Southern African Internet Governance Forum

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Access and Diversity

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1. Introduction: Access and diversity

Access and diversity is one of the themes of the Sixth Annual Meeting of the IGF in Nairobi and has always been a significant theme at IGF meetings. This year the discussion will be focused around internet access as a human right. The main question is "Internet as a basic human right: What challenges and opportunities does this pose for policy makers and the broader internet community?"

Some of the guiding questions for the main/plenary session of the IGF on access and diversity are:

- What are the main technical, commercial and policy obstacles on the ground for achieving universal affordable access to infrastructure (particularly to broadband internet access) in developing countries?

- What are the main current obstacles to access to knowledge and content online?

- What are the regulatory and policy options to address those obstacles to access to both infrastructure and knowledge/content and what are the roles of the policy makers and the broader Internet community on that regard?

- How can access to infrastructure and knowledge in the context of developing countries contribute to a) foster transformation of education, innovation, entrepreneurship; b) fight poverty and promote social and human development?

- How does access to the internet and the regulation of digital content impact on the diversity on the internet, especially on content production in developing countries?

- How can internet governance enable a movement towards a participatory and inclusive internet, taking into consideration the right to access of people with disabilities, multilingualism and the inclusion of the most socially excluded groups?"[2]

Accepted workshops for Nairobi 2011 focus on many things including: connectivity, infrastructure, broadband internet access, "digital citizenship", "citizen empowerment", "e-participation", free and open source software, higher education, youth issues, good practices of accessibility, disability, internet exchange points in developing nations, and "the Future of the Internet and its impact on the world".

2. Access to the internet

2.1. A human rights approach

Access to the internet was described by some in discussion at the last IGF in Vilnius as a human right. Furthermore, in May 2011 a UN Human Rights Council Report described access to the internet including access to infrastructure as integral to the right to freedom of expression:

> "the Internet has become a key means by which individuals can exercise their right to freedom of opinion and expression, as guaranteed by article 19 of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights [...]

> By explicitly providing that everyone has the right to express him or herself through any media, the Special Rapporteur underscores that article 19 of the Universal Declaration of Human Rights and the Covenant was drafted with foresight to include and to accommodate future technological developments through which individuals can exercise their right to freedom of expression. Hence, the framework of international human rights law remains relevant today and equally applicable to new communication technologies such as the Internet.

> The right to freedom of opinion and expression is as much a fundamental right on its own accord as it is an "enabler" of other rights, including economic, social and cultural rights, such as the right to education and the right to take part in cultural life and to enjoy the benefits of scientific progress and its applications, as well as civil and political rights, such as the rights to freedom of association and assembly. Thus, by acting as a catalyst for

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[2] Internet Governance Forum, Draft Programme for the 2011 Meeting, 09 August 2011
intgovforum.org/cms/2011/programmepapers/ProgrammePaper2011.Aug%209.doc

individuals to exercise their right to freedom of opinion and expression, the Internet also facilitates the realization of a range of other human rights."[3]

What is clear is that access and diversity is not just about an issue of access to the internet and access to ICTs but is also about what the internet gives people access to, and how. Access to the internet was described at Vilnius "an indispensable tool to the quality of life for those disadvantaged by poverty, migrant status, disability and gender."[4] Access to the internet is also about access to basic needs like quality of life, as well as about access to government, and government services.

The report to the Human Rights Council, mentioned above defined access to the internet as having two dimensions: access to online content, without any restrictions except in a few limited cases permitted under international human rights law; and the availability of the necessary infrastructure and information communication technologies, such as cables, modems, computers and software, to access the internet in the first place.[5]

2.2. Diversity

Accompanying the issue of access, is the issue of diversity. Diversity includes the diversity of content on the internet, as well as the diversity of internet users. A focus on diversity adds meaning to access as it directs our attention to what content, resources, services and applications people have access to on the internet. Diversity allows us to ask what content is on the internet for our different global communities (be they linguistically, culturally, professionally or interest based) and what content is lacking for certain communities. For what language is there a lack of internet content? How can diversity of content be stimulated on the internet? Access is a supply issue but it is also a demand issue – involving demand for content. Thus diversity of internet users and internet content is also important for addressing the digital divide.

3. Access to the internet in Southern Africa

Access to internet in Africa in particular in Sub-Saharan Africa is on average lower than other regions in the world. In SADC, 11 out of 15 countries have less than 10 internet users per 100 inhabitants. Mauritius is the only country with over 20 internet users per 100 inhabitants. (see Table 1 below).

The description of the accepted session in Nairobi, entitled "Connectivity and Access in Sub-Saharan Africa - Status, Challenges and Opportunities" states:

"The IGF this year takes place in a location where the Digital Divide has been most prominent. However, interesting changes are prevalent in the area of connectivity and

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[3] Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, Frank La Rue, United Nations General Assembly, Human Rights Council, Agenda, 6 May 2011 A/HRC/17/27 item 3. para 20- 22:
www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf

[4] Chairman's Summary (Expanded Version), Fifth Meeting of the IGF, Vilnius, Lithuania, 14-17 September 2010 intgovforum.org/cms/2010/Chairman's.Summary.Expanded.pdf

[5] Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, Frank La Rue, para 3.

access in the Sub-Saharan region, for example, the massive uptake of mobile phone technology, the developments with submarine cable systems, the investments in terrestrial fibre networks. Despite these developments, the uptake of Internet usage is still low compared to other parts of the world."

What are the reasons for this? What obstacles to access are remain, are the barriers economic barriers, linguistic barriers or cultural barriers? Or are they a combination of all of these? What bottlenecks regarding access in Southern Africa can be strategically identified? The Southern African Internet Governance Forum should be an ideal platform to discuss these issues, possibly we can at the SAIGF begin to answer these questions, so as to take forward solutions to Nairobi.

Table 1 Internet Access in SADC (and Kenya) 2010

Indicators per 100 inhabitants	Fixed lines	Mobile phones	Fixed-line internet subscriptions	Internet users	Fixed broadband subscriptions
Angola	1.59	46.69	...	10	0.10
Botswana	6.85	117.76	...	6	0.60
DRC	0.06	17.21	…	0.72	0.01
Lesotho	1.79	32.18	…	3.86	0.02
Madagascar	0.83	39.79		1.7	0.02
Malawi	1.07	20.38	…	2.26	0.03
Mauritius	29.84	91.67	…	24.9	6.3
Mozambique	0.38	30.88	…	4.17	0.06
Namibia	6.66	67.21	…	6.5	0.42
Seychelles	25.48	135.91	...	41	7.26
South Africa	8.43	110.48	...	12.3	1.48
Swaziland	3.71	61.78	…	8.04	0.14
Tanzania	0.39	46.80	1.09	11	0.01
Zambia	0.69	37.80	…	6.74	0.08
Zimbabwe	3.01	59.66	…	11.5	0.26
Kenya (Host country)	1.14	61.63	0.08	20.98	0.01

*Source: International Telecommunication Union ICT Database*

4. The digital divide

The "digital divide" --the divide between those with access to the internet and those without access-- continues to be an important issue. In order to better conceive of the digital divide, we must see it as a cross-cutting access issue. It is an access issue globally, amongst countries (e.g. some countries have higher access levels than others) as well as an access issue within and between regions. There are also national, regional, and local digital divides between those without access living in the same communities. Within the communities with access there is even a "grey divide", which "concerns the senior citizens … whose educational background provide them with very little literacy in dealing with ICTs."[6]

The digital divide is not just a quantitative issue; it relates also to how we use ICTs and the internet, and the different experiences and expectations that different people have of the internet. There is a divide between those who access the internet easily, regularly and with a high degree of familiarity, and those who are still beginning to understand and learn how to use the internet. There is also a digital divide between those accessing the internet with different hardware. Whilst most computers, new or old can render most websites and their audiovisual material, some websites can require a large degree of processing on the client side (the end user's computer), as well as a high degree of software compatibility. As mentioned in in the paper on mobile computing there is a divide in access to applications and functionality between users of the internet on computers and users of the mobile internet. Furthermore, smart phones can access more services and web features than basic internet-enabled "dumb" phones, and internet services and applications are increasingly directed towards smart phones and tablets over older or cheaper internet-enabled phones.

5. Access to infrastructure

At Vilnius it was agreed that access was a matter of network infrastructure, hardware and devices:

SEA-ME-WE3

2000 - Q1

**African Undersea Cables 1999 - 2012**
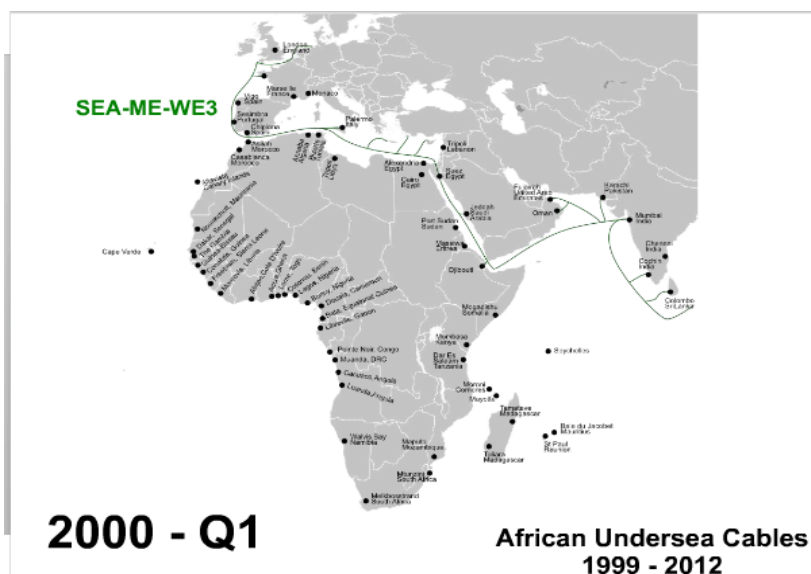
"the need for continued broadband expansion was seen as crucial by several of the speakers. The importance of inexpensive, but powerful wireless handsets and other devices was also listed as a critical ingredient in achieving global access. The tools that would enable hardware and

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[6]Pr Patric Cohendet, The Digital Divide in the European Enlarged Economic Scenario: An Assessment of the Socio-Economic Effects, ESA Report, 2003, telecom.esa.int/telecom/media/document/digdiv220903final.pdf

software developers to develop networks and devices according to universal design principles were also necessary."[7]

There has been considerable increases in bandwidth to the Southern African region, and the continent as a whole in the recent five years through the completion of numerous undersea cables (see diagrams left and below. Credit: Steve Song, manypossibilities.net). A key issue is not just access to the internet, but access to infrastructure, better access of telecommunication companies to infrastructure such that networks can become faster, more integrated and reliable. How can national policy and regulation increase the affordability, quality and reliability of broadband service? Can this be left for telecommunication companies to decide or must there be regulation which ensures interoperability and possible sharing of infrastructures.

TODAY

African Undersea Cables
1999 - 2012
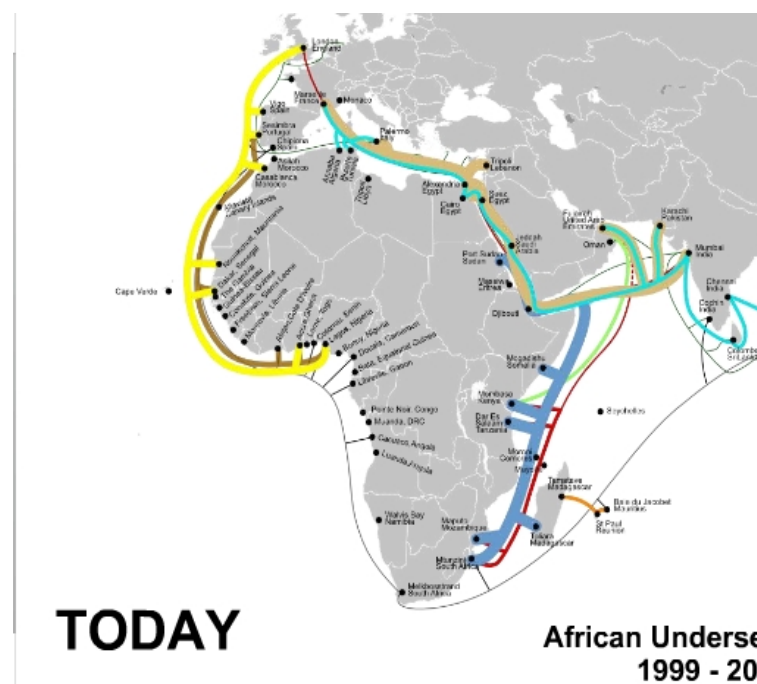
APC noted that key issues of access to infrastructure and knowledge were not addressed at Vilnius and should be taken forward this year at Nairobi. "Spectrum allocation, digital migration and intellectual property are all issues that were conspicuous in their absence (intellectual property was somewhat present, but not sufficiently)."[8]

6. Access to spectrum

Every thirty months the amount of information that can be transmitted over a wireless internet connection has the potential to double. Wireless could be the way to provide affordable broadband to millions of Africans currently living with poor connectivity. However the policy and regulation related to spectrum worldwide is often inefficient, secretive and ill-informed. The rapid growth of wireless and mobile in Asia, Africa and Latin America is raising questions about the use of spectrum and the policies that govern it. Digital broadcasting migration[9] has renewed governments' interest in auctioning off TV "white spaces" spectrum as a revenue-generator.

APC has carried out research to understand spectrum regulation[10] by examining the situation in a number of countries including South Africa. The research looked at how spectrum is assigned, who

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[7] Chairman's Summary (Expanded Version), Fifth Meeting of the IGF, Vilnius, Lithuania

[8] APC's reflections on the Fifth Internet Governance Forum http://www.apc.org/en/node/11513

[9] A useful resource is *Digital migration in West Africa* http://digmig.apc.org

[10] APC research into spectrum allocation to provide an understanding of spectrum regulation by examining the situation in Africa, Asia and Latin America. http://www.apc.org/en/node/10445/

assigns it, and what policy or regulatory frameworks are being used. It also looks at the widely-held belief that there is a scarcity of spectrum[11].

The South African research[12] found that there are more opportunities for freeing up spectrum in South Africa than realised, and that opening up these segments of spectrum could help to make access affordable to all South Africans.

"In South Africa, access to voice and internet technologies that use wireless spectrum is certainly possible. However for many, it is simply not affordable. This means that large segments of South Africa's population cannot readily communicate with the world at large or access information which may be vital to their livelihoods or businesses," reported Steve Song, then telecommunications fellow at the Shuttleworth Foundation.

Song identified lack of competition as one of the main barriers to affordable access and proposed encouraging competition by lowering barriers to market entry is the ideal way to drive down the prices. A second option, regulating prices through an independent regulator, was less ideal he reported because such interventions rarely work as intended.

7. Access to information and knowledge

Access to information and knowledge is a very important access issue of internet governance. Do the principles of access to knowledge and protection of intellectual properties sometimes conflict when it comes to access to knowledge, information and media?

In its statement to the Internet Governance forum in Athens 2006, the World Intellectual Property Organisation (WIPO) argued:

> "Continued and sustainable growth of the Information Society depends upon an environment of trust and security. Intellectual property (IP) plays a key, if complex, role to encourage creativity, innovation, fostering economic growth in both developed and developing countries. To policy-makers and regulators, the challenge today is to preserve the incentive to create new works and use new technologies to distribute them to users in the face of the huge competitive threat from illicit use of technology by infringers."[13]

Others however have a different view of the protection of intellectual property and its relationship to access to knowledge. An emphasis on enforcement of intellectual property laws, without fully appreciating the complexities of the online media environment is not helpful for innovation, and nor is it helpful for countries in developing contexts. APC has conducted research on media piracy in South Africa which:

> "shows that intellectual property laws can represent a significant barrier to access to information and culture especially in poor communities...The debate surrounding intellectual property too often reveals an overwhelming bias towards enforcement —

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[11]http://www.spectrum.ieee.org/telecom/wireless/the-end-of-spectrum-scarcity

[12]*South Africa: Untapped TV spectrum can make internet more affordable, APCNews* http://www.apc.org/en/node/11922 and research report http://www.apc.org/en/node/11961/

[13] Statement of the World Intellectual Property Organisation, Internet Governance Forum, Athens, Greece, October 30 to November 2 2006. http://itu.int/wsis/stocktaking/docs/activities/1174574436/Statement.doc

including the extension of criminal penalties, increasing of police powers, streamlining of the judicial process and increasing surveillance of the internet... A narrow focus on the criminal aspect of the violation of intellectual property to be "increasingly counterproductive for all parties, from developing-country governments, to consumers, to the copyright interests that drive the global enforcement debate."[14]

APC has suggested that there is a need for a more nuanced approach to intellectual property issues. Whilst creators of content have rights that need to be protected, the potential of the internet to increase development through the sharing of knowledge should not be put in detriment through overly stringent laws that favour mostly large corporations over individual content creators. APC adds that "While illegal use of content is not a sustainable alternative, policy makers should focus on keeping the internet open, encouraging its potential for strengthening the information and knowledge commons."

Recent WikiLeaks Cables regarding the Anti Counterfeiting Trade Agreement (ACTA) are alleged to have caused much controversy over the agreement and have possibly further exacerbated divisions around the issue of intellectual property. La Quadrature Du Net, a European advocacy organisation has offered the following analysis:

> "For now it seems that these US diplomatic cables do not bring anything entirely new to our understanding of ACTA. Rather, the details surrounding the history of this dangerous trade agreement reinforce the impression that ACTA is an outdated trade agreement primarily designed to export the war on sharing knowledge and culture to developing countries.
>
> It also makes clear that although ACTA is an international agreement that could have an impact for the decades to come on the global knowledge economy, it has absolutely no democratic legitimacy. Indeed, it was drafted by a small group of unelected officials in charge of promoting the interests of rights holders in their respective countries — not legitimate representatives."[15]

How are we to approach intellectual property at the IGF? Are Africa, Sub-Saharan Africa and the developing world able to reach common positions on intellectual property? How will we balance approaching intellectual property given the co-existing realities that many Africans are rights holders, many Africans face a digital divide with regards to access to knowledge. Many are researchers at African universities with limited access to peer-reviewed academic articles compared to their counterparts in the developing world. How do we balance the aims of access to affordable knowledge and knowledge sharing, knowledge transfer and South-South cooperation with protections of intellectual property and innovation? Are these necessarily conflicting? How do we resolve these conflicting positions?

The WSIS principles do offer some insights as to how to navigate this terrain. The World Summit on the Information Society in the 42nd principle recognises that:

> "Intellectual Property protection is important to encourage innovation and creativity in the Information Society; similarly, the wide dissemination, diffusion, and sharing of knowledge

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[14] Association for Progressive Communications

[15] WikiLeaks cables shine light on ACTA's history, La Quadrature Du Net, 23 Feb 2011, www.laquadrature.net/en/wikileaks-cables-shine-light-on-acta-history

is important to encourage innovation and creativity. Facilitating meaningful participation by all in intellectual property issues and knowledge sharing through full awareness and capacity building is a fundamental part of an inclusive Information Society." […]

"Intellectual Property protection is important to encourage innovation and creativity in the Information Society; similarly, the wide dissemination diffusion, and sharing of knowledge is important to encourage innovation and creativity. Facilitating meaningful participation by all in intellectual property issues and knowledge sharing through full awareness and capacity building is a fundamental part of an inclusive Information Society".

Another option is to adopt different models of knowledge sharing and intellectual property licensing such as the free and open source software (FOSS) model or creative commons licensing in the development of our ICT infrastructure. Africa has in some way contributed to some of the most successful free and open-source software in the world. Ubuntu-Linux was assisted with seed funding and patronage from a South African and became the world's most popular Linux desktop distribution. Ubuntu's name comes from a southern African phrase, "a person is a person through people." A phrase which reflects some of most powerful aspects of the open source movement.

Ushahidi is a true African open source platform, developed by Africa, in Africa, and originally for Africans. Ushahidi is a crisis mapping software of high renown recognised and used by many civil society organisations, as well as international organisations. The open source model does not just apply to computer programming and can also apply to content creation and circulation on the internet and the "crowd-sourcing" of crisis or new information.