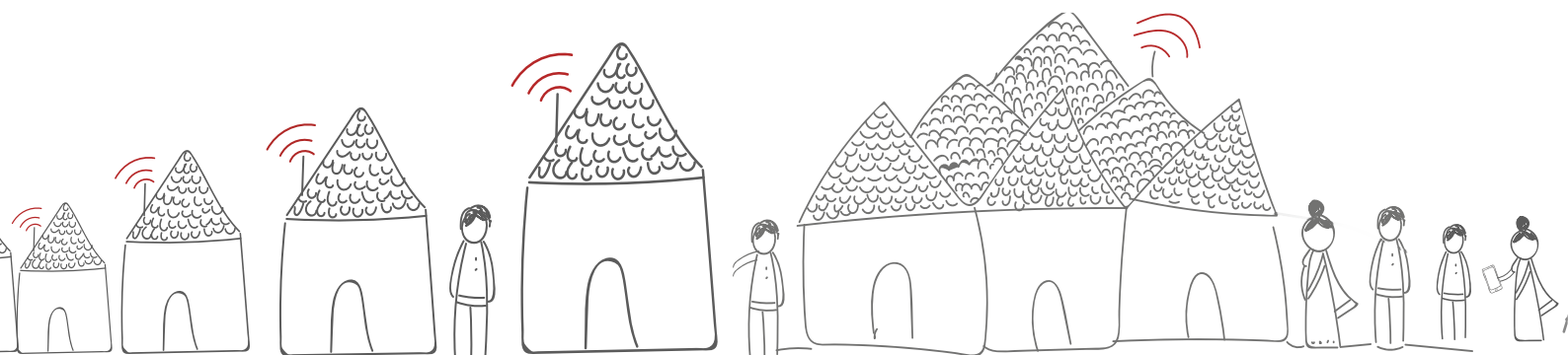
Maureen Hilyard (Cook Islands): Maureen Hilyard is a Development Consultant and has recently worked on policy related to the Environment, the Public Service and ICT. She leads an NGO, the Cook Islands Internet Action Group. She is a former Board Chair of PICISOC; the current Chair of the At-Large Advisory Committee of ICANN; the Chair of the Board of Directors of DotAsia; the co-Chair of the Global IGF Dynamic Coalition of Small Island Developing States in the Internet Economy; and is a member of the Public Interest Registry Advisory Council. While her background is Education, she also has a Bachelor of Business and a Master of Management.

Michael Suantak (Myanmar): Michael Suantak (Pum Suan Hang) is a civic-minded social innovator and entrepreneur in Myanmar. He is the founder of ASORCOM and one of the Myanmar 'digital Tarzans' from the jungles of Chin State, located in the northwest of Myanmar close to India and Bangladesh. His primary initiative was building a community wireless network as an alternative communication platform, connecting more than 20 jungle villages over the hills in Chin State, where there are no proper roads or Internet and mobile coverage. Before that, he was one of the founding members of the Burma Information Technology (BIT) team in 2002 and organisational manager in New Delhi, India.

Nasir Hashmi (India): Nasir is a Community Network Implementor and is passionate about helping connect rural and underserved communities in India.

Naveed Haq (Pakistan): Naveed is the Regional Director for Infrastructure and Connectivity at the Internet Society, leading technical, policy and advocacy work in Internet access, infrastructure and community development domains. He is an experienced ICT practitioner, with more than 17 years of experience working with governments, telecommunication operators, development partners, service providers, and civil society organisations.

Onno W. Purbo (Indonesia): Onno W. Purbo is Indonesia's Internet Liberator. Onno W. Purbo, a copy left, open source believer, educator and ICT evangelist, holds a Ph.D in Electrical Engineering from University of Waterloo, Canada. He has published 50+ books, including Free ICT eBooks for high schools in 2008. He led the first Internet connection at Institute of Technology in Bandung, from 1993 to 2000, and used it to build the first Indonesian educational network.



Osama Manzar (India): Osama is Founder and Director of Digital Empowerment Foundation. He is a social entrepreneur, author, columnist, impact speaker, angel investor and mentor. He sits on several government and policy committees in India and on international organisations, working in the areas of Internet, access, and digital inclusion.

Peter Bloom (Mexico): Since 2009 Peter has been coordinating Rhizomatica, an organisation he started to promote new communication technologies and that helped start the first community owned and managed cell phone network in the Americas in 2013. Peter is both an Ashoka and Shuttleworth Foundation fellow since 2014.

Ramprasad Venkatesha (India): Ramprasad is a development pursuer working on ICT initiatives at BAIF Development Research Foundation (BAIF).

Rajnish Singh (Australia): Rajnish is Regional Vice President for the Asia-Pacific at the Internet Society. In this role he works with a broad range of stakeholders including governments, civil society, academia, the private sector, the technical community and influencers in the Asia-Pacific region to promote technologies, policies, and best practices to keep the Internet open, globally connected, secure and trusted for the benefit of people all across the world.

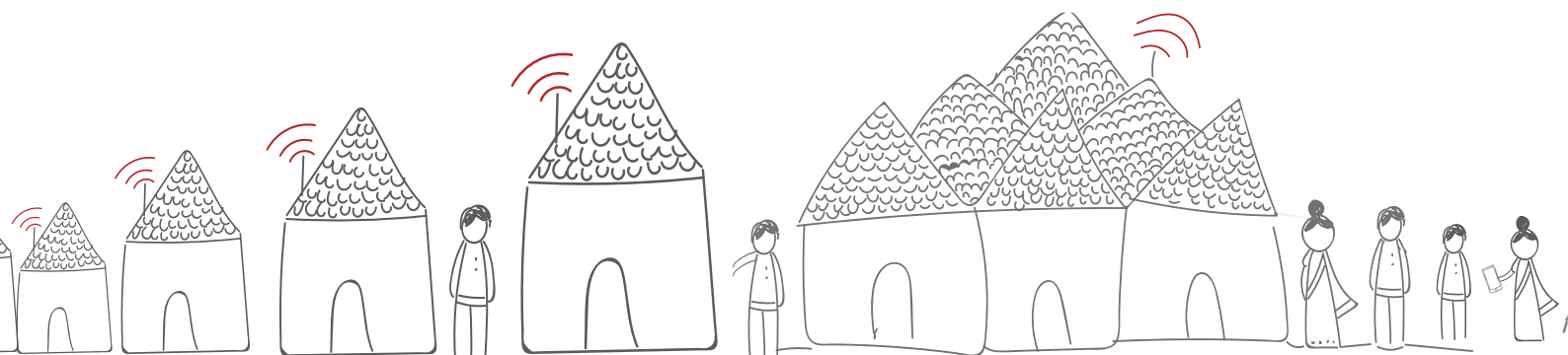
Ritu Srivastava (India): Ritu is Chair, IEEE Working Group - Internet Grades of service in Rural areas (India). She has over 10 years of rich professional experience in ICT development, managing programmes and projects at different stakeholder levels of competency. Her area of interest, activity and research is in Information Communication and Technology (ICT) at the grassroots level, Internet governance, environmental issues, community development and open spectrum policy issues.

Sarah Farooqui (India): Sarah manages Research and Advocacy at Digital Empowerment Foundation. She has previously worked in policy think tanks, NGOs, and news publications, and has written extensively on policy, politics, and society. She holds a Master of Public Policy from University of Oxford, where she was a Chevening Scholar, and an honours degree in Literature from St Stephen's College, Delhi University.

Sarbani Belur (India): Sarbani is the Asia-regional coordinator, for APC'S community networks project, a senior research scientist, IIT Bombay, and Spoken Tutorial project, IIT Bombay.

Senthil Kumar M (India): Senthilkumar is the Co-founder and CEO Geomeo Informatics. He has a great passion for innovating through technology to solve real-life problems. He worked in fields like wireless network, defence, maternal healthcare, and safety solutions and filed nearly 10 patents for the same.

Shalini A (India): Shalini is associated with a number of community activities working as part of the Janastu and Servalots core team. She handles team issues, organisational reporting needs, and the systems and server admin tasks, and maintains and manages free software



repositories and web software systems such as Wikis and WordPress on dedicated Linux Docker servers.

Svetlana Zens (Myanmar): Svetlana joined Myanmar Centre for Responsible Business (MCRB) as Senior Digital Rights Programme Associate. She focuses on digital rights and public sector relations and serves as the lead for the Centre's agenda in cyber policy and ICT management, with a particular interest in privacy and data protection.

Sylvia Cadena (Australia): Sylvia is Head of Programs at APNIC Foundation. She has 20+ years of experience across Latin America and the Asia-Pacific on how Internet technologies can support social and economic development.

Talant Sultanov (Kyrgyzstan): Talant is co-founder of the Internet Society-Kyrgyz Chapter. Previously he served as an advisor to the Office of the Prime Minister of the Kyrgyz Republic, where he coordinated the work of the national digital transformation programme Taza Koom. Prior to that, he worked as the director of the National Institute for Strategic Studies, a think tank where he advocated for economic development policies based on human capital, technologies, and innovation.

Teddy Woodhouse (United Kingdom): Teddy is the research manager for access and affordability at the Web Foundation and focuses his time on the Alliance for Affordable Internet's research program.

Udita Chaturvedi (India): Udita is a Development and Communications professional in the non-profit sector, with interest and skills in communication & media strategising, storytelling, research & writing, and visual documentation. She is Team Lead - Knowledge Communication & Dissemination at Dasra.

Venu Arora (India): Co-Founder and Director of Ideosync Media Combine, an India based non-profit working on Communications for social change.

Waqas Hassan (Pakistan): Waqas is the President of Internet Society Pakistan Islamabad Chapter. He is an active volunteer for the Internet community in Pakistan, mainly in the field of public policy, capacity building, advocacy and stakeholder engagement.

Yumna Panday (South Africa): Yumna is the project Support Coordinator at Zenzeleni Community Network.

