INTERNET USE BARRIERS AND USER STRATEGIES:
PERSPECTIVES FROM KENYA, NIGERIA, SOUTH AFRICA AND RWANDA

Mozilla Equal Rating Demo
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CHENAI CHAIR
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Considerations

‣ Unevenness of indicators, reflection of uneven development (self perpetuating, vicious or virtuous cycle).

‣ Assumptions behind global indicators and indices reflect the political economy of mature economies and democracies of the North.

‣ Methodologically flawed, and potentially damaging when sending wrong signals

‣ Very different access and use trajectories in Global South make some standard indicators meaningless and others very difficult to gather.

‣ What are the underlying data sources and how effective are they are performance indicators?

‣ What data do we need and can we get form pre-paid mobile data?

‣ What data (analysis) is required/available for post-instrumental approach to policy and regulation?
OPEN DATA – OPEN GOVERNMENT

PUBLIC STATISTICS FOR EVIDENCE-BASED POLICY

OPEN DATA

– OPEN GOVERNMENT

DIGITISATION, MASS PROCESSING, STORAGE, ANALYTICS FROM LARGE PUBLIC/PRIVATE DATA SETS (PRIVACY/SURVEILLANCE)
- COST REDUCTIONS
- TIME REDUCTIONS - REAL TIME
  - PLANNING
  - EVALUATING

NATIONAL STATISTICAL DATA
(StatsSA)
- MACRO-ECONOMIC/
- CENSUS/LABOUR FORCE/
  HOUSEHOLDS SURVEY
- ICT SATTELITE ACCOUNT

ADMINISTRATIVE DATA
(SUPPLY SIDE/REGULATED)
- DATA FROM OPERATORS, SERVICE PROVIDERS, EQUIPMENT SUPPLIERS
- ICASA/ITU (INDICATOR EXPERT GROUP)
  - DEMAND SIDE
- NATIONALLY REPRESENTATIVE USER SURVEY
  - ZADNA/IDRC
- ITU/UNCTAD PARTNERSHIP ON MEASURING INFORMATION SOCIETY

RESEARCH ANALYSIS - NRF, UNIVERSITIES/THINK TANKS, NATIONAL RESEARCH COUNCILS, PRIVATE COMPANIES/FOUNDATIONS

BRAINSTORMING SESSION ON THE ROLE OF GOVERNMENT IN THE DIGITAL ECONOMY

INTERNATIONAL INTELLIGENCE FOR INNOVATION AND SUSTAINABLE DEVELOPMENT

RESEARCH AND ANALYSIS - NRF, UNIVERSITIES, THINK TANKS, NATIONAL RESEARCH COUNCILS, PRIVATE COMPANIES, FOUNDATIONS
RIA Household, Individual & Informal sector
ICT user survey

- Lack of data - decision relevant data for ICT policy making and regulation

- PARTNERSHIP ON MEASURING ICT FOR DEVELOPMENT: delivers all indicators required by the Partnership for household, individuals, and businesses

- COST EFFECTIVE: Using Enumerator Areas (EA) of national census sample frames and samples households, informal business simultaneously minimizes costs.

- SCOPE: Apart from delivering ICT indicators required by international bodies the survey delivers data and analysis for several regulatory functions such as pricing regulation and universal access.

- LINKAGES: explains interactions between households, individuals and informal and small businesses on ICT access and usage.
Developing understanding, building evidence
It is only through demand-side data collection that pre-paid mobile markets can be understood - quantitative data allows for quantification and analysis but qualitative lets the people speak.

This study was commissioned by the Mozilla Foundation as part of a wider study examining the ‘Beyond Access’ challenges that underlie digital inequality being undertaken across the Global South with the support of International Development Research Centre (IDRC). Focus groups were also carried out in India in Asia and Peru and Columbia in Latin America.

The focus groups were designed drawing on the results of the ICT access and use surveys conducted by Research ICT Africa in 2012. These studies provide a qualitative examination of Internet use and the barriers and user-strategies adopted to overcome limitation. It also examined some of the supply side issues such as the role of subsidised OTT services in enabling or limiting access to and use of the Internet.

The findings will be used to inform and refine the in-depth questionnaire that covers a myriad of issues from expenditure and capabilities of users to social networking and cybersecurity awareness.

“We don’t believe possession of a smartphone is enough to unlock the possibility of the Web for a significant set of people. We believe the open Internet is a social, educational, and economic tool that can build communities and businesses, and empower individuals. We support field research and analysis to dig into deep questions about user behavior and real-world effects of access models.”

- Mitchell Baker, Mozilla

“As more and more governments, donors, and non-governmental organisations (NGOs) invest in technology to help improve conditions in areas such as agriculture, health, education, and gender empowerment, they need to understand how the communities they are trying to help access and use the technology. Without that understanding, their programs are vulnerable to failure.”

- Elder et al. 2013

Analysis based on country cases by:
Margaret Nyambura (Kenya), Fola Odufuwa (Nigeria), Albert Nsengiyumva (Rwanda), Lwando Mdleleni, Mpho Moyo and Sinethemba Mthimkhulu (South Africa)
Methodology

Key to successful focus groups is local knowledge

Country partners Margaret Nyambura (Kenya), Fola Odufuwa (Nigeria), Albert Nsengiyumva (Rwanda), Lwando Mdleleni, Mpho Moyo and Sinethemba Mthimkhulu (South Africa)

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- Groups of around 10 people were stratified based on urban and rural location and on gender
- Highlighted linkages between Internet access and use with the social and economic context of both users and non-users.
- By reviewing the findings based on geographical location, gender and the extent of Internet use, similarities as well as differences in the comparative countries can be identified.
Findings

‣ Infrastructural issues still need to be addressed in rural areas, in particular to increase quality of service, which would allow users to choose any operator offering the cheapest product.

‣ There is also limited competition. Rural consumers do not have same choice of operators as urban users. In many other countries (such as South Africa) this has happened on the basis of business choice.

‣ Mobile operators are no longer the only means of Internet access. There is an increased awareness of other data sources, such as free Wi-Fi. In Rwanda and South Africa, government-led public Wi-Fi initiatives are popular. However, these are mainly accessible in urban and peri-urban areas, with almost no presence in rural areas where they are arguably most needed to stimulate use.
Factors that limit Internet used are not simply related to affordability alone, but include issues of quality of service of mobile networks; lack of electricity; scepticism about relevance of content; privacy; and security issues for both users and non-users.

Content scepticism highlights Beyond Access concerns that need to be addressed. In the scope of the study, it was mainly women who expressed concern about the content that they would be exposed to, once online.

Only in Kenya and South Africa are there concerns of surveillance related to politics. However, fears of community surveillance need to be further understood in how they contribute to limitations to Internet use.

Gender, based on social context, does hinder the extent of Internet use (as opposed to Internet access). Women are concerned with how using the Internet could impact on their day-to-day lives. Women also reported lack of time.
Why we go online...
The research sought to determine the motivations for going online, which included why respondents went online, what they accessed online – that is, popular sites visited – and how they accessed the Internet.

**Information Seeking**
“...because I love knowing more about things. I’m a Muslim. If I want to know more about Islam, you know I cannot go to Saudi Arabia to go and be asking questions.”
- Male Rural Respondent Nigeria

**Fast Communication**
“Before we used to write letters, take them to the post office etc... but now we just use the Internet and get prompt response, which is much cheaper.”
- Female Kenyan Urban Kenyan

**Curiosity**
“...Because I saw older people using. Then I spoke to my parents who started buying for me the small phones a ‘kaduda’. I later upgraded after resources ceased being a challenge.”
- Kenyan Rural respondent

**Global Communication**
Respondent 1: “I think the Internet is a global way of communicating, I’m not sure though.”
Respondent 2: “I agree..., that Internet is a universal way of engaging and interacting.”
- Deep Rural Female Respondents South Africa.

**Local Communication**
“I started using Internet in 2009 by opening my first email account. My main motivation was to communicate with colleagues about work and related reports but it is also a good opportunity to get up to date information.”
- Male Rural User Rwanda
Preferred content

The diversity of content accessed varies.

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Table 4: Type of content accessed in countries under comparison

Source: Author’s own based on focus group findings.
Education and research

The Internet is also used for research on school projects for the users themselves or their children. One respondent stated that they learn faster by using the Internet to carry out assignments. When asked to clarify further they stated: “I go on to the website, www.google.com, then I put my assignment and I get it faster” (male urban respondent, Nigeria)

“I use Google and Wikipedia for my class assignments, especially when in a presence of new word or topic that I have to learn about. As an engineering student, I also benefit a lot by reading conver.com to search for new design technologies”- Male Rural Respondent

“When applying for a school you scan and e-mail the application” (peri-urban female respondent).
Kigali, Rwanda
Business uses...

“Concerning that sir, some people believe that so far you enter the Internet, you’re looking for boyfriend or girlfriend. But as for me sir, I’m a builder. When I want to enter the Internet, I’m using Internet for my work... If I want to get any job, the site that I have never seen or anything that I don’t even see in my work, like the sand, I will record the sand, when I get back to the site, I have a lot of people that are wiser than me, I will take it to them.” (Rural male respondent, Nigeria)
Job search

searching for jobs, users stated that they make use of online platforms. In South Africa and Kenya users make use of OLX or Gumtree to search for jobs:

“okay fine, I heard from people that if you Google something maybe you will get a job, and that if you go on to Gumtree and add your CV they will look for a job for you, all you have to do is add your qualifications, like what you are qualified for and submit your CV, they look for a job for you...” (Peri-urban respondent, South Africa)
For instance a woman in the village, even if she wanted to use a cyber, she will not do that. Imagine being in the cyber at 7pm and you are expected to be at home cooking, taking care of cows etc. even if you have a child abroad and you want to communicate with them, it becomes very difficult... - Female peri-urban Kenya internet user
Social networking

“umhh ... I think for me people use Internet because they want to communicate and they want to socialise. For an example I was never going to use Internet if it wasn’t for Facebook and Google to set up my e-mail account”. (Female respondent, deep rural Nigeria)

“I will be with my friends and they will be discussing strange things that I don’t know. They will be saying “WhatsApp”, “Facebook”, “2go”, they will be talking, and chatting and I will be left behind. Sometimes my twin brother will ask me, “Do I like these things?” This thing continued to bother me until I now decided to tell him to open 2go for me.” (Female respondent, urban Nigeria)
Local content is ‘lekker’…

- Local content, often cited as a challenge for Internet users, limiting their Internet experience, is more popular in Nigeria and Rwanda.
- In Rwanda local online news sites, such as igihe.com and umuseke.rw, and online public services irembo.rw are the most popular local sites.
- **Local online news site is seen as more reliable in comparison to international media.** As one respondent stated, it has the “more updated news and it is the oldest private local online news in Rwanda” (female respondent in rural Rwanda).
In Nigeria respondents access a diverse number of local content sites, such as *Naijapals*, a content site for downloading movies, music and catching up with celebrity gossip; naij.com, a Nigeria information site; *Linda Ikeji*, a blog site; *Eskimi*, an entertainment and dating site; and 9ja bets, a betting site.
As of the second quarter of 2014, RIA has been tracking the price of 1GB data basket for all operators in 49 African countries as part of the RIA African Mobile Pricing Index. The 1GB basket comprises the monthly cost of 1GB data, based on prepaid data top-ups or bundled top-ups. It is converted to USD for comparison across African markets. The cheapest operator offering of 1GB of data, regardless of country, since the second quarter of 2014, has decreased from USD4.8 to USD2.3 as indicated by Figure 1. Similar trends are seen in the countries under assessment. However, for some the cost is unattainable. All of the countries under assessment showed prices being reduced as well, but did not offer the cheapest 1GB price in Africa.

Operators are increasingly facing competition from over-the-top (OTT) players like WhatsApp, which has resulted in a decline in traditional voice and SMS revenue. This has resulted in operators either launching innovative products on the market or seeking regulatory intervention against OTT players (Chair, 2016; Stork et al., 2016). These products include subsidised data in forms of service specific bundles, bonus reward data and zero-rated data (Gillwald et al, 2016). Operators are aggressively competing to encourage the use of data services and to retain and attract customers. Subsidised data refers to when one has the option to use or access data without paying for the service or purchases a service and receives extra data for complete Internet use or a specific service. Fully subsidised services, such as zero-rated content from mobile operators, are mainly

“Network is one great challenge, then the cost. You want to download a book, before it is complete you hear a message ‘tititit’ you are running short of bundles, the bundles are almost depleted. The cost is taking a toll on the users. And then the cost of the gadgets, many would want to but the phones are costly, so you go for the small one ‘katwin’ (twin SIM, a feature phone) you try to do anything it tells you insufficient memory. You have all sorts of limitations.”

- Semi-urban femal respondent, Kenya

Figure 1: 1GB cheapest prices trend in Africa and 4-country comparison in (USD) Q22014-Q32016
Multiple access and use strategies...

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<tr>
<th>Data type</th>
<th>Key elements</th>
<th>Cost to consumer</th>
<th>Data variations</th>
<th>Examples</th>
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| Prepaid data package | Characterised by the quantity or volume that the user purchases and the expiry date of the bundle purchased, i.e., validity. | Full cost on customer.        | - Set volume of data above 1MB with validity that is daily, nightshift (between midnight and 5am)  
- Pay for unlimited Internet access for a set period  
- Combined-service top-up: user buys a combination of two or more services, without a breakdown of how much each service costs. | - Buy once-off 100MB of data valid at night  
- Unlimited Internet for 30 days  
- Buy 100MB data + 100 call minutes  
+ 100 SMSs + 100MB for social media (or unlimited data for social media). |
| Rewards            | Based on activities the user does that qualifies the user for a reward from the operator, extra data, extra SMS or airtime credit. | Customer does not pay directly for the service in rewards. | - Recharge certain amount = extra data  
- Recharge = accumulation of points. | - Recharge USD50 and get 150MB or USD100 of data before they have used the airtime for a service  
- For every USD10 spent, the customer gets one point. Once a customer gets 100 points, she or he can redeem the points for voice, SMS or data. |
| Zero-rated data    | Applications or services that do not carry a data charge to the user’s data package. | No cost.                       | - Social media sites  
- Educational sites. | - Zero-rated Free Basics or Twitter. |
| Service specific data | Buying bundles to use for a specific service.                                | Customer pays the cost for just accessing the service. | - Social media bundle  
- Music subscriptions. | - Buy monthly data for WhatsApp only. |

Table 2: Mobile network data offerings to consumers
Subsidised data (zero-rating)

- Mobile phones remain the most popular means of Internet access for most respondents.
- Fully-subsidised data does not tie down users to limited content available, nor does it result in new users going online because of it.
- Subsidised data forms part of multiple user strategies for data-cost management, which is strongly dependent on the availability of ‘free’ data as well as the culture of OTT substitution.

"I think those free things to be honest do not motivate us to use the Internet to buy data. Personally speaking those things do not motivate me. Those free data and what you call it, the Internet shark swallows it very quickly."

- Urban male respondent, South Africa

- None of the new Internet users that formed part of the focus groups reported that they went online because of the availability of Freebasics.
Barriers to Use for non-users

“Because, yes, just like what he said now, you can see many people, illiterate ones, that use smart phones, but they don’t even know where to touch and get the internet. They only receive and make calls, just to receive it as fashion.” - Rural Male Nigeria
The issue of electricity is really restricting us from doing what we really want to do with our phones because we must always try to preserve the batteries.” (Female respondent, deep rural South Africa)
Privacy, surveillance, (self-) censorship…

“On Google there are Spams, there are Trojans uhm...all those, people who are going to hack the...from your account, it is not safe”. (South African female urban).

“Some people fear ending up losing important things, such as respect and rights to be elected because of their stories and photos on the Internet”. South African - peri-urban female

...Of course like when the government sets some very harsh policies regarding the use of the Internet for example. They say that you do not send some type of messages; you do not send some type of messages using the computer. Now they fear using the Internet because they may be captured in the process.” Kenyan urban female
“The person that formed the group made a comment and said this forum is not meant for rubbish post because the person just posted one video that scared people and that night I couldn’t sleep. When I just opened it I hear zoomoom like a witch and wrote the person that formed that forum that “What is going on here? Didn’t you see this thing somebody is posting.” (Female respondent, urban Nigeria)
• Zakerai, Nigeria
Gender

Unsolicited content deters many female users online as they often receive messages via social media platforms that make them reluctant to use the Internet.

“For instance a woman in the village even if she wanted to use a cyber she will not do that. Imagine being in the cyber at 7pm and you are expected to be at home cooking, taking care of cows etc. Even if you have a child abroad and you want to communicate with them, it becomes very difficult…”

- Peri-urban female internet user, Kenya
Gender

- In rural areas, power relations between men and women impacted on Internet use for women in particular.
- Respondents in rural South Africa and Kenya said that partners feel uncomfortable with them being on social media sites, due to jealousy or fears that they will be unfaithful.

“I also do not go on social networks at night because that is creating problems to my relationship. I stopped him from being on WhatsApp at night, so I had to do the same.” - Female respondent, deep rural South Africa.
The report is available for download: http://www.researchictafrica.net/home.php?h=205

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