Mobiles alters the digital divide - but to what extent?

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The high cost of data, digital literacy and old technology on mobile phones continue to hamper the closing of the digital divide on the African continent.

A new discussion about the digital divide is needed to address urban/rural divisions, so that, when we talk of closing the gap due to widespread use of mobile we need to look closely at what kind of access marginalized groups have.

It was not long ago that the words "digital divide" featured as part of any discussion about new technologies. But with the fading *newness* of these technologies and their ubiquity, particularly of mobile phones, these discussions, are slowly fading in prominence.

Yet the digital divide remains and continues to intensify through ways previously maligned by mainstream discussions. Despite the high mobile phone concentration on the continent, around the 72% mark, actual access to the Internet remains woefully inadequate at 7%. Popularly, discussions about the digital divide have focused on the structural gaps between those who have access to new technologies and those that don't. It stands to reason then, according to this framework of understanding, that once most individuals have access to a mobile phone for example, the digital divide is effectively solved. This approach is neatly captured by the 'leapfrogging' narrative.

At times, mostly through the lens of research, the term has been used to describe the separation between people who are Internet literate and those who are not. Internet literacy or digital literacy can be loosely described as the ability to navigate the internet and its associated applications, to understand the potentials associated with access to larger volumes of information and knowledge, and finally, to make use of this knowledge and information towards some greater end, even if knowledge and information is that end.

The digital divide, once overcome, is purported to lead to all sorts of opportunities; structural changes in the quality of life of individuals and communities, entrepreneurship and other business opportunities, and the list goes on. The reality though is that,

through a potent combination of data costs and digital illiteracy, the potential of the mobile phone to remedy the ills of society is rendered impotent.

The lack of content in local languages remains an under researched aspect of the digital divide. In 2011, over 11 million South Africans listed isiZulu as their first language. The lack of language-specific content for these individuals is obvious, but what is less apparent is the fact that the dominance of English on the interwebs should be calculated as a contributing factor to digital illiteracy. The more local language content becomes available, the more speakers of these languages can make use of digital content.

In 2013, the United Nations announced that its findings indicated that more people on the planet had access to mobile phones than access to a working toilet. Of the world's 7 billion people, the study showed that 6 billion had access to a mobile phone while only 4.5 billion had access to proper sanitation. A report by pan-African research group Afrobarometer suggests the situation is no different on the continent. Their work on the availability on infrastructure in Africa suggests that mobile telephony is the most widely available while sewerage services are the least. These statistics provide a stark picture of the inability of the mobile phone alone to transform the material realities of the impoverished. A better way forward is to articulate a clear and careful distinction between what is made possible through access to a mobile phone and what the reality is based on the high costs of data and the complication of Internet illiteracy.

The urban/rural digital divide in South Africa

The Internet in South Africa is just over two decades old. Access to it though, according to conventional interpretations, remains confined to those able to afford the relatively high data costs in this country. Urban residents with a high proportion of disposable income, and access to work spaces that provide Internet access via Wi-Fi, are more likely to use their phones towards the betterment of their material circumstances.

There is little doubt that the mobile phone penetration is significantly high in South Africa, whether it is within the urban or rural landscapes. The most significant difference between the two geographic groupings, (and consequently, broader socio-economic groupings), remain the level of sophistication in the use of the technologies. Three years ago, a UNICEF study showed that South Africa was home to the third largest number of mobile subscribers on the continent after Nigeria and Egypt. A year earlier the South African national census showed that 64.8% of households in the country had no access to the internet. And even with access in place, broadband in South Africa remains among the most expensive in the world.

Access to the Internet then does not match the sheer numbers of mobile phones in a large number of South African homes and here in lies the 'digital divide' of the post-access kind. In 2013, a report by InfoDev indicated that while some of the country's poorest people had access to mobile phones, the "usage of data applications is fairly low". Access from these devices for the use of social media platforms such as Facebook Zero, overall, "other applications, such as mobile money, do not seem to be well targeted to the poor".

Discussions of the digital divide also tend to assume that the smartphone, with its potential to act as a mobile desktop, is the norm. In South Africa, rural populations are reliant on feature phones, phones with limited capabilities but with the ability to make a call, send an sms and receive analogue radio. These phones are captured in the vast numbers of devices available across this country but not separating them out from these numbers is to create an inaccurate picture of the extent of access.

While it is quite obvious then that the gap between access to mobile phones in urban and rural areas is quickly closing, it is also clear that the use of the technologies facilitated by these phones remains a point of stark difference between the two groups. It is vital then, that any discussion of the 'closing of the gap" type, pay close attention to these substantive differences in real usage.

But there are some examples of success which provide valuable lessons in addressing the digital divide. Projects which focus on the use of the mobile phone in rural agriculture or the provision of medical care in areas lacking resources have shown success in effectively bridging the urban/rural digital divide. What these projects show though, is that training towards the eradication of digital illiteracy is paramount. They also show that technologies or applications via the mobile which are more community or issue-focused are likely to have a high curve of success than general technologies which have to be adapted to local use.

These projects though, also indicate that the provision of the mobile phone and its associated technologies is only effective if other socio-economic conditions are met. In the case of farmers, these may be the access to the correct pesticides, knowledge about farming in variable weather conditions, data about produce demands and sales and so on.

An article published by student newspaper *Wits Vuvuzela* on the recent e-learning survey at Wits University suggests that despite the high concentration of cellphones among first-year students (79% according to the article), students generally lack the technological skills that their lecturers often assume they have. Put simply, even giving young, urban students access to technologies does little to overcome the digital literacy issues that remain after the access issue is solved.

The high costs of data will remain an impenetrable shield to the effective usage of the mobile phone in rural areas and until data becomes generally affordable, the full potential of the mobile phone will not be realised. Digital literacy is hardly a silver bullet but it is potentially a spark to light the fire of individual agency in addressing so many of the socio-economic issues plaguing South African rural communities.

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