## 2. Consume the Net: The Internationalization of an Idea

Fig. 11. The Sky Above Berlin: Freifunk in action.

This chapter starts out with a summary of the achievements of Consume.net, London, and then traces the development of this idea, how it was spread, picked up, transformed by communities in Germany, Denmark and Austria. The internationalization of the free network project also saw significant innovations and contributions, developing a richer and more sustainable version of the network commons through groups such as Freifunk.

In London, Consume had developed a model for wireless community networks. According to this idea, a wireless community network could be built by linking individual nodes which would together create a mesh network. Each node would be owned and maintained locally, in a decentralized manner, by either a person, family, group or small organization. They would configure their nodes in such a way that they would link up with other nodes and carry data indiscriminately from where it came and where it goes. Some of those nodes would also have an internet connection and share it with everybody else on the wireless network. Technically, this would be achieved by using ad-hoc mesh network routing protocols, but those were not yet a very mature technology. Socially, the growth of the network would be organized through workshops, supported by tools such as mailinglists, wikis and a node database, a website where node owners could enter their node together with some additional information, which was then shown on a map. Within the space of two years, this proposition had become a remarkable success.

Consume nodes and networks popped up all over the UK. Consume had made it into mainstream media such as the newspaper The Guardian.[[1]](#footnote-1) The project also successfully tied into the discourse on furthering access to broadband in Britain. The New Labour government of Tony Blair was, rhetorically at least, promising to roll out broadband to all as quickly as possible. This was encountering problems, especially in the countryside. The incumbent, British Telecom, claimed that in smaller villages it needed evidence that there was enough demand before it made the local telecom exchange ADSL-ready. ADSL is a technology that allows using standard copper telephone wire to achieve higher transmission rates. The Access to Broadband Campaign ABC occasionally joined forces with Consume. The government could not dismiss this as anarchist hackers from the big city. These are *good* business people from rural areas who needed internet to run their businesses and BT was not helping them. Consume initiator James Stevens and supporters traveled up and down the country, doing workshops, advocating, talking to the media and local initiatives.

### 2.1 BerLon

In 2002 the opportunity arose to bring Consume to Berlin. Although living in London, I had been working as co-editor in chief for the online magazine Telepolis for many years, so I knew the German scene quite well. After quitting Telepolis in spring 2002, I traveled to Berlin to renew my contacts. The curator of the conference Urban Drift, Francesca Ferguson, asked me to organize a panel on DIY wireless and the city. This gave me the opportunity to bring James Stevens and Simon Worthington to Berlin, as well as nomadic net artist Shu Lea Cheang.

The idea emerged, to combine our appearance at Urban Drift with a workshop that should bring together wireless free network enthusiasts from London and Berlin. Taking inspiration from Robert Adrian X’s early art and telecommunication projects, we called this workshop BerLon, uniting the names Berlin and London. Robert Adrian X had connected Wien (Vienna, Austria) and Vancouver, Canada through four projects between 1979 and 1983, calling them WienCouver.[[2]](#footnote-2)

Our organizational partner in Berlin was Bootlab, a shared workspace in Berlin Mitte, where a lot of people had a desk who were interested in unconventional ideas using new technologies. Some Bootlab’ers were running small commercial businesses but most of them constituted the critical backbone of Berlin’s network culture scene. Bootlab was a greenhouse for new ideas, a little bit like Backspace had been in the late 1990s in London. Our hosts at Bootlab were Diana McCarthy, who did the bulk of organizational work, and Pit Schultz, who had, together with Dutch network philosopher Geert Lovink, invented the notion of net-critique and initiated the influential mailinglist nettime.

A little bit of additional money for travel support from Heinrich Böll Foundation, the research and culture foundation of the German Green Party, enabled us to fly over some more networkers from London, such as electronics wizard Alexei Blinov and free2air.org pioneer Adam Burns. And as is often the case with such projects, it developed a dynamics of its own. Julian Priest came from Denmark, where he lived at the time, and brought along Thomas Krag and Sebastian Büttrich from Wire.less.dk. Last not least, there were people from Berlin who had already experimented with wireless networking technology, among them Jürgen Neumann, Corinna *Elektra* Aichele and Sven Wagner, aka cven (c-base Sven).

The rest is history, so to speak. I would be hard pressed to recall in detail what happened. Luckily, the Austrian radio journalist Thomas Thaler was there. His report for Matrix, the network culture magazine of Austrian public radio ORF Ö1 gives the impression that it was a bit chaotic, really. There was no agenda, no time-table, no speakers list. Sometimes somebody grabbed the microphone and said a few words. As Thaler wrote, ‘London was clearly in the leading role’ in what will have to be accounted for under *informal exchange*. Most things happened in working groups.

One group was discussing the networking situation in Berlin. There had already been initiatives to create community networks in Berlin, one called Prenzelnet, another one Wlanfhain (Wlan Friedrichshain). As an after effect of re-unification of Germany, there were areas in the eastern side of Berlin that had OPLAN, an optical fibre network, which made it impossible to use ADSL. What also needs to be accounted for is the special housing structure of Berlin.

As an after effect of Berlin having been an enclave of Western *freedom* first, then having a wild East right in its center of occupied houses and culture centers in Berlin Mitte and neighboring areas, a relatively large number of people live in collective housing projects. These are not small individual houses but large apartment blocks, collectively owned. Freifunk initiator Jürgen Neumann lives in such a housing project which was affected by the OPLAN problem, so that 35 people shared an expensive ISDN connection. After learning about WLAN, he built a wireless bridge to an ISP for his housing association and spread it around the block. Other people who were already experimenting with wireless networks before BerLon were cven and Elektra.

Another working group dealt with the question of how to define the wireless networking equivalent to the licensing model of Free Software, the GNU General Public License (GPL). From Berlin, Florian Cramer, an expert on Free Software topics, joined this discussion. This issue about a licensing model for Free Networks caused us quite some headache at BerLon, and we did not really finalize a solution there, but managed to circle in on the subject enough to finish the draft Pico Peering Agreement at the next meeting in Copenhagen.

At BerLon, Krag and Büttrich also reported about their engagements in Africa. There, well-meaning initiatives trying to work with Free and Open Source technology often meet socially difficult and geographically rugged environments.

I cannot claim to know in detail what happened in the other working group, the one on networking in Berlin, but the result is there for everyone to see. This was the moment of the inception of Freifunk, the German version of wireless community networking. Freifunk (which, in a word-by-word translation means simply *free radio transmission*) is today one of the most active wireless community networking initiatives in the world. Ironically, while today Consume is defunct, Freifunk became a fantastic success story. With German *Vorsprung durch Technik*, Freifunk volunteers managed to contribute significantly to the praxis of wireless community networks. In particular, the Freifunk Distribution and the adoption and improvement of mesh networking technology contributed significantly to inter-networking technology. Freifunk’s existence, vibrant and fast growing in the year 2014, is testimony also to the social viability of the Consume idea.

However, I am not claiming that Freifunk simply carried out what Consume had conceived. This would be a much too passive transmission model. Freifunk, just like Guifi, contributed significant innovations of its own. I am also not claiming that Freifunk jumped out of the BerLon meeting like the genie out of the bottle. A number of significant steps were necessary. However, it is also undeniably the case that BerLon provided the contact zone between Berlin and London. This set into motion a process which would eventually lead to a large and successful community network movement.

Jürgen Neumann and a few other people from Berlin decided to hold a weekly meeting, WaveLöten (wave soldering), every Wednesday at c-base starting at 23 October 2002, which was very soon after BerLon. WaveLöten was an important ignition for Freifunk in Berlin. As Neumann said, the lucky situation was that there was a group of people who understood the technical and social complexity of this and each started to contribute to the shared project of the network commons – Bruno Randolf, Elektra, cven (c-base Sven), Sven Ola Tücke, and others on the technical side, Monic Meisel, Jürgen Neumann, Ingo Rau, and Iris Rabener on the organizational and communicative side.

What are the reasons that Freifunk could thrive in Berlin and Germany, while Consume lost its dynamic in the UK? The answer is not simple, so I am just pointing at this question here. Which will pop up throughout this book. What makes a wireless community network sustainable? Why do some communities thrive and grow while others fall asleep?

### 2.2 Copenhagen Interpolation and the Pico Peering Agreement

BerLon was followed, on March 1st and 2nd 2003, by the Copenhagen Interpolation. On this occasion the Pico Peering Agreement was brought to a satisfactory level. I am happy, because I contributed to writing it, and as this story has developed since, it has found some implementation. The Denmark meeting was also quite small. There were people from Locustworld, the Wire.Danes, Malcolm Matson, and Jürgen Neumann, Ingo Rau, and Iris Rabener from Berlin. They decided in Copenhagen to hold the first Freifunk Summer Convention in Berlin in September 2003.

At BerLon we had discussed the social dimensions of free networking. What were the *social protocols* of free networking? The answer was to be given by the Pico Peering Agreement, a kind of Bill of Rights for wireless community networking.

It had all begun with discussions on how to improve the NodeDB. James Stevens expressed his desire that a node owner could choose a freely configurable license – to create a bespoke legal agreement on the fly for his network on the basis of a kind of licensing kit. The node owner should be able to choose from a set of templates to make it known to the public what their node offered at which conditions. This work should be done with the help of lawyers so that node owners could protect themselves. This seemed a good idea but was way to complicated for what our group was able to fathom at the time. We needed something much simpler, something that expressed the Free Network idea in a nutshell.

The success of Free Software is often attributed to the *legal hack*, the GPL. This is a software license which explicitly allows to run, copy, use, and modify the software, as long as the modified version is again put under the GPL. This *viral model* is understood to have underpinned the success of Free Software. Today, I am not so sure anymore if this is really the main reason why Free Software succeeded.

Maybe there were many other reasons, such as that there was a need for it, that people supported it with voluntary labor, or that the development model behind Free Software, the co-operative method, simply resulted in better software than the closed model of proprietary software with its top-down hierarchical command system. Anyway, we thought that Free Networks needed an equivalent to the GPL in order to grow. But how to define such an equivalent?

With software, there is one definitive advantage: once the first copy exists, the cost of making additional copies and disseminating them through the Net is very low. Free Networks are an entirely different affair: they need hardware which costs money. This hardware is not just used indoors but also outdoors and is exposed to weather and other environmental influences. Free Networks can not really be free as in gratis. They need constant maintenance and they incur not inconsiderable cost.

The crib to get there was the sailing boat analogy. If there are too many sailing boats at a marina, so that not all of them can berth at the pier, boats are berthed next to each other. If you want to get to a boat that is further away from the pier, you necessarily have to step over other boats. It has become customary that it is allowed to walk over other boats in front of the mast. You do not pass at the back, where the more private areas of the boat are – with the entrance to the cabins and the steering wheel – but in front of the mast. In networking terms that would be the public, non-guarded area of a local network, also known as the demilitarized zone (DMZ).

We agreed that it was conditional for participation in a free network that every node owner should accept to pass on data destined for other nodes without filtering or discriminating. We can claim that we defined what today is called network neutrality as centerpiece of the Copenhagen Interpolation of the Pico Peering Agreement.[[3]](#footnote-3)

While it is important, and I am happy to have contributed to it, I see things slightly differently today. I think the real key to Free Networks is the understanding of the network as commons. The freedom in a network cannot be guaranteed by any license but only by the shared understanding of the network commons. The license, however, is an important additional device.

1. Jack Schofield, Wi-Fi can bring broadband for all, The Guardian, 20 June 2002, http://www.theguardian.com/technology/2002/jun/20/news.onlinesupplement. [↑](#footnote-ref-1)
2. WienCouver, http://kunstradio.at/HISTORY/TCOM/WC/wc-index.html. [↑](#footnote-ref-2)
3. Pico Peering Agreement, http://www.picopeer.net/. [↑](#footnote-ref-3)