



Community Networks

A briefing for libraries (ver. April 2020)

Key points:

- 1) Community networks are local community-led initiatives to build and maintain a telecommunications infrastructure. The users jointly manage the network.
- 2) Community networks present a possible alternative to relying on commercial service providers or state programs to provide connectivity in commercially non-profitable areas.
- 3) Community networks can offer an innovative way for libraries to help their communities get online.
- 4) Libraries can help community network projects in several ways – from sharing their internet subscriptions or electricity to taking on leading roles in planning, organizing, or negotiating with third parties on behalf of a community network.

WHAT ARE COMMUNITY NETWORKS?

Community networks are local community-led initiatives to govern and operate a network infrastructure for digital communication. They are built on the principle of open commons: the users of the network own and manage it cooperatively, contributing and pooling their time and resources.¹

While community networks can take many forms, the broad practice involves a local community - both individual community members as well as local organisations - pooling their resources and building a connectivity infrastructure, whether through wireless or wired connections. The network is collectively maintained by the same group of actors and can be expanded to allow more people to join.

Establishing a community network allows the local community to benefit from and make use of connectivity – to stay in touch and communicate, to do business, learn, and more. Some community network projects focus on building an internal network which provides local services and allows community members to connect among each other; other community networks give residents access to mobile telephony. Many community networks provide access to the open internet - often by distributing connectivity from one point to many others in a community.² Deploying such networks is a way for communities to take their connectivity needs into their own hands – and can help tackle existing digital divides.

WHY COMMUNITY NETWORKS?

In many cases, community networks are built to address connectivity needs in places that the market or government efforts have yet to reach. These can be rural and remote areas with low population density, or informal urban settlements – places where establishing a connectivity infrastructure is not profitable for traditional telecoms service providers, or where the costs of such services are disproportionately high.

In other cases, community networks are built in areas with existing commercial networks as an affordable alternative to traditional service providers. Community networks could also serve as

¹ Based on community network definitions in "[Community Networks: the Internet by the People, for the People](#)" (UN IGF Dynamic Coalition on Community Connectivity, 2017) and "[Unleashing Community Networks: Innovative Licensing Approaches](#)" (Internet Society, 2018).

² An overview of several community networks and their functions is available in a study by Micholia et al, 2018 "[Community Networks and Sustainability: A Survey of Perceptions, Practices, and Proposed Solutions](#)".



autonomous or semi-autonomous backup systems in case there are disruptions in the available commercial networks.

Such networks represent a fundamentally different approach to connectivity, where communities have the ownership and control over their own connectivity infrastructure. They have the potential to become a viable alternative to traditional service providers or government support (such as Universal Service Funds or Public Access Points) in order to “connect the next billions”.³

Compared to traditional operators and service providers, community networks offer a number of societal benefits. Those include more control and agency for the local community, lower costs of network operation and ownership, and more flexibility to accommodate local conditions and needs - especially those of traditionally marginalised populations.⁴

Other stakeholders point out the potential of community networks to foster local capacity-building and promote freedom of expression. Aside from their role in “connecting the unconnected”, community networks can offer a solution for growing concerns over internet infrastructure centralisation, as well as net neutrality and privacy.

Perafita, Spain

Due to its location, Perafita Public Library was well-positioned to install antennas for the central node of the community network in the village.

Aside from the network infrastructure, the library played an important role in the development of the project by hosting workshops and meetings and offering to share its internet connection.

WHY ARE COMMUNITY NETWORKS IMPORTANT FOR LIBRARIES?

Internet access is a crucial means for libraries to offer public access to information and knowledge in the digital age. Usually this means offering on-site internet access, but some libraries are beginning to consider other ways to provide connectivity for their patrons. Community networks can offer a fundamentally new way for libraries to help their communities get online.

Seattle, USA

From its establishment in 1994, the Seattle Community Network has collaborated with the Seattle Public Library.

The library was able to share some of its dial-up internet access and offered office space for the project. It also helped raise awareness about the community network project by distributing brochures in all its terminals.

In addition, such projects usually involve capacity building, training, and awareness-raising initiatives - which libraries can support. As the [netCommons research project](#) puts it, “events destined to promote learning and community building should be put in motion since the very beginning of a [community network] initiative”.⁵ Since one of the broader objectives of libraries is to facilitate learning and empower people in their communities, such activities align with their broader societal missions.

Meanwhile, libraries without internet access in areas with low network penetration can benefit from being connected to a community network. This would enable them to expand their collections and range of services; and provide access to information for their communities on a new scale - for example, subscription access to online journals or digital educational materials or platforms.

³ This potential is highlighted by the Internet Society, for instance in the 2017 policy brief “[Spectrum Approaches for Community Networks](#)”.

⁴ These benefits are outlined in the 2019 publication by the Association for Progressive Communications, “[Bottom-up Connectivity Strategies: Community-led Small-scale Telecommunication Infrastructure Networks in the Global South](#)”.

⁵ “[Multi-Disciplinary Methodology for Applications Design for CNS, including Design Guidelines and Adoption Facilitation](#)”, NetCommons, 2018 .

HOW CAN LIBRARIES HELP?

In turn, community networks can benefit from library involvement. One of the key lessons learnt from recent practices of community network building is that partnering with existing anchor institutions is crucial for the success of such projects.⁶ Libraries are particularly well-positioned to offer their help and support such projects with resources, expertise or legitimacy.

Libraries can help overcome some of the common obstacles which many community network projects face. They can bring a number of valuable resources and capacities to the table. For example, one of the first challenges for such projects is raising awareness among enough community members for an initiative to gain traction.⁷ In the early stages of a project, libraries could promote the potential value of community networks and help residents find and access information on how to build them.

At the stage of developing the network, libraries can serve as spaces for gathering, coordination and deliberation, or hosting workshops. A social space for decision-making is crucial for community network projects, and such projects often rely on local organisations to provide it.⁹ The environment a library can offer is unique because of its fundamentally open and democratic nature.

They can also provide a location for antennas or to store physical equipment¹⁰, or an electricity supply, which is essential. Where they have this already, libraries' own internet access can also help.

In later stages, the financial sustainability of some types of community networks is also dependent on building a bigger membership better to distribute costs. Libraries can help raise awareness and attract potential new members by communicating with their user base. In addition, as new members go online, libraries are well-positioned to provide digital literacy training to new users who are less confident with their digital skills.

Libraries could also contribute digital materials from their collections by making these available on the community network. These materials would provide valuable local content which, if they are stored on local servers, would be retrievable without needing to access the broader internet. This is important in cases where there are set data limits.

Finally, libraries can assist community network projects in their negotiations with external actors. The netCommons project specifically names libraries as one of the institutions best-positioned to lend their credibility to community network projects and help them face "legal risks and uncertainties regarding [their] exact meaning and purpose".¹¹ Help can range from securing grants for initial network setup, to negotiating subscription prices with internet providers, to acquiring licenses for antennae installation or spectrum use.

Akwapim North District and neighbouring regions, Ghana

A non-governmental organisation "Community-Based Libraries and Information Technology (CBLit)" is leading a project which brings wireless connectivity to key anchor institutions in the area.

In addition to internet access, the project has created local digital libraries and equipped community libraries with computers with internet access to help students browse the web and carry out research.⁸

⁶ For instance, this recommendation is included in both the "[Spectrum Approaches for Community Networks](#)" policy brief by the Internet Society (2017) and "[The Community Network Manual – How to Build the Internet Yourself](#)" (UN IGF Dynamic Coalition on Community Connectivity, 2018).

⁷ This challenge is pointed out in the 2018 Global Information Society Watch, "[Community Networks](#)".

⁸ More information about the Wireless Ghana Project can be found in the [country chapter](#) of the 2018 Global Information Society Watch publication on community networks.

⁹ As discussed in "[Best Practices Guide for Community Networks](#)", netCommons, 2019.

¹⁰ One example of a library offering this kind of support is given in the [IFLA 2018 Trend Report Update](#).

¹¹ "[Community Networks and Political Advocacy](#)", netCommons, 2018.



Six ways for libraries to get involved in community network projects:

- Raise awareness and help community network projects connect to potential members
- Offer support and ICT skills training to new Community Network and Internet users
- Establish and broaden access to library's digital assets. Where possible, contribute digital materials and local content for the community network itself.
- Lend office space, store infrastructure, share electricity or internet bandwidth (if possible)
- Serve as meeting spaces for gathering and deliberation for community network projects; get engaged in or host capacity-building exercises
- Support community network projects in their contacts with external actors: municipalities, internet service providers, donors, etc.