Lifting the gender veil on ICT indicators in Africa

Mariama Deen-Swarray, Alison Gillwald and Ashleigh Morrell

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Introduction

- This study builds on RIA's 2010 Gender and ICT study
- Explores the masking effect of income and education on gender
- Analyses whether there are gender differences in ICT access and use
- Investigates the factors contributing to the gender gap using econometric models
- Focuses on 11 countries in Africa based on the 2011/12 Household & Individual Survey conducted by Research ICT Africa
Conceptual framework

- Access
  - Ownership
- GENDER
- Use
  - Affordability/Skills

Variables:
- Country Dummy
- Ethnicity/culture
- Marital status
- Income
- Age
- Education
- Exclusion
- Inclusion
- Pay phones
- Fixed phones
- Mobile phones
- Internet

Impact:
- Human, economic and social development
On average, **women** earn comparatively **less** than men (RIA 2011/2012 survey).

In general **women** are **less** involved than their **male** counterparts in **income generating activities**. **Fewer women** than men have **tertiary as their highest level** of education and this difference is **wider** in Ghana, Kenya, Nigeria, South Africa and Uganda.

In the **secondary** and **primary** school categories, the majority of the countries also have **more men** than women completing these levels of education.
There has been an increase in mobile adoption from 2008 to 2012. Adoption in Ghana remained almost fixed.

Adoption is much higher among women in Botswana, Namibia and Cameroon (2012)
Internet use in all countries in general and by gender increased between 2007/8 and 2011/12;

There are more men using the internet than women in all countries, except in Cameroon and Tanzania but with very little difference.
Computer use is still relatively low across African countries. The RIA 2011/12 results show that computer use among individuals is above 10% in only 4 of the countries surveyed.

Only in South Africa is computer use close to 30% and in Kenya it is slightly above 20%.

There are more men than women making use of computers in all countries with the exception of Ethiopia (at par), Tanzania and Rwanda (slightly more women); the gender gap much wider in Kenya and South Africa.
### Affordability & Use

<table>
<thead>
<tr>
<th>Country</th>
<th>Average Monthly Expenditure on Mobile Phone in US$ PPP</th>
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</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>Male 37.75, Female 20.60</td>
</tr>
<tr>
<td>Botswana</td>
<td>Male 34.65, Female 24.91</td>
</tr>
<tr>
<td>Namibia</td>
<td>Male 26.07, Female 17.08</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Male 23.78, Female 14.43</td>
</tr>
<tr>
<td>Cameroon</td>
<td>Male 23.01, Female 18.57</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Male 22.05, Female 23.02</td>
</tr>
<tr>
<td>Ghana</td>
<td>Male 21.64, Female 19.10</td>
</tr>
<tr>
<td>Kenya</td>
<td>Male 18.82, Female 16.48</td>
</tr>
<tr>
<td>Uganda</td>
<td>Male 13.95, Female 11.27</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Male 7.79, Female 8.89</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Male 6.67, Female 7.08</td>
</tr>
</tbody>
</table>

- **Women** in most of the countries surveyed spend less on mobile phone use.
- **Tanzania, Rwanda** and **Ethiopia** are an exception, where we have women spend more than men on mobile phone use.
Mobile phone use and access across 11 African countries

More advanced and sophisticated activities such as downloading applications, browsing the internet, playing games, reading/writing emails are common among men.

The more basic mobile phone services such as missed calls/please call me, text messaging and sending/receiving money are more used by women.

The issue of affordability slightly more prevalent among women.
Women’s access to internet through internet cafes dropped whilst increasing through all other places.

The share of women accessing the internet through an educational institution is comparatively higher than men.

A larger share of women claim that they are not aware of what the internet is, do not have the know-how or technical skills and find it too expensive.
A higher proportion of men use computers to carry out **word processing, work on spreadsheets, programming, remixing** and playing games.

The gender gap is even wider in more technical activities such as **programming** and **remixing contents found online**.

Slightly more **women** use computers from a **library**.
Access to and use of Public Pay Phones

The issue of affordability is shown as the main reason why public pay phones/community phones are still being used. More women than men claim that they use public pay phones because it is cheaper.
Empirical Findings

Income & Education

- Being **female** has a **negative** causal relationship to **income** in all countries except South Africa.

- Being a **woman** has a **negative** impact on **education**, though only significant in **Ghana** and **Tanzania**.

- In Namibia, South Africa and Botswana being a woman shows a **positive** correlation to **education**.
Empirical Findings

ICT Adoption

- Being a **woman** is **negatively** correlated to **mobile phone ownership** but shows no causal relationship **except** in **Ethiopia and Rwanda**.

- In **South Africa and Botswana**, being a **woman** has a **positive and significant** relationship to mobile adoption.

- **Income and education** variables are found to have a **positive and significant** relationship to **mobile adoption** across all countries.

- Being a **woman** had a negative effect on Internet use. In **Ethiopia, Ghana** and **Nigeria** this indicated a causal relationship (significant).

- **Income and education** show a **positive causal effect on internet use**. These variables have the same impact across all countries, though income shows no causal effect on internet use in Ghana and Ethiopia.

- Being a **woman** had a **negative causal effect on computer use** but only in **South Africa, Nigeria** and **Kenya**.

- **Income and years of formal education** showed a **positive causal effect** on the use of **computers** across all countries except **Ghana**.
Conclusions & Recommendations

- This sex-disaggregated overview indicates that women and men are not equally able to access and use ICTs.

- Women generally have less access to ICTs and use them sub-optimally and this increases as the technologies and services become more sophisticated and expensive.

- The study confirms in the adoption models that education and income have a positive impact on ownership and use of ICTs.

- The gender disparities found in income and education, indicate they are key contributors if inclusion is to be achieved.

- The positive and causal relationship between education and income further points to the importance and need for ensuring equity in education.

- Internet access seems to be wide spread in learning institutions, but women have less access to higher education where Internet provisioning is more available.

- Women use public phones mainly because of affordability issues.

- The points of policy intervention therefore need to focus on far more fundamental intergenerational issues of education and income equity than localised ICT aggregated access points.
Thank You