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United in diversity? Digital differences and inequalities within a South African rural community

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ABSTRACT

Digital inequalities in Africa have been explored in terms of dimensions such as gender, age, education, socio-economic status, language, ability/disability etc. In the present study, we draw on qualitative research emphasising digital differences within Dwesa, a rural community on the Wild Coast of the Eastern Cape Province of South Africa. For the past decade and a half, this has been the site of extensive ethnographic and ICT-for-development research highlighting complex and nuanced social arrangements, social stratification and local power dynamics. Mobile communication and media appear to either entrench or challenge the status quo, e.g., by strengthening the bond with community members who migrated to urban areas, by disrupting cultural norms or by opening up work and education opportunities. Mobile digital access, use and benefits are unevenly distributed within the community. Teachers and local business people tend to be early adopters and use phones extensively for work-related purposes and to maintain contacts outside the community. The youth appear to be the most sophisticated and frequent users of social media to organise events and meet new people. Somewhat surprisingly, mature women provide some of the most innovative examples of collaboration and empowerment. People of all ages, genders and socio-economic backgrounds recognise the disruptive potential, costs and limitations of digital technology and some deliberately limit themselves to voice calls. Our findings problematise a view of rural African communities as digitally homogeneous and provide some examples of how actual experiences in the Global South challenge expectations based on research from the Global North.

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Introduction

Multiple digital divides exist not only between the Global North and the Global South but also within countries and even within the same community. Such disparities are best articulated on a continuum of unequal availability of ICT devices and infrastructure, skills and competence in ICT use and benefits accruing from such use, corresponding to different levels of the digital divide as discussed in Mutsvairo and Ragnedda (2019).

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Digital inequalities along gender, age, language, education, geographical location and (dis)ability are but further expressions of the socio-economic disparities which characterise South Africa. In terms of the urban/rural digital divide (Odendaal et al., 2008), rapid urbanisation is shifting attention towards digital and particularly mobile use in metropolitan areas (see Powell, 2012). In South Africa, a multi-disciplinary body of literature emerged from the experience of the Siyakhula Living Lab in Dwesa, a deeply rural area on the Wild Coast of the former homeland of Transkei. In the present study, we reflect on existing research and new empirical findings to understand how different people in Dwesa access, use and benefit from Information and Communication Technology (particularly mobile). The significance of this work lies in emphasising the heterogeneity of experiences even within such a small community and in reflecting on the implications for entrenching or reconfiguring local power dynamics.

Mobile technology and development in Africa

The role of ICT in enabling development has long been recognised on a global scale (Padovani & Nordenstreng, 2005). Euphoria on the potential of ICT in the socio-economic upliftment of marginalised communities dates back to the mid-1990s (Fassil, 2009). The UNDP's Human Development Report (2001) expressed high hopes that ICT's would lead to increased knowledge which in turn would assist people to live more productively and healthily. Effective adoption of ICT's has a good record in many parts of the world and has shown how digital technologies can potentially assist in the attainment of significant social, economic, environmental and political benefits (Gelb et al., 2008). Gurstein (2003, p. 10) states that effective use of ICT's depends on 'the way people are making use of it in their daily lives and how well they have integrated ICTs into their social, productive and cultural activities'. A key determinant of the relationship between ICT and development appears to be the extent of its amenability to the local political, economic and socio-cultural context, particularly when members of marginalised groups are concerned (Gigler, 2011).

Mobile phones represent the first opportunity to engage in digital telecommunication for many users globally, including in Africa. The booming penetration of mobile phones on the continent is considered a significant opportunity for marginalised rural communities which have been excluded from development processes (Botelho & da Silva Alves, 2007; Hahn & Kibora, 2008; Manamela & Rambuda, 2016). The popularity of mobile phones in Africa can be attributed to various contextual and historical reasons. The introduction of mobile phones into African economies is a result of the liberalisation of the telecommunication sectors, which happened in the late 1990s (Castells, 2000; Etzo & Collender, 2010; Ussher, 2015). Compared to other technologies such as computers, mobile phones are more user-friendly and require less technical skills and training to use (Botelho & da Silva Alves, 2007). Furthermore, mobile phones do not require a constant electricity supply which may be problematic in an African rural area (Kellerman, 2006; Ussher, 2015). Finally, the widely used 'pay-as-you-go' model gives people control over their spending on airtime and data (Lacohée et al., 2003; Ussher, 2015). Modern mobile phones enable people not only to communicate and interact but also to access a range of services thereby improving education, public health, governance, participation and creativity (Rashid & Elder, 2009). For many Africans, mobile technologies present

the first, foremost and sometimes only opportunity to be politically, economically and socially included.

In the political sphere, mobile technologies contribute to raising awareness, enable monitoring and support mobilisation. As an example, during the 2013 general elections in Kenya, social media was the key tool used by presidential candidates to reach out to first-time young voters (Pierskalla & Hollenbach, 2013). Moyo's (2020) concept of a democratic divide captures the implications of the use of mobile phones by citizens to speak truth to power and shift public discourse. By analysing user-generated mobile videos reporting police brutality posted on the website and Facebook page of a popular South African newspaper, Dalvit and Schoon (2018) outline diverse and often contrasting responses and emphasise the emergence of positions which do not find expression in traditional media. Chiumbu's (2012) study on mobile phone use for mobilisation by the Western Cape Anti-Eviction Campaign shows that mobile phones helped in improving efficiency in the organisation of the campaign and in consolidating group identity among people from low socio-economic backgrounds. Mobile and social media can, however, support political radicalisation as exemplified by their use by Boko Haram (Cox et al., n.d.). Gigler (2011) maintains that technology on its own cannot overcome a lack of participation in the political system within rural communities.

Examples of the economic potential of mobile technology in Africa pertain mainly to mobile money and the support of small businesses and farming activities. M-Pesa in Kenya is often credited with 'banking the unbanked', but mobiles can also be used for accessing e-services, online purchases, airtime transfers or bank notifications (Lawack, 2012). Small businesses across Africa rely on mobile phones for survival and enhancement of entrepreneurship (Centre for Economic Policy Research, 2011; Sey, 2011; Ussher, 2015), informal trading (Bhavnani et al., 2008; Sife et al., 2010) or farming (Butler, 2015). Ussher (2015) notes that female informal traders negotiate and confirm prices through mobile phones. For people in rural areas, mobile phones are also essential for accessing job information (Bhavnani et al., 2008). Companies increasingly advertise jobs and other opportunities online and such information is accessed, communicated and shared within one's networks via mobile phone (Goldstuck, 2013). This is particularly important for young rural men, who are under social pressure to find a job in the cities but are excluded from more conventional channels for finding employment (e.g., newspapers ads or in-person enquiries).

Mobile phones may contribute to supporting traditional African values or may help to bring about social change. Traditionally, African cultures are shaped by a sense of shared humanity and communal experience, potentially supported by 'connected presence' (Licoppe, 2013) via mobile phone. In addition to maintaining social contact, mobile phones allow for what Ling (2008) calls micro-coordination of daily lives. Oyedemi (2018) refers to South African youth as partially digital to capture the negative impact of low socio-economic status on many young people's ability to benefit from online participation. Shava and Chinyamurindi (2018) note that social media provides a new avenue for knowledge sharing especially among the youth (see also Dalvit et al., 2014). While computers are often considered mainly a male prerogative, particularly in developing countries, mobiles may have balanced or even tilted the scale in favour of female users (Hilbert, 2011). Research conducted in a South African rural area (Dalvit & Strelitz, 2013) suggests that this may be explained by the fact that women use child grants and

maintenance to buy phones. In other rural African contexts, however, women and children receive phones as gifts, hand-me-downs or short-term loans from friends, family and husbands/fathers, who may then act as a proxy for their use (Burrell, 2010; Hahn & Kibora, 2008; Murphy & Priebe, 2011).

Mobiles in a South African rural area

Geographical location is an important dimension of digital inequality, alongside socio-economic status, age and gender. The urban/rural digital divide in South Africa is compounded by internal migration, lack of infrastructure and high data costs. Powell (2012) notes that urbanisation in the African continent brings people to relatively well-connected metropolitan areas, which further marginalises those remaining in rural areas. Migrants are often men and women in their prime, representing a drain on rural human resources. Mobile phones appear instrumental in advertising opportunities for migration, organising the actual move and sustain the flow of remittances to rural areas which in turn entrenches economic dependency on the cities. In May 2018, the then South African Minister of Telecommunications and Postal Services emphasised the government's plan to invest in ICT infrastructure for township and rural access to realise the country's vision of a widespread broadband communication system by 2030. Over the last decade, mobile phone use in South Africa increased resulting in a drastic uptake even amongst the poorest people in rural areas (Chatikobo & Dalvit, 2019). However, Internet penetration drops to 27% among those who earn below the monthly national average of ZAR 2500 (approx. USD 147) (Goldstuck, 2017). Low literacy levels and lack of ICT skills hamper digital participation by many people from rural and impoverished households, Relatively high costs are associated with mobile technology (Sithole et al., 2013). Besides data costs that are among the highest in the World (Goldstuck, 2010), rural dwellers incur additional expenses such as paying for charging the mobile phone battery and an additional mark-up added by local airtime resellers. The average monthly income in traditional rural areas is around ZAR 800 (approx. USD 47), i.e., less than a third of the national average (Rey-Moreno et al., 2016).

The endemic poverty, outward migration and lack of infrastructure affecting many South African rural areas are exemplified by Dwesa, a small rural community comprising of several villages adjacent to a marine nature reserve situated on the Wild Coast of the former homeland of Transkei in the Eastern Cape, one of the poorest provinces in South Africa (Makofane & Gray, 2007). The community comprises almost exclusively isiXhosa-speakers and the main local activities are subsistence farming and animal husbandry with very limited local commerce. The local population comprises mainly of older people and children as many young men and women of working age migrate to the cities to find jobs (Palmer et al., 2002). Dwesa is approximately 40 kilometres away from the nearest town, Willowvale, which is reachable only via a gravel road. This makes accessing services expensive and time-consuming. Over the past two decades, Dwesa (see Figure 1) has been the site of an ICT-for-development project called the Siyakhula Living Lab. Efforts towards the deployment of ICT infrastructure (internet, computer labs in schools), training of the local community and collaborative development of services are summarised by Chatikobo and Dalvit (2019).

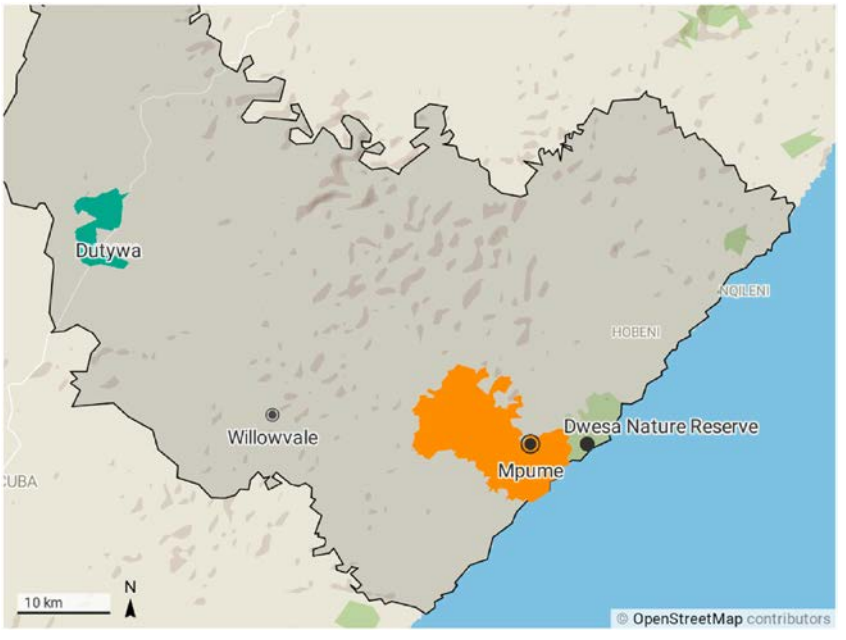

Figure 1. Location of Dwesa (highlighted in orange) relative to the closest town, Willowvale and Dutywa (highlighted in green).

Most households in Dwesa were connected to the electricity grid only in the past decade, but mobile network coverage is almost universal. As shown by a recent survey by Collopen (2016), mobile phones are universally available and social media is the most frequently used form of media in the area. This confirms Mackey's (2016) claim that despite the digital divide, most people in rural areas use their mobile phones to access social media. It is also consistent with Goldstuck's (2017) observation that at the national level, Facebook penetration is similar across all socio-economic levels. It is not clear whether the latter claim refers only to access or also to use and accrued benefits, or whether it applies to differences within a community such as Dwesa. Research conducted in Dwesa indicates that a significant portion of household income is spent on mobile communication – about ZAR 160 (approx. USD 10) against a combined household income of about ZAR 1000 (USD 60) per month (Pade-Khene et al., 2010).

A considerable body of research covers the period from the initial stages of the Siyakhula Living Lab project when networked computer labs were deployed in five local schools, to the current ubiquity of mobiles. As part of an international study including Dwesa, Pejovic et al. (2012, p. 2479) note that 'restricting access to public terminals and workplaces severely hampers the type of applications used online' despite computer labs being open to community members. At the inception of the project, Mapi et al. (2008), noted that socio-economic level (linked to education), age and gender appeared to have a significant effect on the way members of the community adopted ICTs. Teachers adopted ICTs to improve their teaching skills, as well as for personal benefits; for example, being able to access news, do online shopping and use internet banking.

Young people who had completed their studies or at least had some high school education were interested in the SLL. Uneducated community members, however, felt inferior to the teachers and depended on them for help, as they were considered knowledge experts. Multiple surveys indicated that, while youth in Dwesa had far less access to both computers and mobile phones compared to their peri-urban counterparts, mobile Internet access in Dwesa showed an increase of up to 20% a year, even higher than the already impressive national average (Gunzo & Dalvit, 2012).

The mobile experience is quite different from the uncapped broadband internet referred to in much literature from the Global North (Donner, 2008). Dalvit and Miya (2018) note that the formal model for teaching computer literacy did not seem appropriate when it came to mobiles. However, a small group of interested people (mainly women) eagerly attended workshops on the use of mobiles as creative tools, which facilitated community uptake (Pejovic et al., 2012). Contrary to expectations, old people appear to be relatively technologically savvy, and many young mobile users claim to have been inspired or initiated to ICT by their parents or older siblings. As documented by Chatikobo and Dalvit (2019), the mobile Internet experience appears to be often limited to WhatsApp and, more rarely, Facebook. Dalvit (2018) notes that while basic forms of digital literacy enable an increasing number of community members to access the internet, critical use and creation of content depend on one's cultural capital as much as on broadband access (see Pejovic et al., 2012). As noted by Dalvit (2015), some community members empower themselves by adapting mobile phones to their context and personal circumstances. Interviews with local women reveal important but often overlooked uses of mobile phones, for example, to exert covert power in a male-dominated society. Besides economic advantages such as sustaining the flow of remittances and preventing unnecessary trips to the nearest town, mobile phones enabled re-establishing contact with long-lost family members, provided added security and opened access to study or work opportunities.

Methodology

Dwesa is a well-documented site to explore differences within a marginalised rural community in South Africa. The present study seeks to review, interrogate and complement existing research by reflecting on how socio-economic status, age and gender influence the way people in Dwesa access, use and benefit from mobile media. This was achieved indirectly by investigating self-reported general experiences with mobile phones. We employed focus groups, interviews and observation as data collection methods (Gill et al., 2008; Kawulich, 2012; Rabiee, 2004). Three focus groups were organised with early adopters, majority and late/non-adopters identified as people who owned a smartphone for five or more years, for six months to five years and for less than six months/not at all, respectively. The five-year threshold is based on Goldstuck's (2010) Digital participation Curve, that is, the period from first access to an Internet-enabled device to full online participation. Semi-structured interviews were conducted with 17 participants identified through purposive as well as snowball sampling, capturing a wide range of experiences in terms of socio-economic status/education, age and gender (see Etikan et al., 2016). The participants reflected comparable proportions of employed to unemployed (eight and nine), women to men (11 and six) and young to old (seven and

10 – based on a threshold of 35 years of age). Details of each individual participant (anonymised through pseudonyms) are provided in the following section. We complemented and triangulated our data through overt observation (Kawulich, 2012) to understand how participants interact with each other, what is important to them and how they organise and prioritise their day to day activities. During data analysis, we paid particular attention to possible evidence of mobile phones reconfiguring or entrenching local power dynamics.

As most researchers within the Siyakhula Living Lab, we spent extended periods living in Dwesa and sharing some of the challenges experienced by local people. Despite holding a relatively privileged position as scholars, some of the authors share a background comparable to that of the research participants. An interpretive orientation and a qualitative methodological approach placed emphasis on the perspective and lived experience of participants (Babbie & Mouton, 2001). Basic communicative proficiency in isiXhosa – the main language in Dwesa – enabled us to interact informally with local people and to pose questions/understand answers. Still, two translators were engaged to capture linguistic nuances in focus groups and interviews (see Squires, 2009). Besides language, conducting research in Dwesa presented specific contextual challenges such as the need to explain informed consent letters and justify the use of a recorder. Our past involvement as facilitators in ICT literacy courses and workshops on the use of mobile phones as creative tools presented a useful entry point in the community but had to be managed, for example, by limiting the number of participants who had taken part in these initiatives and by acknowledging and reflecting on possible biases (see Mason, 2010). Pseudonyms were used at all times including in this article. While a small-scale qualitative approach is consistent with the exploratory nature of our goal, one of the limitations of the present study is that its findings cannot be uncritically generalised to other contexts. Such limitation could be addressed by replicating such study across several different rural communities, as done by Pejovic et al. (2012).

Findings and discussion

Socio-economic status is inextricably linked to level of education. Teachers are part of Dwesa's socio-economic elite, and since the beginning of the SLL project have acted as ICT champions for the community. Alongside with local business owners, they can afford higher-end phones and are generally early adopters. Nevertheless, the late/non-adopter group included a teacher, a local business owner and a Dwesa reserve officer, adding complexity to the relationship between innovativeness and socio-economic status as noted by Bozeman and Rogers (2002). Somewhat surprisingly, for such a generally poor community, initial purchase cost did not seem to prevent people from buying a smartphone. This is consistent with generally decreasing prices all over the world, including South Africa. Mobile communication and data costs, however, were identified as an issue, particularly among late adopters. Although most people in this group only had a feature phone, only Andiswa, who is over the age of 65 and relies on government social grants for income, cited initial purchase cost as the reason for not having an internet-enabled mobile device. Other late adopters stated that even though they could afford to buy a smartphone, the cost of using the devices was beyond their monthly budgets. Bulelwa, a mature woman, unemployed and living with her two sons, elaborated that:

> These phones are a trap. Today you buy R20 airtime and tomorrow it is finished. Next day you buy more airtime, and by the time it is month end, people have spent their food budget on these phones … things were simpler and cheaper back then … yes, it was difficult, but now we are just wasting.

Young people acquire social status according to the type of mobile devices they can afford and the applications they can use. They consider tablets as fashionable because of their bigger screen size, as Cebile, a young woman who recently completed high school and unemployed, confessed *'this is the trend nowadays, a bigger screen is better'*. Some increased their prestige by playing music through connected Bluetooth speakers. Despite being a young, educated and relatively well-off man, Dumisani expressed a critical stance to justify his choice to use only a feature phone by remarking that 'People are busy with their phones all the time. I do not want to be like that. I will rather have my "tilili" and still be able to talk to others.' Despite criticism, a recognition of the importance of mobile skills was shared by young and old people alike. Andiswa emphasised the link between physical and epistemological access by stating that:

> I'm old now, but I think [ICT training workshops] are important in improving the use of [mobile phones]. When you go to town, you just buy [mobile phones] without understanding how they work, so the workshops helped a lot here. Even though I did not attend, but my grandchildren have shown me how to use them and if I do not know anything, I ask them.

Relatively poor but skilled users in Dwesa exploit the Bluetooth capability of their devices for sharing pictures, music and videos to bypass the data costs of sharing or downloading content via the internet. Past research (see Dalvit, 2015) highlights a tendency to substitute voice calls and SMS with cheaper alternatives such as WhatsApp messages. Cebile captured this as 'I use WhatsApp to talk to many people because it is cheap. If I buy airtime, I buy for data so I can chat with my friends and family who are not here'. More affluent respondents occasionally preferred to incur the costs of a phone call to feel virtually present or to have an immediate response. Endinako, a young man and self-employed, stated: 'When I call my girlfriend it is not the same as when I send her an SMS. When I call it is like I am there'. Fezile, a mature female teacher at a local school, said: 'It is better to just call than sending a message and not knowing when the person will reply'. Gcobisa, who is also a female teacher, noted that instant messaging applications like WhatsApp possessed an advantage over SMS and voice calls, which are considered costly. She stated that:

> Basically, with WhatsApp, all I need is data bundles which are way cheaper than buying airtime. With airtime, you can only call and send a text, and it is expensive … but with WhatsApp, I can send voice notes, I can send pictures and videos and if I'm on Wi-Fi, I can even call. But I think voice notes are the best because we have long discussions through this and it does not use a lot of data. I now only use airtime to call if there is anything urgent or in an emergency.

Women appear to be at the forefront of using mobile and social media to maintain contact with members of the community within as well as outside Dwesa. Hlonela, who is young and employed, stated that she uses WhatsApp with her group of friends who are in Dwesa. In her own words: 'Sometimes we use it (WhatsApp) for sending each

other information, like to know what is going on in the area, news and gossip'. Regarding communication with the city, she said:

> My cousin (in Cape Town) and I always talk about fashion and clothes … I see the latest styles from her and I buy that when I have money … She is good at picking nice things and colours, she sends that to me (via WhatsApp).

While the use of WhatsApp as a cheaper alternative to voice calls and SMS emerged in previous research (see Buthelezi & Dalvit, 2019; Dalvit, 2015), some female respondents highlighted specific contextual factors, such as distance from urban centres and limited disposable income. Isipho, a mature unemployed woman, explained that mobile media enabled her to communicate frequently with her daughter in East London, a city about 250 kilometres from the area. Comparing with a decade ago, she stated that because of poor road conditions which make the trip long and expensive, she would communicate with her daughter through letters and sometimes using the telephone when she managed to visit the nearby town. Isipho further stressed how the lower cost associated with social media made the difference in her relationship with her daughter living in the city:

> I used to get really worried and you know … it was not good for my heart. When your daughter is far away, and you are not there to see for yourself if they are fine, it bothers you. Now I can talk to her on WhatsApp and it has reduced my blood pressure …

Women are the backbone of the local social and economic life. Mobile phones are instrumental in the micro-organisation of events such as ceremonies and funerals. The role of the mobile phone is important in this regard when taking into consideration the distance to town where the groceries for the funeral were bought. Mobile technology is particularly important in a context characterised by scarce resources as it supports networks of mutual borrowing (e.g., of food and household items), financial support (including lending each other small amounts of money, for example, bus fares and airtime) between households. As noted in past research (Buthelezi & Dalvit, 2019; Kavhai, 2010) relatives and friends in the cities provide support through the transfer of remittances and buying airtime and data bundles. Jongikhaya, a mature unemployed man, explained the advantage of using a mobile money service provided by the local supermarkets to receive money from family members and close friends by saying: 'My older brother sends money home for groceries every month. He deposits the money at Shoprite or Spar … he then sends me the withdrawal numbers (via phone) … now I don't need to have a bank account'.

Most (particularly elderly) women are involved in stokvels, that is, informal savings clubs where members either contribute a fixed amount of money into a shared pool and distribute equally monthly or burial funds which assist with funeral arrangements when one of the members loses a loved one. Buthelezi and Dalvit (2019) noted the role of WhatsApp groups in sustaining and tracking contributions. Mobile phones contribute to the growth in numbers of the various groups, but stokvels are generally considered as meant exclusively for women. When asked to elaborate, Khwezi, a mature unemployed woman, said: 'I don't know, but it's just for our families. Men cannot sit and put money together and buy groceries'. Besides its core function, the Ubulumko Babafazi ('women's wisdom' in isiXhosa) stokvel WhatsApp group also shares memes,

circulate motivational quotes and share videos. Lakhiwe, a mature unemployed woman, provided examples and displayed some critical digital literacy when she stated that:

> 'Sometimes someone sends these messages that want you to forward messages to ten other people and God will bless you, I don't like them … ' sometimes we share nice messages about strength, God, and faith that maybe motivate you and inspire you to wake up in the morning and go work for your kids'. 'If someone has a funny video or a shocking video that we might want to see then the person shares it with the group.'

In an area characterised by extremely high unemployment, job opportunities are precious, to the extent that temporary Government positions are often rotated between households. The present study confirms reliance on mobile and social media to find work in the cities (see Buthelezi & Dalvit, 2019; Chatikobo & Dalvit, 2019) but also highlights the role of local organisations – such as the aforementioned Ubulumko Babafazi – as instrumental in circulating information about vacancies. Lakhiwe, for example, stated that: 'You know the jobs that are open now at the reserve, many of our children applied for them because we shared the information on our group and then they went to the reserve to send their CV's.' Young people in one of the villages of Dwesa formed a youth club called the Mpume Community Organisation (MCO). Although It is based mainly on social, sporting and cultural interactions, the MCO's Facebook page also shares information on jobs, funding opportunities, and tertiary education information. The information shared on the Facebook page is also sent out to the WhatsApp group. Mpumelelo, a mature man and an MCO member, highlighted the usefulness of accessing content shared on the MCO Facebook page of the organisation by remarking that: 'Now that I have a better phone there are many things that I see on the page. The page is not for playing and entertainment only, serious things are posted there, I like it … '.

The Mpume Community Organisation provides an example of the use of digital and social media to promote cohesion and solidarity with members both in and outside Dwesa. Ntsika, a young man and a founding member of MCO, said this about group membership:

> There are many people in different places such as East London, uMthatha, Cape Town that are part of the organisation. Without phones, it would be hard to get so many activities done … WhatsApp and Facebook have helped the number of members grow and we are everywhere. All people from Mpume can be in touch from anywhere.

One of the goals of the organisation is to promote peace between youth from different villages by organising sports events. While such a small and relatively isolated community may appear peaceful and homogeneous, village rivalries in the past escalated to physical violence and mutual no-go zones, particularly for young men. As written on the Facebook page 'The main goal which we're planning to achieve by organising this tournament is to unite all the area's around Mpume'. As noted by Chatikobo and Dalvit (2019), there are few opportunities for entertainment in the area and sport represents a positive alternative to violence and drugs.

Family WhatsApp groups, where issues of family concern are discussed, are important to organise events, in an emergency or for moral support. Such groups show how digital media may exclude people or entrench cultural differences along the age dimension. For example, Oyintando, an unemployed young man, specified that although their

WhatsApp group has some 'older' members like his aunt, it consists of mainly 'younger' family members who use this social networking application. They then take it upon themselves to pass on the communication they have on WhatsApp to older family members either by word of mouth, phone calls or SMS. Some participants also expressed the belief that WhatsApp and other forms of chats, such as Facebook Messenger are more useful in informal settings or when communicating with people of one's age group. As a young woman, Phelisa emphasised the view that WhatsApp is a more social platform for younger individuals. She said:

> You must know who to talk to, and where. There must be respect. For example, my sister is older than me and we talk on WhatsApp, but I can't chat with my aunt on WhatsApp. We must call each other or I must go to her.

In a traditional rural area such as Dwesa, social media has the potential to disrupt culturally defined protocols of communication such as communicating that somebody passed away or showing respect for elders (see Chatikobo & Dalvit, 2019). A WhatsApp group of local teachers attending a professional development course provides an example of how disruption can be beneficial. Qhamani, a mature woman and a local teacher, noted that her results improved significantly after the establishment of a class WhatsApp group for a professional development course and attributes this to increased opportunities for interpersonal communication. She stated that:

> Before we had the WhatsApp group, student-teachers didn't feel comfortable to call the lecturers because we did not want to bother them, now we can even talk to them privately on WhatsApp maybe if we don't want to bother the entire class.

Conclusions

In this paper, we covered a variety of mobile experiences within a South African rural community. While reference to uses and benefits in the political domain were absent, our findings confirmed and added nuances to the complex relationships between economic aspects and socio-cultural ones. Those who can afford it, ranging from members of the local elite (e.g., teachers) to relatively poor young people, tend to purchase higher-end devices because of the associated status. As noted in the literature, data costs represent an even more significant barrier than device costs in terms of physical access. ICT skills, mainly associated with young people, are employed to avoid costs. The example of using WhatsApp instead of voice calls and SMS, extensively documented in the literature, was linked to increased opportunities for interactions across physical distance. WhatsApp groups also reflect already existing personal or professional relationships, either entrenching or reconfiguring culturally defined protocols of communication. WhatsApp and, to a lesser extent and mainly among the youth, Facebook platforms of local groups and organisations often evolve beyond their originally intended purpose and become a forum to exchange relevant information (e.g., job opportunities). The present study shows how sustaining existing social relationships within and outside the community through mobile and social media is particularly important in an area characterised by poverty and mutual reliance. For cultural reasons, women appear to play a leading role, an aspect which warrants specific in-depth research. Some youth and older women identified issues such as social alienation and spam messages, putting into

question the almost exclusive focus on the benefits accruing from digital inclusion in rural African contexts informing much of the literature discussed above. In conclusion, while highlighting a number of common features of mobile access, use and accruing benefits (as well as some drawbacks) among community members, the present study suggests significant differences along socio-economic status, age and gender lines as well as length of experience of and orientation towards technology. In a future study, we intend to explore particularly the latter aspect through a decolonial lens.

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References

Babbie, E., & Mouton, J. (2001). *The practice of social research*. Oxford University Press Southern Africa.

Bhavnani, A., Chiu, R. W. W., Janakiram, S., Silarszky, P., & Bhatia, D. (2008). *The role of mobile phones in sustainable rural poverty reduction* (Vol. 22).

Botelho, A. J., & da Silva Alves, A. (2007). *Mobile use/adoption by micro, small and medium enterprises in Latin America and the Caribbean. Background paper for 'mobile opportunities: Poverty and telephony access in Latin America and the Caribbean'*. DIRSI and IDRC.

Bozeman, B., & Rogers, J. D. (2002). A churn model of scientific knowledge value: Internet researchers as a knowledge value collective. *Research Policy*, *31*(5), 769–794. https://doi.org/10.1016/S0048-7333(01)00146-9

Burrell, J. (2010). Evaluating shared access: Social equality and the circulation of mobile phones in rural Uganda. *Journal of Computer-Mediated Communication*, *15*(2), 230–250. onlinelibrary.wiley.com.wam.seals.ac.za/doi/10.1111/j.1083-6101.2010.01518.x/pdf. https://doi.org/10.1111/j.1083-6101.2010.01518.x

Buthelezi, M., & Dalvit, L. (2019). *Exploring how mobile phones mediate bonding, bridging and linking social capital in a South African rural area* (B. Mutsvairo & M. Ragnedda, Eds.). Amsterdam University Press.

Butler, R. (2015). *Cellphone may help save Africa*. http://www.mongababy.com/2005/0712.rhett.butler.html

Castells, M. (2000). *The rise of the fourth world. The global transformations reader*. Blackwell.

Chatikobo, T., & Dalvit, L. (2019, May 24–26). *Services, schools and skills: Mobile media and local development in a South African rural area*. Proceedings of the 4th International Conference on Smart Learning Ecosystems and Regional Development, Rome.

Chiumbu, S. (2012). Exploring mobile phone practices in social movements in South Africa – The Western Cape anti-eviction campaign. *African Identities*, *10*(2), 193–206. https://doi.org/10.1080/14725843.2012.657863

Collopen, N. (2016). *An exploration of media and mobile usage ecosystems in marginalised areas: The case of Dwesa* [Unpublished Bachelor Honours paper]. School of Journalism and Media Studies, Rhodes University.

Cox, K., Marcellino, W., Bellasio, J., Ward, A., Galai, K., Meranto, S., & Paoli, G. P. (n.d.). *Social media in Africa executive summary*.

Dalvit, L. (2015). Mobile phones in rural South Africa: Stories of empowerment from the Siyakhula living lab. In L. E. Dyson, S. Grant, & M. Hendriks (Eds.), *Indigenous people and mobile technologies* (pp. 219–236). Routledge.

Dalvit, L., Kromberg, S., & Miya, M. (2014, November 17–21). *The data divide in a South African rural community: A survey of mobile phone use in Keiskammahoek*. Proceedings of the 3rd National South African E-Skills Summit, Cape Town.

Dalvit, L., & Miya, M. (2018). *Becoming a mobile internet user in a South African rural area: The case of women in Dwesa* (pp. 101–111).

Dalvit, L., & Schoon, A. (2018). *Siyashuta! Capturing police brutality on mobile phones in South Africa* (pp. 10–1007).

Dalvit, L., & Strelitz, L. (2013, November 18–19). *Media and mobile phones in a South African rural area: A baseline study*. Proceedings of the Emerging Issues in Communication Policy and Research Conference- Refereed Papers, Canberra.

Donner, J. (2008). Shrinking fourth world? Mobiles, development, and inclusion. In J. E. Katz (Ed.), *Handbook of mobile communication studies* (pp. 29–42). MIT Press.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

Etzo, S., & Collender, G. (2010). The mobile phone 'revolution' in Africa: Rhetoric or reality? *African Affairs*, *109*(437), 659–668. https://doi.org/10.1093/afraf/adq045

Fassil, R. (2009). *Making ICT work for pro-poor development: a critical evaluation of initiatives in three Sub-Saharan African countries*. Herstellung und Verlag: Books on Demand GmbH.

Gelb, E., Maru, A., Brodgen, J., Dodsworth, E., Samii, R., & Pesce, V. (2008, August 24–27). *Adoption of ICT enabled information systems for agricultural development and rural viability*. Pre-Conference workshop summary of ICT Adoption Workshop at the IAALD-AFITA-WCCA Conference 2008 organised by the Global Forum on Agricultural Research (GFAR), Tokyo.

Gigler, B. (2011). Informational capabilities: The missing link for understanding the impact of ICT on development. In B. S. Gigler & S. Bailur (Eds.), *Closing the feedback loop - Can technology bridge the accountability gap?* (pp. 17–42). The World Bank.

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, *204*(6), 291–295. https://doi.org/10.1038/bdj.2008.192

Goldstuck, A. (2010). *Internet access in South Africa 2010: A comprehensive study of the internet access market in South Africa*. World Wide Worx.

Goldstuck, A. (2013). *The many needs of internet speed*. http://www.gadget.co.za/pebble.asp

Goldstuck, A. (2017). *Internet access in South Africa 2017*. World Wide Worx. http://www.worldwideworx.com/wp-content/uploads/2017/07/Exec-Summary-Internet-Access-in-SA-2017.pdf

Gunzo, F., & Dalvit, L. (2012, February 28–29). *A survey of cell phone and computer access and use in marginalised schools in South Africa*. Proceedings of M4D2012, New Delhi (pp. 232–243).

Gurstein, M. (2003). Effective use: A community informatics strategy beyond the digital divide. *First Monday*, *8*(12). https://doi.org/10.5210/fm.v8i12.1107

Hahn, H. P., & Kibora, L. (2008). The domestication of the mobile phone: Oral society and new ICT in Burkina Faso. *The Journal of Modern African Studies*, *46*(1), 87–109. https://doi.org/10.1017/S0022278X07003084

Hilbert, M. (2011). Digital gender divide or technologically empowered women in developing countries? A typical case of lies, damned lies, and statistics. *Women's Studies International Forum*, *34*(6), 479–489. https://doi.org/10.1016/j.wsif.2011.07.001

Kavhai, M. (2010). *The impact of ICT in Dwesa, a rural area in South Africa* [Masters dissertation]. University of Fort Hare.

Kawulich, B. B. (2012). *Collecting data through observation. Doing social research: A global context* (pp. 150–160).

Kellerman, A. (2006). *Personal mobilities*. Routledge.

Lacohée, H., Wakeford, N., & Pearson, I. (2003). A social history of the mobile telephone with a view of its future. *BT Technology Journal*, *21*(203–211), 10–1023. https://doi.org/10.1023/A:1025187821567

Lawack, V. (2012). *The legal and regulatory framework of mobile banking and mobile payments in South Africa* (pp. 318–327).

Licoppe, C. (2013). Merging mobile communication studies and urban research: Mobile locative media, "onscreen encounters" and the reshaping of the interaction order in public places. *Mobile Media & Communication*, *1*(1), 122–128. https://doi.org/10.1177/2050157912464488

Ling, R. (2008). *New tech, new ties: How mobile communication is reshaping social cohesion*. MIT Press.

Mackey, A. (2016). Sticky emotional connections: Young people, social media, and the re-orientation of affect. *The Journal of South African and American Studies*, *17*(2), 156–173. https://doi.org/10.1080/17533171.2016.1176398

Makofane, M. D. M., & Gray, M. M. A. (2007). Factors hindering the successful outcome of rural community projects. *Social Work/Maatskaplike Werk*, *43*(3), 201–208. https://doi.org/10.15270/43-3-269

Manamela, M. G., & Rambuda, R. (2016, October 26–28). *Provision of information in South Africa: Issues of bias, access, transparency and accountability*. SAAPAM Limpopo Chapter 5th Annual Conference Proceedings, Mokopane.

Mapi, T. P., Dalvit, L., & Terzoli, A. (2008). Adoption of ICTs in a marginalised area of South Africa. *Africa Media Review*, *16*(2), 71–86.

Mason, M. (2010). *Sample size and saturation in PhD studies using qualitative interviews. Forum Qualitative Sozialforschung*. https://doi.org/10.17169/fqs-11.3.1428

Moyo, L. (2020). The end of the public sphere: Social media, civic virtue, and the democratic divide. In M. Ragnedda & A. Gladkova (Eds.), *Digital inequalities in the global south* (pp. 269–285). Palgrave Macmillan.

Murphy, L. L., & Priebe, A. E. (2011). My co-wife can borrow my mobile phone!' Gendered geographies of cell phone usage and significance for rural Kenyans. *Gender, Technology and Development*, *15*(1), 1–23. gtd.sagepub.com.wam.seals.ac.za/content/15/1/1.full.pdf https://doi.org/10.1177/097185241101500101

Mutsvairo, B., & Ragnedda, M. (Eds.). (2019). *Mapping the digital divide in Africa: A mediated analysis*.

Odendaal, N., Duminy, J., & Saunders, P. (2008). *Is digital technology urban: Understanding inter-metropolitan digital divides in South Africa*.

Oyedemi, T. (2018). (De)coloniality and South African academe. *Critical Studies in Education*, *1*(17), 10–1080. https://doi.org/10.1080/17508487.2018.1481123

Pade-Khene, C., Palmer, R. K., & Kavhai, M. (2010). A baseline study of a Dwesa rural community for the Siyakhula information and communication technology for development project: Understanding the reality on the ground. *Information Development*, *26*, 265–288. https://doi.org/10.1177/0266666910385374

Padovani, C., & Nordenstreng, K. (2005). From NWICO to WSIS: Another world information and communication order? *Global Media and Com-Munication*, *1*(3), 264–272. https://doi.org/10.1177/1742766505058123

Palmer, R., Timmermans, H., & Fay, D. (2002). *From conflict to negotiation: Nature-based development on South Africa's wild coast*. Human Sciences Research Council.

Pejovic, V., Johnson, D. L., Zheleva, M., Belding, E., Parks, L., & Van Stam, G. (2012). Broadband adoption the bandwidth divide: Obstacles to efficient broadband adoption in rural sub-Saharan Africa. *International Journal of Communication*, *6*, 25.

Pierskalla, J. H., & Hollenbach, F. M. (2013). Technology and collective action: The effect of cell phone coverage on political violence in Africa. *American Political Science Review*, *107*(2), 207–224. https://doi.org/10.1017/S0003055413000075

Powell, A. C. III. (2012). *Bigger cities, smaller screens*. http://cima.ned.org/publications/bigger-cities-smaller-screens-urbanization-mobile-phones-and-di

Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, *63*(4), 655–660. https://doi.org/10.1079/PNS2004399

Rashid, A., & Elder, L. (2009). Mobile phones and development: An analysis of IDRC-supported projects. *The Electronic Journal of Information Systems in Developing Countries*, *36*(2), 1–16. https://doi.org/10.1002/j.1681-4835.2009.tb00249.x

Rey-Moreno, C., Blignaut, R., Tucker, W. D., & May, J. (2016). An in-depth study of the ICT ecosystem in a South African rural community: Unveiling expenditure and communication patterns. *Information Technology for Development*, *22*(sup1), 101–120. https://doi.org/10.1080/02681102.2016.1155145

Sey, A. (2011). *'We use it different, different': Making sense of trends in mobile phone use in Ghana*. Media and Society.

Shava, H., & Chinyamurindi, W. T. (2018). Determinants of social media usage among a sample of rural South African youth. *SA Journal of Information Management*, *20*(1), 1–8. https://doi.org/10.4102/sajim.v20i1.827

Sife, A. S., Kiondo, E., & Lyimo-Macha, J. G. (2010). *Contribution of mobile phones to rural livelihoods and poverty reduction in Morogoro region*.

Sithole, M., Moses, C., Davids, Y., Parker, S., Rumbelow, J., Molotja, N., & Labadarios, D. (2013). Extent of access to information and communications technology by the rural population of South Africa. *African Journal of Science, Technology, Innovation and Development*, *5*(1), 71–84. https://doi.org/10.1080/20421338.2013.782144

Squires, A. (2009). Methodological challenges in cross-language qualitative research: A research review. *International Journal of Nursing Studies*, *46*(2), 277–287. https://doi.org/10.1016/j.ijnurstu.2008.08.006

UNDP. (2001). *Human development report 2001: Making new technologies work for human development. In Human Development Report 2001*. https://doi.org/10.12828/77420

Ussher, Y. A. (2015). *The economic and social effects of mobile phone usage: The case of women traders in Accra* [Doctoral dissertation]. Stellenbosch University.