
An IGF2016 report: notes and links around community networking

Leandro Navarro, Affiliations: UPC, APC, GAIA WG ISOC, Pangea. (It was a quick write, I'm sorry for all my mistakes)

Community Networks have emerged at IGF as “the other” way to develop connectivity. Terms such as empowering the unconnected, connecting the unconnected, connecting the next billion(s) floated around. The discussion was on many aspects such as policy, regulation, human rights, economics, sustainability, governance, participation, infrastructure, access, technology, software, spectrum.

The IGF

The Internet Governance Forum 2016 (igf2016.mx/) was this year in Guadalajara, Mexico, on December 5-9 2016. There were lots of events: pre-events, post-events, lots of conferences, workshops, booths, tents, side-meetings, parties. Most of the events are recorded as transcripts and videos [↗](#) and here [↗](#).

The UN Agenda for Sustainable Development (Sustainable Development Goals or [SDG](#) [↗](#)) identifies information and communication technologies (ICTs) and the Internet as horizontal enablers for development. Paragraph 9c sets an important goal for the international community:

“Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020”.

Community Networks

The expression “crowdsourced computer networks” refers to a network infrastructure built by citizens and organisations who pool their resources and coordinate their efforts to make these networks happen. “Community networks” are a subset of crowdsourced networks that are structured to be open, free, and

neutral^[1] ^[2]. In these communities the infrastructure is established by the participants and is managed as a common resource ^[3].

Community networks have flourished around the world as complementary models for enabling sustainable, locally-driven infrastructures to provide connectivity, access to the Internet and its services.

During the last 12 months, the discussions in last year’s IGF [↗](#) developed into a Dynamic Coalition on Community Connectivity [↗](#) (DC3). IGF2016 was full of direct or indirect references about the lack of infrastructures and lack of access and therefore about community networks.

Relevant sessions

In the opening talks [↗](#) Internet Society President & CEO Kathryn C. Brown mentioned the goal of an Internet everywhere and everyone. That implies a significantly increase of access, universal and affordable access to the Internet, particularly in the least developing countries, and therefore to all. Community networks were mentioned as part of the solution.

On **day 0** [↗](#) we had the following events:

Workshop: *Community Networks: How to Build Connectivity?* [↗](#). A DC3 preparatory session to introduce what community networks are, and the participants, that some of them met for the first time. A draft [↗](#) of the joint declaration was discussed. Summary notes from Digital Watch [↗](#).

Workshop: *Linking connectivity, human rights and development* [↗](#). A broad coalition of member organizations from across Civil Society, public and private sectors, combination of research, advocacy and direct country engagements. The A4AI works with national multistakeholder coalitions to enable affordable equal Internet access for everyone everywhere.

Global Connect, IEEE, ISOC, ITU, UNESCO, WEF, and the World Bank - Advancing Solutions for Connectivity: Improving Global Coordination and Collaboration. A related discussion about coordinating global organizations to provide solutions.

In the evening we had the “Disco-Tech”, an informal event designed to bridge the gap between technical and political solutions to attacks on internet rights and freedoms. The topic for this event, organised by APC, IFEX and ISOC, was “Community Networks: Civil society’s efforts to improve connectivity in local communities”.

On **day 1** we had the following events:

Workshop: *Initiatives connecting the unconnected: where’s the data?*. According to their notes, ICT are cross-cutting enablers of development. In particular, universal access to broad band and mobile services. Goal number 9 in the SDG is about building resilient infrastructures (mentioning explicitly ICT), promote inclusive and sustainability development and foster investment but those are the not only ones. The aim was to contribute to the debate on how to expand Internet access to the unconnected and how to design effective policy based on data to enable access, in particular for those in remote areas, rural areas, and also to bridge the existing gaps and disparities in many countries in the global south.

Workshop: *The right to access the internet in Latin America*. A discussion about Internet as a right, as recognized by several countries, the importance of internet access for individuals and society, the relationship with other rights, obligations of states, role of other stakeholders. Concepts such as Availability, equality, accessibility.

On **day 2** we had the following events:

Dynamic Coalition on Community Connectivity. Report launch, featuring the authors of the papers included in the DC3 Report outcome document. Summary notes from Digital Watch.

DC3 Workshop: *Empowering the Unconnected*. Community networks around the world presented their experiences, results, lessons learned, challenges, around letting the unconnected connect themselves, and letting them build their own connectivity.

Workshop: *Dynamic Coalition on Innovative Approaches to Connecting the Unconnected*. Discussed the importance of increasing the reach of the Internet, increasing the number are of people online, and a plan to collect data from diverse initiatives and enable comparing consistent metrics across all the different projects.

Dynamic Coalition on Public Access in Libraries. Public access to the Internet is an oppor-

tunity for libraries, and several community networks have collaborated with public libraries to facilitate access to the Internet.

On **day 3** we had the following events:

Open Forum: *UNESCO*. A human rights oriented approach, related to a previous conference called “Connecting the dots” where the R.O.A.M. principles were defined: “*Internet Universality points to four fundamental principles that can be summarized in the acronym R.O.A.M.: that the Internet should be (i) human Rights-based (ii) Open, (iii) Accessible to all, and (iv) nurtured by Multi-stakeholder participation.*”

Workshop: *Markets, communities & public policies for access and HR*. About policies, market forces and community efforts for the billion(s) still unconnected, about real access from a human rights perspective. A discussion on evaluating policies in each region, what is missing and to be done, guidance about work to do regarding regulation, policies according to the reality of Internet infrastructures. For instance recommendations from the ITU-D 19 about supporting small non-profit or community operators to provide access to infrastructure and spectrum to provide broadband access in rural and remote areas.

Workshop: *Content Delivery Alternatives: Inter-twining of IXPs and CDDNs*. Interconnection and content are key parts of affordable and efficient local and global connectivity and access to content. IXP commonly are local cooperative organizations to facilitate interconnection among local ISPs in a region and attract content reducing transit costs and providing shorter and less expensive network paths between end points.

On **day 4** we had the following events:

Best Practice Forum on *Policy Options for Connecting the Next Billion* and a working document. This ongoing (intersessional) initiative looks at local and regional aspects and how ensuring meaningful Internet access contributes to reaching the new SDGs.

Workshop: *Public Wi-Fi/Open access models in developing countries*. A discussion of whether open access/public Wi-Fi models are an effective new form of providing access. It examined various public, private and public private interplay models being deployed to provide public access, success factors, considering also the policy and regulatory environment.

We attended one post-IGF event: the “*Community networking workshop*” in the University of Guadalajara Library, with APC as co-host with ISOC. The workshop was kindly facilitated by

Steve Song and focused on the outcomes of the IGF. The main topics were a) Structural (sustainability, organization, business, governance, models, funding), b) Regulation (Spectrum, backhaul access, peering, licensing, etc.), c) Knowledge sharing and training, and d) DC3 growth and future (alliances/partnerships, meta-organizations).

Some of the outcomes

A few of the many outcomes that resulted from that intense week in Guadalajara:

- Document on Community Connectivity, including a draft of a declaration [↗](#)
- Book: Community Connectivity: Building the Internet from Scratch. [↗](#) [2]
- IGF2016 final reports from GIP Digital Watch [↗](#) and from the Forum chair [↗](#).
- An updated list of research papers [↗](#) about community networking.
- Lots of excitement, ideas to discuss, knowledge and experience to share, opportunities for collaboration, and many plans to develop.

Thanks a lot to all the participants, supporters, contributors for an extremely intense, exciting, productive and exhausting week. I would not like to miss anyone, all count a lot!

Related

The summary notes by the Geneva Internet Platform (GIP) talks about "The rise of community networks [↗](#)" with the main issues identified across all IGF being *access* and *digital divide*.

The "Inside the Information Society" blog by D. Souter warns about two concerns "*The ITU's Development Index [↗](#), which measures access, use and skills, suggested that Least Developed Countries may be losing ground. The World Bank's World Development Report [↗](#) – the most comprehensive survey of evidence on ICTs' impact on development to date – warned about increasing inequality and overoptimism where projects and programmes are concerned.*"

Marcelo from Instituto Ben Estar Brasil compiled this list of related IGF2016 videos [↗](#).

Future events

- January 26-27, Cambridge (UK), GAIA Community Networks: Sustainability & Regulation Workshop [↗](#).
- May 16-18, Stockholm Internet Forum [↗](#) #SIF17 "Access and Power".
- May 9-11, Cape Town, Dynamic Spectrum Alliance [↗](#).
- May 22-26, Iguazu, LACNIC [↗](#).
- June 12-16, Geneva, WSIS Forum [↗](#): Information and Knowledge Societies for SDGs.
- June 6-7, Tallin, EuroDIG [↗](#).
- June 12, 2017, Stockholm, Interdisciplinary workshop on DIY & community networking [↗](#).
- October 9-20, Buenos Aires, (ITU World Telecommunication Development Conference [↗](#)).
- December 18-21, Geneva, IGF2017 [↗](#).

References

- [1] Roger Baig et al. "guifi.net, a crowdsourced network infrastructure held in common". In: *Computer Networks* 90 (2015), pp. 150–165. DOI: 10.1016/j.comnet.2015.07.009 [↗](#). URL: <http://people.ac.upc.edu/leandro/pubs/crowds-guifi-en.pdf>.
- [2] Luca Belli, ed. *Community Connectivity: Building the Internet from Scratch. Annual Report of the UN IGF Dynamic Coalition on Community Connectivity*. FGV, 2016. ISBN: 9788563265753. URL: http://internet-governance.fgv.br/sites/internet-governance.fgv.br/files/publicacoes/community_connectivity_-_building_the_internet_from_scratch_0.pdf.
- [3] Elinor Ostrom. *Governing the commons: the evolution of institutions for collective action*. Cambridge University Press, Nov. 1990. ISBN: 0521405998. URL: <http://www.cambridge.org/us/academic/subjects/politics-international-relations/political-economy/governing-commons-evolution-institutions-collective-action>.

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I will be TAing a course on Networking next semester, and my goal is to be able to complement each topic with some cool demonstration. This subreddit invites redditors from all around the globe to discuss enterprise networking. Political posts tend to attract the wrong crowd and overly aggressive vocalization. Topics that may affect one locale does not contribute enterprise networking discussions. Rule #7: No Political Posts. a community for 11 years. message the moderators. MODERATORS. Calling all network operators: we need your feedback on the IGF 2016 " Best Practice Forum on "Understanding the commercial and economic incentives behind a successful IPv6 deployment" document before it is presented at the upcoming Internet Governance Forum (IGF) in Guadalajara, Mexico, from 6 to 9 December 2016. It's not just operational communities who are encouraging IPv6 deployment. These discussions, centered around the Best Practices Forum (BPF) on IPv6, give us the opportunity to reach groups beyond the technical community and understand their views and needs, including business decision makers and policy makers. This year's BPF on IPv6 will focus on the economic incentives and commercial drivers behind the decision to adopt IPv6. Why CRO-IGF? In 1991 the Croatian Academic and Research Network (CARNet) was established and the year later it was connected to the Internet. It was the only Croatian Internet connection to the world at that time. CRO-IGF annual event was possible due to the positive attitude and the efforts of all organisations represented in the Organising Committee of the CRO-IGF. Thanks to all. Special thanks for the CRO-IGF 2016 also go to the Information Commissioner, Ombudsman for Children and Ministry of the Interior. The Croatian multi-stakeholder community can be contacted directly through the following e-mail address: cro-igf@carnet.hr More information on the CRO-IGF 2016 can also be requested from zdravko.jukic@hakom.hr Zagreb, June 13th, 2016.