Intersectional inequality inhibits digital substitution aimed at mitigating COVID-19 effects in South Africa

❖   The results from the 2021 RIA COVID-19 Rapid Response Phone Survey conducted in South Africa using the Random Digit Dialling sampling method, show that the lockdown and social distancing led to a rise in use of the Internet – up from 53% of the population prior to the pandemic, according to RIA After Access survey, to 62% during the first year of the pandemic.

❖   The Internet gap was wider between urban and rural areas – 70% of individuals who live in urban areas had access to the Internet compared to 49% of people living in rural areas. The gap was even wider between the proportions of rural African women (48%) and urban white men (90%) which shows how digital substitution can widen the already existing gender digital gap.

❖   The increase in uptake of digital platforms accounted for an increase in Internet use among women by a margin of 10% from 2018 figures, with 59% of women using the Internet in 2021. Internet usage amongst men increased from 57% to 66%, reducing the digital gap between men and women by three percentage points from 14% in 2017 to 11% in 2021.

❖   A quarter of the survey respondents indicated that they had applied for the COVID-19 relief grant which was offered by the government. Of those who applied, 57% of them were successful in their applications, while 43% did not receive the grant. A higher proportion of men (58%) than women (50%) applied and received the grant, which suggests an inequality in access to grant assistance.

Internet access and usage during the COVID-19 lockdowns

The social distancing and lockdown measures that were put in place to curb the spread of COVID-19 has led to an inevitable surge in the uptake of digital services globally. The lockdown policies, aimed at decelerating cases of COVID-19, resulted in governments and businesses relocating services, communication and work activities, where they could, online. Governments provide services such as social protection, disease burden monitoring, contact tracing, and dissemination of COVID-19 related news and updates. Companies allowed their employees to work from home, education service providers shifted to virtual teaching and learning, and there was an increase in the demand for job vacancies for online working arrangements (OECD, 2021).The rise in demand for digital services such as video-conferencing and online content drove Internet traffic up more than 60% compared to the pre-COVID-19 period (OECD, 2020).

In South Africa, the results from the 2021 RIA COVID-19 Rapid Response Phone Survey show that the lockdown and social distancing also led to a rise in use of the Internet – up from 53% of the population prior to the pandemic to 62% during the first year of the pandemic. The results however indicate that a significant number of people (almost 40%) remain marginalised from services, unable to digitally substitute their work, schooling, banking, and shopping or even unable to access COVID-19 relief programmes.

The sudden push to move services online has left marginalised communities more vulnerable. As the survey shows, 40% of people who could not get online during the first year of the pandemic during the hard lockdowns were from poorer households. As a result they have felt the worst impact of job losses with scholars in these households effectively losing a year of education.

For some people who had Internet access, they nevertheless were unable to undertake their work online. Working from home was largely only practical for people in the service sector, or in roles such as administration, who are relatively better paid and also more likely to have access to the Internet at home. The majority of the vulnerable class who work in the manufacturing industries, as domestic workers and other forms of manual labour, could not move their work online regardless of whether they had access to the Internet or not. As a result, while the COVID-19 drove people online it has also exacerbated poverty and inequality.

This policy brief, which is based on the findings of the 2021 RIA COVID-19 Rapid Response Phone Survey (Covid-19 Rapid Response phone survey methodology), seeks to demonstrate the impacts of COVID-19 and its associated public policy responses on digital and intersectional inequality in South Africa from a demand-side perspective.

Internet access and usage

Over **60% of the South African population used the Internet during lockdown** in 2021 according to the survey, a sizable increase from 53.1% reported in the 2018 After Access Report (Gillwald et al., 2018). However, the 2021 RIA COVID-19 Rapid Response Phone Survey findings show that there were significant disparities in Internet use among the South African population. 88% of the white population in South Africa used the Internet, followed by 67% of coloured people and 60% of black people, while around 40% of the population did not use the Internet, with the majority of these being semi- or unskilled workers. Respondents in this category reported being unable to move their work online, severely affecting their lives during the pandemic.

Mapping Internet use by **location and gender** confirms significant disparities already tracked in previous national surveys (After Access 2018), with more men accessing and using the Internet than women and those in urban areas more able to access the Internet than in rural areas.

The increase in uptake of digital platforms accounted for an increase in Internet use among women by a margin of 10% from 2018 figures, with 59% of women using the Internet in 2021. Internet usage amongst men increased from 57% to 66%, reducing the digital gap between men and women by three percentage points from 14% in 2017 to 11% in 2021. Although this is a modest improvement, it still means men, as a result of greater access,

were more likely than their female counterparts to benefit economically and socially from Internet services.

The survey indicates further that the Internet gap was even wider between **urban areas and rural areas** as 71% of individuals who lived in urban areas had access to the Internet compared to only 29% of those who lived in rural areas. There is a significant Internet access gap between rural black women and urban white men (see Figure 1 below)

Figure 1: Internet access between rural and urban residents between black and white population groups
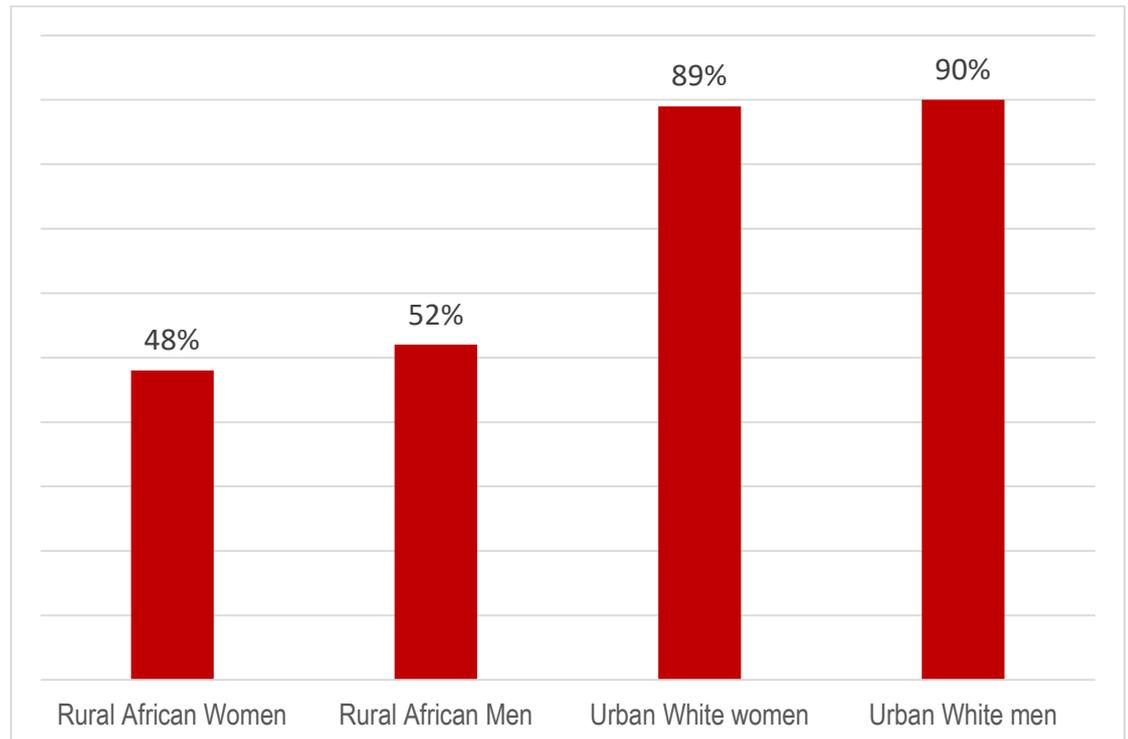
Source RIA Covid-19 Rapid Response Phone Survey, 2021

The Figure above shows the Internet access gap between white and black population groups across geographical locations. For black women who are rural dwellers, 48% of them have access to the Internet compared to 90% of white men who reside in urban areas, a significant example of how marginalised groups can be negatively affected by technological and digital interventions and advancements. The same can be said for the access differences between rural black men and urban white women.

The survey reveals that women who lived in urban areas were more likely to use the Internet compared to those who lived in rural areas. Of the total women, 66% of those who lived in urban areas used the Internet compared to 48% in rural areas. On the other hand, 74% of men who lived in urban areas used the Internet compared to only 51% in rural areas. Despite the high uptake of the Internet in urban areas, the survey further shows that the gender gap was larger in urban areas than in rural areas.

An assessment of the employment distribution amongst the survey respondents shows that women were at a higher risk of losing a job in the previous year compared to their male counterparts. Some 30% of women surveyed were employed as casual workers of which

most were doing manual and domestic work occupations, which cannot be performed online.

The survey also shows vulnerabilities in terms of the racial-gender gap. Black women were at a higher risk of being unemployed. Around 60% of black women did casual work, were self-employed in the informal sector or ran a small business compared to 52% of white women who were doing formal jobs and 48% casual work.

Furthermore, 40% of black women who were self-employed and 33% of those who ran businesses reported that they did not use the Internet. Clearly, the shift to online work meant to reduce the spread of the disease had had a significant effect on most black women who often lack either digital devices, internet literacy or digital skills, or cannot afford Internet services. As a result, the move online during the lockdowns reduced the working hours of self-employed women and consequently their income, with a greater impact on black women.

Social protection

The South African government introduced a COVID-19 Social Relief of Distress grant of R350 per month, among other interventions such as the Temporary Employee/Employer Relief Scheme (TERS), loan scheme for SMEs, and the Unemployment Insurance Fund (UIF) (South African Social Security Agency, 2020). A quarter of the survey respondents indicated that they had applied for the grant, which would equate to 25 million people in the country. Of the 25% who applied for the grant, 57% of them were successful in their applications, while 43% did not receive the grant. A higher proportion of men (58%) than women (50%) applied and received the grant, which suggests an inequality in access to grant assistance. More specifically, proportionately more men applicants (33%) received the grant than women, of whom only 24% were successful.

The dominant platforms of application for the grant were SMS and USSD (71% when combined), which confirms that low technology solutions are still essential in reaching the majority of the population.

An analysis of the applications for the grant by location confirms an urban bias in the allocations. Of the mobile phone users that applied and received the grant, 61% were urban residents, and 39% lived in rural areas.

Examining the applicants by education, the survey finds that most applicants had primary and secondary education. More specifically, of the mobile users that applied and received the grant, 47% had completed a matric as the highest level of education, 30% had a primary education certification, 12% held a tertiary qualification, 7% had technical or vocational training certification, and 4% had no education. Trends among non-recipients confirm a similar outcome. In this regard, of those that applied and did not receive the grant, 55% held a matric certificate, 29% had primary education, 10% held a tertiary qualification, 3% had no education, and 2.8% possessed either technical or vocational training certification.

Across races, RIA observed that proportionately more white and coloured people applied and received the grant relative to their black counterparts (only 54% of black applicants received the grant, compared to 90% of applications from other races). This result is

impacted by the fact that many black applicants were excluded from applying for the grant as a result of already receiving other forms of government social protection such as old age, disability and child support grants.

E-commerce and financial flows

While brick-and-mortar retail stagnated during the lockdowns, e-commerce, for many years comparatively poorly developed for an economy South Africa's size, saw a dramatic increase in demand with online retail companies seeing exponential growth (Watling, McCabe & Seedat, 2019) and several goods and service companies pivoting online. As the country's economy declined by 7% in 2020 (Statistics South Africa, 2020), the continued economic activity via digital platforms forms a vital path to economic reconstruction post-Covid-19. It also has implications for much-needed resource mobilisation for the State. Like many developing countries, South Africa has a dual economy and large informal sector that is difficult to tax (El Badaoui & Magnani, 2013). As firms move into e-commerce, financial flows become more visible to the State, paving the way for broadening the tax base by levying appropriate taxes on the productive dimensions of the informal sector.

The survey indicates that only 6.1% of mobile phone users with Internet access made money online by running a business and selling products and services during the lockdown. In addition, 31.5% received or sent money, made payments or received vouchers, 12.3% ordered meals online, and 5.8% were able to order groceries online during the most stringent periods of the lockdown.

The survey found that a relatively simple activity such as ordering meals online amplified pre-existing digital and intersectional inequalities. Specifically, there were biases towards urban (15.3%) over rural (5%) residents; informal settlements, suburbs, and inner cities (40.5%, 25.3% and 16.6%, respectively) over small towns, farms and villages (9.4%, 5.8% and 2.5% respectively); regular and permanent contract workers and the self-employed (21.7% and 19%, respectively) over casual workers (8%); and youth (15.3% or 1 804 649) over the elderly (8.9% or 700 615 for the mobile users aged between 35 and 65 years and 6.6% or 28 334 for those aged over 65 years). Fewer black people also ordered meals online compared to other demographics.

Consistent with expectations, respondents who worked as regular and permanent contract workers had the highest proportion of personal tax registrations among the employment categories (70%). Those who worked as casual workers and ran their own informal businesses had a minuscule proportion of personal tax registrations (i.e. 35% and 19.8%, respectively).

COVID Alert SA app

As in many other countries, the government used mobile technology for contact tracing by setting up the COVID Alert SA app, which was widely downloadable. Regarding awareness and downloads of the app, about 43% who had heard of the app had access to the Internet to download it, but only 25% who had heard of the app actually downloaded it. Of those who used the app, 84% owned smartphones while 16% did not. Although the percentage of those that had heard of and downloaded the app was below the 60% threshold of downloads required to meaningfully unlock the effectiveness and network effects of the

app, there was relatively high retention among those who downloaded the app (77%). Delving more deeply into the reasons why people downloaded but did not use the app, the survey reveals that users:

- did not find it useful (36%);
- believed the app used too much data (34%); and
- were concerned about privacy issues on the app (3%).

Despite access to the Internet being relatively more skewed towards men (66%) compared to women (59%) amongst respondents in the survey, it nevertheless revealed that proportionately more women than men used the app. More specifically, 87% of women respondents with access to the Internet used the app, in contrast to 79% of men.

Access to remote schooling and work

The survey shows that 12% of respondents with Internet access attended online classes for school or university during the lockdown, while 6% of mobile phone users with Internet access undertook online training outside of schools or universities. It found that smartphones were the most utilised devices for remote learning. Amongst children using the Internet for remote schooling, 70% used smartphones, 20% used either computers or laptops, and 18% used tablets only. Further, 4.5% used both a laptop/computer and smartphone for remote schooling, 2% used tablets and smartphones only, 1.7% used a computer/laptop and tablet only, and 0.4% used all three devices for remote online schooling.

Addressing the twin challenges of informality and preparing for platform work requires skills development and a scaling up of remote learning. The challenge is that the survey showed that only 30% of learners participated in remote learning, while 16% of the youth (aged 18-35 years) participated in remote learning or training, and only 3% aged between 35 and 65 years. Consequently, the remote learning skills gap is 70% for learners, 84% for the youth and 97% for people over 35 years old.

Conclusion

The 2021 RIA COVID-19 Rapid Response Phone Survey confirms increased digital and Internet access during the ongoing COVID-19 lockdown in South Africa. This is primarily linked to smartphone access, which in turn correlates positively to being male, urban and young. This means that this profile of South Africans is likely to have greater economic opportunities and access to social protection services. This confirms findings of other COVID-19 surveys, such as CRAM and the 2018 After Access survey, that higher levels of education, gender, and urban location determine access and internet use. For instance the dynamics around access to government social protection services, remote learning and work, and e-commerce flows are highly skewed towards those with higher education credentials, men, and urban residents. The RIA survey also finds that introducing the COVID-19 app as a government crisis contact tracing strategy appealed to urban dwellers, women and the youth but not rural residents, men, and the elderly.

Based on these findings, the policy recommendations are as follows:

- Recommendation 1: leveraging the Covid-induced increase in Internet use by providing access to affordable smartphones which are the primary inhibitor of getting people online. As indicated, the smartphone has been an essential device for remote learning, working from home, and access to the contact tracing COVID-19 Alert SA app. The government could provide instant relief by removing custom duties for low-entry smart devices so that they are brought in reach of at least those who are nearly able to afford them.

- Recommendation 2: this however will not address the price threshold for the greater number of indigent people, shrinkage of the economy and rising employment levels following the pandemic. Even prior to the pandemic facilitating cheap mobile access which is sufficient for equitable access to digital substitution was a challenge. This entails the need for new universal access measures that target households facilitating access to devices and affordable, fast and reliable connectivity. For instance, remote learning should enable resource sharing among same household school-going children.

- Recommendation 3: addressing intersectional inequality by creating more programmes that bring more women online, alongside improving rural network coverage with the new spectrum allocation to help rural learners participate fully in the online learning ecosystem. In terms of the use of technology, there should be mechanisms that target the least educated – such as the provision of online content in local languages across different regions in the country – so that the new technologies do not amplify the digital divide.

- Recommendation 4: targeting universal social protection measures. Most of the assistance programmes by the government are likely to perpetuate and deepen inequalities given the eligibility criteria for programmes such as TERS and UIF. For instance, in the case of TERS, unemployed people are automatically ineligible since these programmes are only for the employed. Given the high unemployment rate in the country this should be considered carefully for future disasters and pandemics.

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This policy brief draws from South African COVID-19 Rapid Response Phone Survey South Africa Report & Working paper (2022) that was developed by Tapiwa Chinembiri, Mundia Kabinga, Onkokame Mothobi and Alison Gillwald.

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