EXPANDING
THE RIGHT
TO COMMUNICATE

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An activist's guide to Internet access

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Glossary of Terms

Backbone   means a large cable that can support a lot of traffic within a network.

Bandwidth   means how much data (bits) you can send through a connection.

Bit   the smallest unit of data. A Kilobit is 1000 Bits, a Megabit is 1,000 Kilobits, and a Gigabit is 1,000 Megabits.

Convergence   (which means 'coming together') is the idea that many types of service (voice, data, video, text) are now being carried over one network (i.e. the internet).

Digital Divide   refers to inequality based on who has access to information and communication technologies (ICT), including the internet

Digital Dividend   refers to extra radio frequency spectrum made available when television signals switch from analogue to digital.

Fibre Optic   is a type of cable used in high-speed internet connections.

Fibre-to-the-home (FTTH)   a general term used when the last mile connection is made of optical fibre, often made from glass.

Icasa   South Africa's telecommunications regulator.

Information and Communication Technologies (ICTs)   technologies such as computers and mobile devices that facilitate the sharing of information and communication.

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Last Mile Connection	the connection that ends at the user.
Mobile Broadband	cellular technologies that support high data transfer rates such as 3G, 4G and LTE.
Profiteering	trying to make unfair or excessive profits
Radio Frequency Spectrum	the section of the airwaves used for telecommunications frequencies.
Upload/ Download Speed	the measurement of how fast your connection is.
Voice Over IP (VOIP)	various technologies used make 'telephone' calls over the internet, such as Skype.
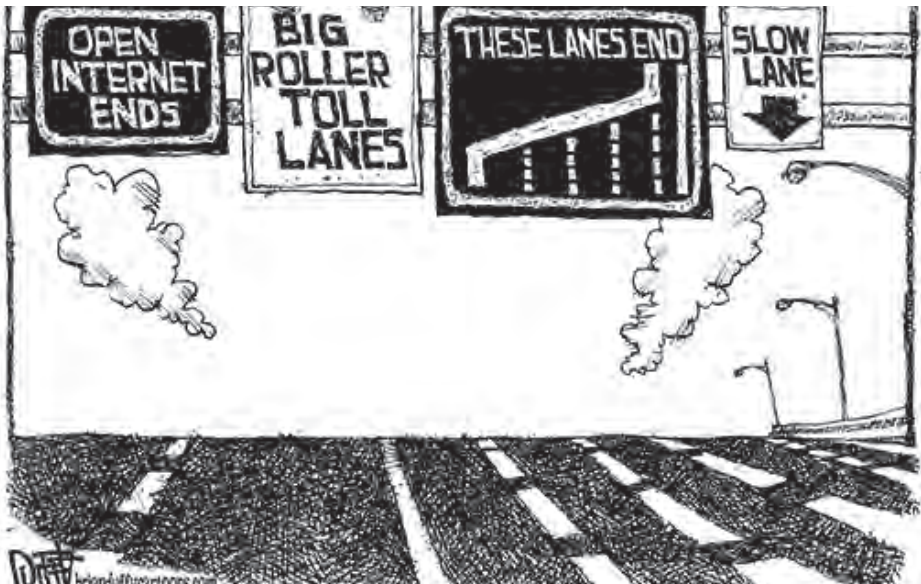
Introduction: Why an Activist Guide to Broadband and Data?

For the past two years, the Right2Know Campaign has been building a public campaign for more democratic access to telecommunications.

We are doing this to **strengthen the right to communicate**: every person in South Africa must be able to **access and share information** and practice their **freedom of expression**.

But the high cost of communication in South Africa means that the majority of people are often robbed of those rights.

Why are costs so high? The telecommunications industry has always put profits before people. The government and the communications regulator (Icasa) have failed to stop the profiteering of the major telecoms providers (MTN, Vodacom, Cell C and Telkom Mobile).

What is the Internet and why is it Important?

The internet is a global *network of networks* – meaning, it is a collection of interconnected telecommunications networks that allow for the transmission of data between various devices (computer, phone, tablet, etc.). The internet has been massively transformative as it has created new forms of social interactions, activities and organising. The internet has also supported the free flow of information worldwide and the speed and ease at which communities and individuals communicate with each other.

This is why R2K has mobilised ordinary people to stand up for the right to communicate. We demand change in the telecommunications industry and the bodies that regulate it.

In 2013, R2K published the *Activist Guide to the Right to Communicate*, which focused on the history of the telecommunications industry in South Africa, the high cost of calls and SMS and the need for action to bring down the cost of communication. Over the past year, the cost of voice communication has gone down, but most South Africans still struggle to express their basic right to communicate. Also, the telecommunications environment is changing so quickly, with the ever-expanding use of the internet in South Africa, that the cost of communication should include the cost of internet as well as cost of airtime and SMS.

We believe the right to communicate must be redefined to include the right to access the internet via mobile data or fixed lines. This updated activist guide to the right to communicate will cover some of the basic issues with internet access in South Africa and will champion the right to communicate **for all**!

The Internet is a Basic Right

Access to the internet is a basic right for everyone, not simply a luxury service for rich people. This is not a new concept: a 2011 United Nations report declared that high speed internet is a basic human right.

The South African government has also determined that universal broadband service is a priority moving forward. Other countries around the world have gone even further by actively trying to connect every single citizen to a high-speed internet connection. In Latin America, for example, Uruguay and Venezuela have applied progressive policies that aim to connect every citizen to the internet.

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Although globally the internet has been heavily privatised by multi-national telecommunications providers, it was intended to be a much more open and democratic tool. Many organisations internationally are striving to get the internet back to its original vision, including the Electronic Frontier Foundation, the Association for Progressive Communication and World Wide Web Foundation. The Right2Know Campaign is aligned with many of these organisations, supporting the global movement towards a free, open, neutral and democratic internet. Activists will find in this guide the necessary knowledge and tools to join the movement themselves and connect to the broader struggle. This guide will cover:

- The growth of South Africa's internet infrastructure

- A history of how the internet in South Africa became privatised

- An analysis of how telecommunications providers profiteer from our right to communicate

- How the internet came to be unequally distributed in South Africa and how wealthy communities and businesses now enjoy better access while the poor are left behind

- An overview of the key issues facing the internet in South Africa, including: Digital migration, fibre-to-the-home, spectrum for mobile broadband, the role of the communications regulator, the merging of the telecoms industry, and the high cost of mobile data

We hope that this guide encourages you to speak out against those who undermine your right to communicate and join the movement to transform telecommunications in South Africa.

A Brief History of the Internet in South Africa

In 1990, all of South Africa's telecommunications infrastructure was under monopoly control by the state-owned telecommunications company Telkom. No private or third-party equipment was allowed to connect to the network at this time. But an early group of internet enthusiasts, mostly associated with universities, were using Telkom's infrastructure to set up crude digital bulletin boards and e-mail services. The ad-hoc associations of these early internet users were very communal and no formal regulation existed.

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The overall communications system during apartheid was one that heavily supported the actions of the apartheid state. Telkom's early activity in the growth of the internet in South Africa was criticised for the "gatekeeping, obstructionist mentality inherited from its role as an apartheid-era bureaucracy."[3] So Telkom did not operate in a democratic way from the onsetl, and was quite reluctant in supplying infrastructure for early internet activity. This changed after the 1994 elections when Telkom began to realise the value that the internet added to its operations. In 1996 the companybegan leasing out its monopoly infrastructure to private service providers.

Privatisation of the Internet and Growth of Mobile Broadband

Then in 1997 the government moved to partially privatise Telkom, offering a large stake of the company to foreign investors (SBC in the United States and Telkom Malaysia). This began a trend of aggressive privatisation of the telecommunications industry, and in the coming years the internet service provision market would expand to include private players such as Vodacom, MTN, and Neotel.

In 1993, MTN and Vodacom won the bid to compete with Telkom in the mobile telephony sector. Their licenses were granted in apartheid's dying days and at first they were funded through government support. But the plan was always to liberalise the markets and increase private competition in the telecommunications sector. This did create competition within the sector and increased mobile phone users nationwide, but it also led to a flood of foreign money in the telecommunications market. Fixed-line provider Neotel was also introduced in 2002 as a direct competitor to Telkom's fixed-line services, also funded with public money through Eskom and Transnet. The rest of the shares were sold to private holders, with a majority holder being Tata Communications, a then private Indian communications company.

A Tale of Two Communications Systems

With the selling off of 30% of Telkom to private, foreign capital and the licensing of two major private telecom providers, MTN and Vodacom, the telecommunications space became one of infrastructure growth by the private sector. But the private sector involvement helped to create inequality in the growth of telecommunications in South Africa. Wealthy communities got lots of infrastructure and servies while poor communities continue to struggle to access and afford basic communications.

The prepaid and post-paid pricing structure of telecommunications created a digital apartheid where pre-paid users struggled with barriers to access and post-paid users were more likely to be early adopters of new technology such as broadband internet and mobile data.

Internet Infrastructure and Cost in Poor Communities

Barriers to access for poor communities include both infrastructure and cost. Private telecoms have rapidly grown infrastructure in urban areas, focusing on wealthy suburbs and business parks, while townships and rural communities have been largely left out of the recent growth of telecommunications in South Africa.
 Infrastructure development in the telecommunications space has always 'followed the money'. In countries where the government has taken a passive approach to telecommunications delivery, preferring to let the market be the driving force, the private sector focused on wealthy consumers, in order to make maximum profits. Wealthier populations also have had an easier time adopting mobile data, as mobile data access is easier for those who can afford to have monthly post-paid contracts. Pre-paid data has been massively exploitive, with some users having to pay daily for data that expires if left unused.

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The combination of unequal infrastructure development and the high cost of prepaid data have very much imbedded the digital apartheid in South Africa. The lack of affordable fixed-line infrastructure in poor communities has made it so that most South Africans only access the internet through mobile broadband.

But people who access the internet through mobile data can't use the internet to its full potential. The many barriers to using data (high costs, expiring data, expensive hardware, access to networks, etc.) means that many South Africans struggle with even basic internet use. Meanwhile, wealthy users have access to consistent, high capacity fixed lines and post-paid data plans that means they can enjoy the full benefits of the internet. And of course any new technologies such as fibre optic lines are more likely to benefit the wealthy.

How the other Half Lives: Next Generation Communications in Wealthy Areas

The fibre-to-the-home (FTTH) market is beginning to emerge in South Africa, with incumbent telecoms such as Vodacom and MTN providing FTTH services and new player Vumatel also launching FTTH services. But the discourse around these developing services has always suggested that they will enter wealthy gated communities and business parks first. Sadly, there seems to be an acceptance that this is what must happen. With the focus being on wealthy communities, the question is: when can poor communities expect to receive these services, and will they be affordable? The digital apartheid system looks to continue into the era of FTTH service, unless we come up with an alternative plan to private sector telecommunications is promoted.

The Issues That Will Determine South Africa's Communication Moving Forward

The South African telecommunications sector has been unequal from the start. The history of the internet in South Africa points us to some of the causes of that inequality, but we must also look at some of the issues defining the future of telecommunications in South Africa. This section will look closer at the relationship between the private sector and government and offer new understandings for how to move forward towards a more equitable communications system.

From copper to fibre: how Uruguay's Antel upgraded a nation's telecommunications infrastructure

Antel is Uruguay's state-owned telecommunications company. Its work shows a concerted effort from government to give everyone access to high-speed fibre optic networks. In 1992 there was an attempt to privatise Antel, but a public referendum rejected the privatisation of basic services, including telecommunications. While private telecommunication corporations struggled to get Uruguayans connected, a reinvigorated public sector under the current government has connected 40 percent of citizens to fibre networks, and 57 percent to broadband networks in general. Antel expects all towns with more than 3500 people to be connected by 2015.

The New Department(s) of Communication

Public sector interventions have failed to bridge South Africa's digital apartheid. There are many reasons for this, including poor management at the Ministry of Communications. In 2014, for reasons that were never explained to the public, the Ministry of Telecommunications was split into two. There is now a Ministry of Communications, which is responsible for government propaganda, and a Ministry of Telecommunication and Postal Service, which is currently headed by Dr Siyabonga Cwele (previously Minister of State Security and architect of the Secrecy Bill).

This dysfunction has also led to policy development moving at a snail's pace, such as the ICT Policy Review that began almost two years ago. Despite releasing a framing paper, a Green Paper and most recently a Discussion Paper on ICT policy that included input from civil society and business sectors, government has not provided clear pathways for citizen involvement in the legislative process. While civil society (including Right2Know) has commented on the ICT policy, decisions on policy have been driven by the private sector, leaving little recourse for the public to influence future telecommunications policy. Case studies for progressive communications have always involved an active government taking an interest in connecting the public, and providing substantial support where the private sector lacks consideration (see Uruguayan case study).

Profiteering Continues with Data

Most South Africans access the internet through **mobile broadband networks**. Telecom providers have grown these networks substantially in the last five years and have clearly indicated that this is their future market. However the growth has been poorly regulated, and incredibly unequal. While telecoms have seen their revenues from data shoot up (See Figure 2), the cost to users have not really gone down (see figure 1) and poor areas are adopting access more slowly than wealthy areas.

Figure 1: Cheapest 1GB Basket per Country in US Dollars (USD) and USD Purchasing Power Parity (USD PPP)
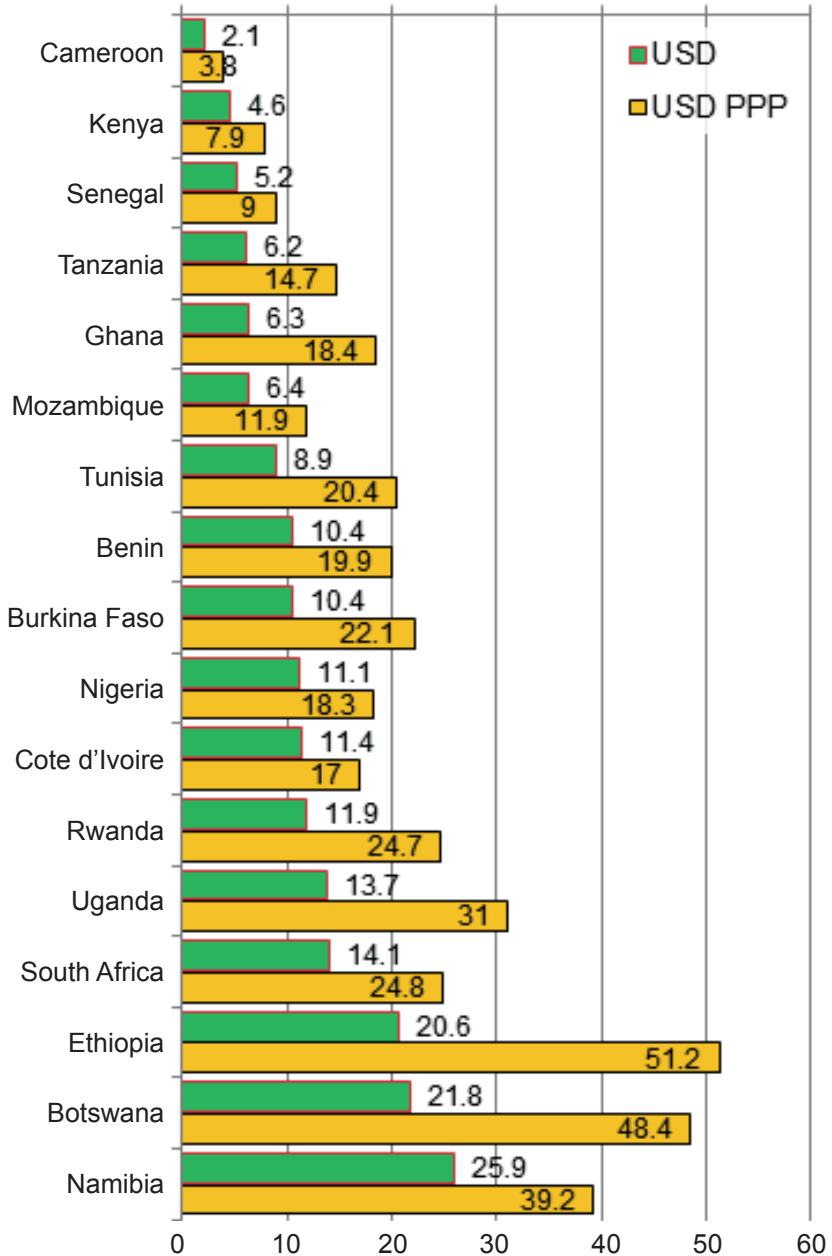
Source: Research ICT Africa

Many prepaid users also experience that their data expires even more quickly than their airtime, putting prepaid users at a much higher disadvantage .

Where is Our Regulator?

There have been huge gaps in regulation in the telecommunications industry. Most notably in 2014, when Icasa tried to introduce new regulations for interconnect fees (the fees telecoms charge each other to carry calls over their networks), MTN and Vodacom took them to court. Even though a version of the regulations eventually passed, the court case exposed a lot of weaknesses in Icasa. This does not bode well for the regulator, as the South African telecoms industry needs strong regulations in several other areas.

What to do with the digital dividend?

One such issue is what to do with the **digital dividend** – meaning the extra spectrum that will be made available for mobile communications once the digital migration in the broadcasting sector occurs. Telecoms argue that more spectrum should be made available for auction to private providers immediately, and proponents of a liberalised telecommunications market agree. But spectrum is like mineral resources – there is a limited supply. To auction all available spectrum to private companies would be a massive mistake. Other countries have taken a different approach to spectrum management, with joint ownership between the public, private and civil society sectors. Icasa will need to be thoughtful and consider progressive approaches to spectrum management. If they are not forward thinking, this precious resource will end up in the hands of private telecoms that will just extract profit from it.

Diversity and Competition in Telecoms Sector

Another threat to a more equal telecommunications space is that there are a number of mergers on the horizon between different telecoms. There are currently two mergers awaiting approval from Icasa: Vodacom's acquisition of Neotel, and MTN's merger with Afrihost. These two potential mergers could have a big impact important because they would further consolidate the telecommunications market as well as the ownership of infrastructure.

How does this affect ordinary users? While Vodacom and MTN have largely been involved in the wireless delivery of voice and internet services, Neotel and Afrihost have acquired lots of fibre optic infrastructure. If Vodacom and MTN were to get approval for these mergers, the two biggest mobile service providers would also become huge powers in the fixed-line delivery of internet as well.[1] Given these two telecom giants' history of profiteering and unequal delivery of services, it is likely that they would carry this practice to the future of FTTH delivery, further profiteering from the next generation of communications technology.

Neotel also holds a large supply of spectrum that, if it were to pass to Vodacom, would further tighten Vodacom's already firm grip on the mobile data market.[2] This is one of the key decisions facing Icasa at the moment: should Vodacom be allowed to acquire Neotel's spectrum? It is up to activists to demand a more democratic communications system, and convince the Competition Commission and Icasa that this merger should be stopped..

The Future of Fibre

The future of high-speed internet lies in extending fibre optic services directly to the home. This is known as Fibre-to-the-home (FTTH) delivery. As discussed previously, there is already a large infrastructure of fibre optic lines, mostly owned by Telkom, but other entities such as Dark Fibre Africa also own a substantial amount of this 'backhaul' fibre.

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Spectrum: "Oil of the 21st Century"

Canadian Minister of Industry Tony Clement referred to radio frequency spectrum as the "oil of the 21st Century," evoking the value and limited supply of the airwaves that support telecommunications activity. Unfortunately, the Minister wanted to auction off large chunks of spectrum to private companies, much like oil, leaving the ownership of the commodity to a few wealthy individuals. The first country to auction spectrum was New Zealand in 1990 and others soon followed. The U.S. started selling off spectrum in 1993 with the widespread support of liberal proponents. The reality was that for many governments, this became a way of making money. However, the selling off of spectrum has resulted in little benefit being passed on to the people. Communications activists need to advocate for spectrum to be recognized as a public right to be owned and controlled by the people – not just sold off to the highest bidder.

The next step is to extend these backhaul fibre lines to homes, which would allow for a much higher capacity than current copper DSL lines offered by Telkom. Some service providers have begun to enter the FTTH market; but this is largely limited to wealthy suburbs and business complexes. The challenge is to ensure that FTTH services are developed equitably so that poor and working-class communities are not left out in the cold. If it's left to private companies, this surely will not happen.

The overall challenge remains that mobile broadband and high speed fibre optic connections are not affordable for the vast majority of South Africans, and we cannot expect them to be anytime soon if delivery of these services are left entirely to the private sector.

Let's Debate: Refocusing the Right to Communicate

As communications technology evolves, our campaign for the right to access that communication must also evolve. There is a trend within the telecommunications industry to move all content (voice, broadcasting, text, etc) over data networks. In the case of voice transmission this is know as VOIP (voice over internet protocol). The basic idea is that internet networks will be the common carrier of all content, this is called convergence, which means "coming together". The concept of convergence is important because it can disrupt the current structure of telecommunications and broadcasting industries. It also creates an opportunity for communities to have more power in exercising their right to communication. In order to keep up with the trend of convergence, however, it is important to make sure our demands are up to date. Given the information presented in this guide, suggested demands for activists to build a discussion could be:

- **The demand for universal connection**: Every person has the right to the internet.

- **The demand for community ownership:** New communications systems should be democratically controlled. No individual actor, be they political or corporate, should be the sole decision-maker when it comes to building infrastructure and connecting communities

- **The demand to put an end to profiteering:** Information belongs to the people and should not be bought and sold for the profit of private companies. Information and communication technologies should be seen as a basic service much like water and electricity.

- **The demand to protect privacy:** Your online activity should be protected from corporate and government surveillance. New infrastructure for data and the internet should not be built with spying capabilities.

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- **The demand for participation:** Data and the internet are fundamentally changing the economic and political landscape. These technologies should not be used to block communities from political action or from participation in economic processes. Internet service providers should no longer be able to exclude a particular person or community from participation by refusing to connect them.

Advocating for Alternative Models to Telecommunications

The previous page gave just a few points of advocacy to be discussed by those who wish to see a change in the way that communications technologies are provided in South Africa. We need a rights-based approach to communication and these rights must be articulated in a way that is relevant to the current technology. As activists educate themselves on emerging technologies, they should also educate themselves on how a rights-based framework could be applied to those technologies.

To help support the rights-based framework discussed above, we can look at a few cases where a rights-based approach has been provided. This is discussed in R2K's research on alternative models of telecommunications delivery (download the report at www.r2k.org.za/telecoms-alternatives). This research looks at non-privatised models of providing access to the internet and data.

These models fundamentally change the arrangement of telecommunications provision from one that is entirely governed by private companies to one that offers more possibilities for ordinary people – the users – to help shape and manage telecommunications. Alternative models can be possible in South Africa, but will need to be discussed and championed by communities themselves. Building a right to communicate movement in your community will be a good start to realising an alternative approach.

Campaigning against the High Cost of Data

The Right2Know Campaign has already built a right to communicate platform for the lowering of the cost of voice communication. As discussed above, the convergence of technologies towards the utilisation of data over the internet will mean that this platform must be expanded to include lowering the cost of data. R2K activists must make their voice heard on the high costs of data, whether through continued marches on the private telecom providers, or engagement with the communications regulator.

Taking the Campaign to the Regulator

Complaints can be filed to Icasa on an on-going basis. As a user of any piece of telecommunications technology, if you experience any level of dissatisfaction, you can complain to Icasa by visiting www.icasa.org.za.

We must mobilise to strengthen Icasa and demand that the regulator stand up for our right to communicate. This could include physical marches on Icasa or group complaints filed through Icasa's formal complaint system. These grievances can also be expressed directly to the Ministry of Telecommunications and Postal Service, now that the ICT policy review has been reopened under the new ministry. Comments to the policy review can be submitted to tmooketsi@dtps.gov.za.

Building Alliances for the Right to Communicate

Community alliances and actions towards different areas should also be conducted at a localised level. Many activists work with like-minded movements and organisations for access to basic services such as housing and water, and could explore including a right to communicate component in their actions. For instance, a housing activist may also want to advocate that new homes built should also be outfitted for internet connectivity.

Advocating directly with local government is also a way of building spaces that articulate a rights-based approach to communications. A city has the ability to roll out free Wi-Fi projects and municipal networks. Building movements that advocate for Wi-Fi service in your community or demanding that internet services be freely made available to schools, hospitals, libraries and other community institutions are a practical way of moving communications provision outside of the private space.

Conclusion: Forward to the Right to Communicate, Forward!

It is important to take the next step in the fight for the right to communicate. If activists do not mobilise on these issues, we can expect more of the same when it comes to telecommunications in South Africa: more inequality in access; more unaffordability for the working class; more exploitation of our right to access and exchange information; and more control of telecommunications by a handful of big corporations and political elites.

You can use this activist guide o educate comrades about these important issues facing our right to communicate. But action is just as important as education. The Right2Know Campaign will continue to mobilise support for a more democratic communications system.   To participate in these struggles, contact the Right2Know offices in your province:

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