

HIGH LEVEL POLICY STATEMENT

Alison Gillwald (PhD) Executive director, Research ICT Africa, and Adjunct Professor University of Cape Town.

Research ICT Africa is an African public-interest ICT research ICT policy and regulatory network that has provided technical assistance to African countries, multilateral agencies and development banks for over a decade. It is the only organization collecting comprehensive supply-side and demand-side data that is available in the public domain with national representative surveys underway in many of the African countries represented (and I should add by our Latin American partner network DIRSI and Asian partner network LIRNEasia).

Based on this research I would like to comment on what we see as the central policy challenge as we move from voice into data services and Over the Top platforms, Internet of Things and Artificial Intelligence – that is, that **as we increase ICT access and use so digital inequality is amplified.** Connectivity alone does not reduce information inequality. Even where we have over 90% mobile coverage and even 50% of smart devices, in many countries we cannot rise above 10% or 20% to reach the critical mass required to enjoy networks effects associated with economic growth.

Nor will strategies that target affordability purely from a consumptive perspective work either. The fact is that even if we had effectively regulated, cost-based prices in Africa the vast majority of Africans would still not afford the use the Internet in any sustained and meaningful way. Arbitrary targets and measures based on average communications cost or use plans as a percentage of GNI mask the extreme inequalities behind these averages, especially in many of our countries with some of the highest Gini-coefficients in the world.

Measuring progress in terms of the economic value in growth indicators that mask inequality will also not create the conditions for sustainable development. Nor can public policy have a narrow sectoral focus any longer. Information and communication technologies (ICTs) cut across modern economies and societies. Policy formulation needs to deal with the internet as a general-purpose technology, a cross-sectoral issue, necessary for **effective citizenry** and **economic engagement**. As the backbone of modern economies and societies ICT policy must be formulated within the context of the **entire ICT ecosystem** where the linkages, policy tensions and competing demands can be identified and managed.

So, we need to **shift from narrow technological deterministic conceptions that characterise the digital divide discourse that focus on access and consumption alone, to broader notions of digital inequality.** A **demand-side value of infrastructure development recognises the value generated by information infrastructure as inputs into a wide range of productive processes.** The outputs not only produce **economic** value but **public and social goods** that benefit society. As we have shifted globally from public utility to private provisioning of communications infrastructure we have increasingly ignored these beneficial outputs in our policy, focusing only on **outputs with appropriable returns.** We need to **shift this**

consumptive lens to one that includes production, and from technological deterministic policy approaches to a rights-based understanding of the role of internet if critical resource management is to be transformative.

To redress digital inequality far more attention will need to be paid to **demand stimulation measures**. Even where enabling environments conducive to investment have been created for the extension of networks, the limited demand-side data available in Africa illustrates how **the socially and economically marginalised – particularly those at the intersections of class, gender, race or ethnicity – are unable to harness the Internet to enhance their social and economic wellbeing**. The limited demand-side data available on the continent shows that besides affordability, human development – particularly education and therefore income - are the primary determinants of access, intensity of use, and utility of internet. The development of relevant **local content in local languages and applications**, the enhancement of citizens' e-literacy are all important demand stimulants. But **until fundamental inequalities off-line are addressed they will be replicated and indeed, amplified on-line**.

Although not explicit, these **imperatives underlie the SDGs and inform the imperative of SDG9 ICT target of universal internet access by 2020**. The problem is that to measure this at the global level we are forced to deal with the patchy, outdated, **supply-side data that are unable to measure digital inequality in the predominantly prepaid mobile markets in developing countries**. Further, from a policy point of view, the optimal points of policy intervention are context specific and to be effective need to be located in the political economy of the country. The truth of the matter is that across the Global South we do not know where we stand now, nor can we ascertain if, and when, we will have progressed toward the goals and targets of the SDGs. **What we do know with the high-level supply-side data available is that at the speed with which we are connecting people to the Internet today, we can never meet the 2020 target and the lag will continue to be from Global South, and Africa in particular.**

This reality calls for **innovative policy that understands the need for a new interplay between state and market with new access, service delivery, investments and risk models that leverage community know-how and low cost technology innovations**. It will require even **greater regulatory agility** and insight to manage the tensions between the different policy objectives of competitive efficiency, innovation and consumer welfare, and the safeguarding of public and social value of the Internet.

To get Africa connected will require doing things differently from what we are doing now. We need to explore **alternative policy and regulatory interventions** that do not assume **mature, competitive, effectively regulated markets operating within guaranteed human rights frameworks** – though of course we may continue to aspire to these. Recognizing the constrained institutional endowments and resources generally that exist in African countries, we need **to identify multiple strategies across the ICT ecosystem that will enable Africa to reach the critical mass and intensity of use needed for the network effects associated with broadband expansion**.

What might these include? Consider just two possible game changers. Build **the public statistics that are missing in most African countries to inform an evidence base for policy making**. This cannot be based on narrow, unaudited administrative data, extracted under conditions of extreme information asymmetry from operators by regulators as in the past. In this increasing complex and dynamic environment, it requires leveraging all existing and anticipated data, particularly aggregated, anonymised big data for public policy and planning.

Starting with an **open data framework**, a governance framework for the management of **complementary supply-, demand-side and big data in a transparent and accountable way that is available for individual, collective, public and private use – a traditional public good; non-rivalrous, non-exclusionary needs to be developed**. This would unleash information flows and enable knowledge-building and innovation in many of our countries where national ICT statistics either do not exist – or are held secretly by national statistical offices, regulators and private companies. If **governments recognise the high value of data and data analytics in the information age, they could better direct universal access obligations to provisioning of this data in usable formats by operators**. This would be far better rather than adding to the cost of communications with secondary taxes that are historically poorly administered, and where expended have supported often extremely profitable companies by extending their businesses into so-called uneconomic areas. Funds, if they exist, though they should not necessarily be created for this purpose with their intractable inefficiencies, could also be better used to support low cost access solutions identified in the second area of intervention proposed – spectrum.

The critical resource for internet expansion in Africa in most jurisdictions is locked into technologically determined licenses – even when referred to as technologically neutral – or in ideologically constrained notions of state or national resources rather than public resources. In most of our countries, most of the spectrum is largely unused outside of the main metropolitan areas. In the sharing-economy of the internet era, we are already seeing **voluntary infrastructure sharing by operators**. G5 essentially operates within a spectrum sharing environment with data off loads on to proprietorial and open public Wi-Fi. From a critical resources management perspective, this should be embraced by governments. Enabling secondary spectrum use would enable new dynamic spectrum sharing, which operates at a fraction of the cost of GSM network to be deployed on new business models in the largely unused spectrum in rural areas, which could instantly provide low cost, high quality bandwidth there.

Accepting that large numbers of Africans will not be able to afford to be optimally online even if GSM broadband prices were cost-based, **deploying spectrum to create and extend the Commons** (unlicensed spectrum) would be a key enabler. Extending commercially available public Wi-Fi from elite urban areas, possibly through deploying poorly utilised universal service funds or other public resources to all public spaces, is a way of increasing the intensity of use in urban areas and enhancing network effects that would contribute to more inclusive digital development.

Questions

ICTs have been described as underpinning the realisation of the SDGs. What are the three biggest challenges to getting Africa online?

Do we have the data in Africa and are we using the right indicators to know where we stand and measure the progress of ICTs towards 2030 targets?