

Media and Mobile Phones in a South African Rural Area

A Baseline Study



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Abstract

In South Africa, access to information remains unequal and often hampered by language barriers, poor infrastructure and endemic poverty, particularly among members of rural and peri-urban communities. The government recognises the potential of media and information and communication technology (ICT) to promote socio-economic development and social cohesion. In this paper we discuss the findings of a survey on media and ICT (particularly mobile phones) in a rural community. The area is the site of a number of interventions and research projects by a nearby university. Our study provides a baseline to measure their impact and identify future trends. Data from 300 households was collected through a set of open-ended, as well as closed, questions. Language emerged as an important factor in media consumption. Broadcast media were more common than print and people showed a preference for news, followed by entertainment. While computers were virtually non-existent, mobile phones were omnipresent and most respondents could be considered experienced users. Although the costs associated with mobile phones were key concerns, most households had access to at least one phone with advanced features such as internet connectivity. Different activities performed on mobile phones reflected different gender and generational roles. Our work indicates that further research is needed on quality and frequency of media consumption as well as a more detailed study of mobile phone use. Research along the age and gender dimensions promises to yield interesting results. A qualitative approach is best suited for such in-depth investigation.

Keywords: mass media in South Africa; rural communication; minority media; mobile phones; age and gender

Introduction

The South African media landscape is undergoing significant transformations that have implications for communication policies. Redressing the inequalities of the past is of paramount importance and recent violent confrontations between police and protesters have brought this issue into focus. Language barriers and socio-economic differences still affect access to information and meaningful participation. Given its geographical and social diversity, South Africa provides examples of trends found in developed as well as developing countries. Formulating a comprehensive strategy for its vast rural areas, where the majority of the population lives, is key to future stability and economic sustainability. Media and information and communication technology (ICT) have a key role to play.

In this paper we present and discuss the findings of a questionnaire survey on media and mobile phones in a rural area in South Africa. The area is representative of many rural African realities and has been the site of extensive ethnographic research in the past (De Wet, 1989). It has recently become the site of several

interventions and research projects by a nearby university. Part of this endeavour is to foster the development of community media and to explore the potential of ICT for the socio-economic development of the area.

The current study represents an initial step in understanding present diffusion and consumption of media as well as use of ICT (particularly mobile phones). The instrument used allows for comparison with similar data collected in other rural and peri-urban areas in South Africa. Our findings will act as a baseline to measure the impact of future projects and capture developing trends. The paper starts with a general overview of media and ICT penetration in South Africa, with a specific focus on those aspects relevant to our survey. We then describe the methodology used and discuss the findings. Our conclusions summarise the key points and provide some guidelines for future research.

Context

In this section we selectively rely on the chronological taxonomy of mass media by Ahonen (2008). Some of the mass media identified by this author (e.g. cinema) are not present in the area under consideration while others (e.g. recordings) are grouped with other media (e.g. television). Following McLuhan's distinction between "hot" and "cold" media (see McLuhan & Zingrone, 1995), we consider traditional (i.e. press and broadcast) as well as interactive (i.e. networked computers and mobile phones) media while noting the points of convergence.

The Press

According to a survey by the South African Audience Research Foundation (SAARF, 2012), approximately 50% of all South Africans over the age of 15 years read newspapers. The print media landscape includes 22 daily and 25 weekly major urban newspapers as well as 400 regional and community newspapers (SA Info, 2013). While publications targeting white middle class audiences seem to follow a stagnating trend seen in most developed countries, press targeting working class and specifically black South Africans (e.g. *The Daily Sun*) are rapidly increasing in circulation, consistent with trends observed in other developing countries (Franklin, 2008; see also Steenwald & Strelitz, 2010).

Publications can be categorised according to their area of circulation, language and readers. Most newspapers are in English (e.g. *The Sunday Times*, circulated nationally, and *The Herald* in the Eastern Cape Province). Some are published in Afrikaans (e.g. *Beeld* and *Die Berger*) and a few in African languages such as isiZulu (e.g. *Isolezwe*). Some regional daily newspapers (e.g. *The Daily Dispatch*) have a weekly insert in isiXhosa. Besides language barriers, low levels of literacy and lack of disposable income hamper newspaper reading in poor rural communities. The latter in particular determines newspaper sharing among different people and the subsequent discrepancy between the number of readers and copies sold.

Bosch (2010) notes how the digital revolution challenged South African publications to formulate new strategies and open up to new audiences. A number of newspapers (e.g. *Mail* and *Guardian*) have an online presence and general as well as specialised online news portals exist (e.g. *News24* and *ITWeb*). Online and mobile spaces hold potential for hyperlocal media organisations (see Dalvit & Kromberg, 2012). Access to the internet in marginalised communities is limited and in most cases quite expensive (Abrahams & Goldstuck, 2012). As noted by Wasserman (2010), tabloid journalism is an important phenomenon in South Africa. Magazines targeting a black readership (e.g. *Drum* and *Bona*) are widely read. Wright, Noble and Magasela (2008) note that only 20% of South Africans consider magazines and newspapers as essential, as opposed to the 77% and 72% who feel that way about radio and television respectively.

Broadcasting

The broadcast media landscape is characterised by the distinction between public, commercial and, particularly in the case of radio, community players. At a national level, radio stations such as SAFM and Mhlobo Wenene broadcast in English and isiXhosa respectively. At a provincial and local level one finds commercial radio stations, such as TrueFM and AlgoaFM, coupling the use of English with isiXhosa and Afrikaans respectively. Community radio stations are often monolingual and with limited geographical reach. Universities often have campus radio stations, which reach both students and people in neighbouring areas. The television landscape consists of three South African Broadcasting Corporation (SABC) channels operating all 11 official languages (in different measures), a commercial channel – E.TV – and two satellite TV operators – Multichoice and TopTV.

South African broadcast media offer a wide selection of programs ranging from soaps and talk shows to news and sport. The politicised role of the media under apartheid might explain an interest in news and political affairs (see Kivikuru, 2006). Popular culture has been an angle for research into soap operas and drama in both radio and TV (Ives, 2007; Gunner, 2000). American influence is noticeable with the presence of foreign soapies (Barns, 2003), as well as the American cultural influence on locally produced programs such as *Generations* (see Dolby, 2006; Barnard, 2008). Cultural adaptation efforts are mainly limited to the use of South Africa's Indigenous languages with English subtitles (Msimang, 2008). Indigenous productions such as *Muvhango* and *Yizo-Yizo* are also fairly popular.

Convergence has implications for media consumption in marginalised areas. Armstrong and Collins (2011) note how 4.5 million low-income households will effectively determine the pace and success of digital migration. Satellite TV is becoming increasingly attractive for members of marginalised communities for practical as well as symbolic reasons (see Noble & Wright, 2013). Due to its pervasiveness, radio appears to have the potential to bring the advantages offered by new technologies to marginalised communities (see Megwa, 2007). Listening to radio on a mobile phone is becoming a popular activity among rural and peri-urban South African youth (Gunzo & Dalvit, 2012).

Computers

According to Wright et al. (2008) access to, or ownership of, a computer is considered essential by 28% of the South African population (comparable to a DVD player or access to a local cinema). According to Research on ICT in Africa (RIA, 2011), only 15% of all households had a working computer, while only five percent reported having a working internet connection. South Africa has one of the best rates of internet penetration on the continent, estimated at 10%, although Goldstuck (2013) points out government responsibilities in a decreasing world ranking. This author also notes that an emphasis on community, rather than household, access needs to be reconsidered. An earlier report by Tlabela, Roodt, Paterson and Weir-Smith (2007) highlights the differences between provinces and between urban and rural areas. In the latter, ICT penetration is often close to the African average.

The South African Government is committed to providing universal access to ICT (Oyedemi, 2009). This goal is pursued mainly through the establishment of public telecentres and school computer laboratories through which many poor South Africans access computers and the internet. Telecommunication operators are also compelled to provide services to low-income communities as part of their licencing requirements.

The distinction between physical and epistemological access to ICT is important. Goldstuck (2010a, 2010b) notes that it takes a certain period (approximately five years) from the acquisition of an internet-enabled device to actual participation online. This would mean that, despite government goals to provide universal access to broadband by 2015, meaningful participation on a large scale by those who gain access cannot be realistically expected before 2020. When conducting research in rural areas, it is important to take a dynamic approach considering previous exposure to technology. As noted by Donner and Gitau

(2009), for a growing number of South Africans such experience is gained primarily through mobile phones.

Mobile Phones

As the most pervasive ICT among all sectors of society, mobile phones have a key role to play in promoting access and participation. In South Africa, as in other parts of the developing world, people often have access to a phone they do not own (James, 2011). Kreutzer (2009) notes the high levels of mobile penetration among urban youth and the similarity between owners and those who access shared mobile phones. This author also highlights a high daily internet use via a mobile phone (68%), the popularity of instant messaging (e.g. Mxit) and a growing use of creative multimedia features such as taking pictures and videos. Although traditional media were still preferred, a substantial percentage (28%) consumed media online.

Alba (2008) notes the specific challenges of mobile penetration in rural areas. In Sub-Saharan Africa, network coverage seems to be an important factor (Buys, Dasgupta, Thomas & Wheeler, 2009). For poor communities, tariffs are also something to consider in the choice of a mobile network operator (Hodge, 2005). More than 90% opt for a prepaid solution because not everybody has a stable salary and a bank account as required for contracts. Relatively high interconnection charges make it worthwhile for people to choose the same operator as their friends and family or to swap SIM cards according to the person called (Esselaar & Weeks, 2008; see also Chepken, Blake & Marsden, 2013). It should also be noted that people who use more than one SIM card might be considered as multiple users in big data research (see boyd & Crawford, 2011). In South Africa, the main mobile operators are MTN and Vodacom with smaller competitors, Cell C, 8ta and Virgin Mobile, controlling a smaller portion of the market.

Our study builds on previous quantitative work on media, ICT and mobile use in marginalised areas in South Africa. In particular, we considered surveys in peri-urban and rural areas with school-going youth (Kreutzer, 2009; Gunzo & Dalvit, 2012) and in rural households (Pade-Khene, Palmer & Kavhai, 2010; Cristoferi & Dalvit, 2013). While two of the surveys focused specifically on the behaviour of young adopters, little is known about intergenerational trends and differences. Differences in behaviour and activities between genders are also rarely captured in household surveys. We identified four clusters of activities commonly performed on mobile phones: communication (voice and SMS); multimedia (playing music, taking and viewing pictures and short videos); networked (web browsing, email and social networking); and money-related activities (airtime transfer and mobile banking).

Methodology

In this section we briefly outline the methodological aspects of our study. Household survey using an orally-administered questionnaire is an established practice in research on ICT penetration in rural areas (see Pade-Khene et al., 2010). We limit ourselves to a brief overview of the research site and data collection process. Some reflections on methodological aspects are provided in the findings section and in the conclusions.

Site

Keiskammahoek is a small rural town in the Amathole district in the Eastern Cape Province of South Africa. The town is surrounded by a number of villages and peri-urban settlements. The area presents a combination of flat and mountainous landscape. The latter in particular has implications for mobile network coverage as well as reception of TV and radio signals. The vast majority of the population is black and isiXhosa speaking with various levels of proficiency in English as a second or third language.

The economy of Keiskammahoek relies mainly on government grants, remittances and subsistence farming. The population has been steadily declining because of internal migration towards urban centres. Many villages are still without basic services such as water and sanitation. However, in recent years, the area has become a centre of attention by an American donor and various departments at a nearby university. The donor installed modern ICT infrastructure in a local school, rendering it ideal for ICT training and community access. Multidisciplinary research is ongoing. The site is often visited by researchers and is becoming increasingly well documented.

Data Collection

The data presented in this paper was collected in the Keiskammahoek area over a period of a few weeks in late 2012. The ten-item questionnaire comprised mostly open-ended questions, which explains the amount of data generated. The questionnaire was administered orally by local fieldworkers to overcome language barriers, accommodate illiterate respondents and ensure consistency. The topics of the questionnaire focused on media consumption and mobile phone use. Most questions related to the respondents' household. A few questions related to mobile phones were directed personally to the respondent or referred to individual household members. This allowed for consideration of some demographic variables.

Out of the 500 questionnaires distributed, 300 were completed properly and adequately, resulting in a response rate of 60% – an exceptionally high figure considering that the survey was based in a rural area. The administration of questionnaires was done in person by fieldworkers who are members of the community, which probably contributed to the positive response rate. This survey piggy-backed on a more comprehensive household survey. Therefore, as soon as the data of the larger survey is available, correlations can be made between household background variables and the data presented here. For the time being, this paper provides a brief overview of the aggregate data.

Data was quantitatively analysed and presented through descriptive statistics. A summary of the key findings was presented to a Keiskammahoek delegation in early 2013. This enabled us to complement and provide tentative explanations for some of the data. The meeting also provided a solid foundation for future research in the area. We collaboratively discussed practical interventions involving the development of local media and exploring the potential of ICT and mobile phones.

Findings

In this section we present the findings of our survey. Data relating to newspapers, radio, TV and computers are presented first. The discussion of mobile phone penetration, network and use follow, with particular attention to intergenerational and gender differences.

Newspapers

Newspaper circulation in the community is substantial, although lower than the estimated national average. The survey indicates that people in 28% of the households regularly read newspapers. Although daily newspapers are the most read, most respondents reported reading them only on a weekly basis. Only people in three percent of the households read newspapers daily, 18% at least weekly and seven percent at least monthly.

A balance between national and regional exists among daily as well as weekly publications. People in 23% of the households surveyed read the *Daily Dispatch*, a regional newspaper with a weekly insert in isiXhosa, the most widely spoken African language. The high figure for weekly reading noted above might be due to people with low English proficiency reading only the insert in their mother tongue. An additional 10% read the *Daily Sun*, a national daily specifically targeting a black readership. People in three percent of the households read *The Herald* and *The Sunday Times*, regional and provincial weekly

publications respectively. Magazines were not included in the present study. These findings point to an interest in print material that is culturally and linguistically relevant for people in rural areas. At present such offering is surprisingly limited for a country where the vast majority has an African language as their mother tongue. Recent announcements by independent newspapers claim an intention to revive a comparatively long tradition of publications in African languages.

Radio

Radio is widely available reflecting figures consistent with national averages. People in the majority of households (78%) own a radio and 80% receive radio signals. A further 72% of those who do not own a radio claim to have access to one.

People in most households (79%) listen to the isiXhosa Umhlobowenene, a national radio station. People in only seven percent of the households listen to TrueFM and two percent to Forte. These are regional radio stations broadcasting in both English and isiXhosa. English-only radios like 5FM and SAFM are less popular, with only people in one percent of households surveyed who listen to each radio station.

News and talk shows seem to be the most popular type of program. In 63% of the households people listen to 'news/café'. Religious programs, short stories and music programs are each followed in 45% of the households. As seen below, an interest in news and current affairs is present across media.

TV

Television seems to be as popular as radio. People in the majority of the households (79%) own a TV and 83% receive TV signals. A further 70% of those who do not own a TV claim to have access to one. People in most of the households (57%) own a DVD/VCR player and 62% of those who do not own one at least have access to one.

As is the case with radio, news is the most popular type of program. Among TV programs, news on SABC and ETV prove the most watched (78% and 76% respectively), followed closely by *Generations* (73%), an American-style soap opera where almost all South African languages are used (with English subtitles). The popularity of other soaps ranges from 32% (*Rhythm City*) and 19% (E.TV *Resung*) with *YizoYizo*, *Muvhango* and *Scandal* in the middle at 24-26% each. People in 24% of the households watch sport programs. They also watch talk shows like *Khumbulekhaya* (24%) and *Dr Phil* (13%).

In the case of the programs mentioned above, broadcast time might influence the response as much as the age and gender of respondents. One should note that, unlike radio, respondents mentioned specific programs. These emerged from responses to open-ended questions about their preferences and not pre-set lists of options. For both TV and radio, the interest in news over entertainment contrasts with trends in developed countries. An interest in content in African languages is confirmed across all traditional media.

Computers

Computer penetration in the area is in line with the average for Africa as a whole but lower than the national average for South Africa. This is in line with the rural and economically marginalised character of the area. Only four percent of households claim to have a computer. However, 67% have access to a computer somewhere else. This seems to be a high figure and it would be interesting to find out where members of the Keiskammahoek community access computers outside their home (e.g. in schools, internet cafes etc.).

The types of activities people are reportedly able to perform on a computer are predominantly related to productivity rather than entertainment. This might suggest a use of computers restricted to the school or

work environment. A relatively high portion of respondents (11%) claimed that somebody in their household used computers to search for information and eight percent to type documents, download files or exchange e-mails. To a lesser extent, computers are also used for other activities such as social networking (1%), playing games (1%) or listening to music (1%). (It should be noted that 10% of the respondents did not answer these questions, making the data less accurate than those relative to other media.)

Mobile Penetration

Mobile phones are by far the most common media. The majority of households (91%) have mobile phones and network coverage. Seventy-six percent of those who do not own a mobile phone have access to one. These figures are consistent with findings from similar surveys and the reported data for mobile phone use, which will be discussed below. One can state that, in the area under consideration, mobile phones are either owned or accessible by almost everybody. This is consistent with the findings of research in comparable areas (Gunzo & Dalvit, 2012).

Most people in the area seem to have had substantial experience with mobile phones. This is confirmed by the figures for the number of mobile phones owned in the past as well as number of years the respondent has owned a mobile phone. On average, each respondent has owned 2.8 mobile phones. Those who have owned three or more mobile phones make up a fair portion of the sample (42%), while only five percent claim that they have never owned a mobile phone. Half of the respondents have owned a mobile phone for four or more years and an additional 30% have owned a mobile phone for two or three years. Only a minority (less than 3%) acquired their first mobile phone in the last year.

Most mobile phones currently being used appear to have been acquired in the last two years. Approximately 30% of the respondents acquired their current mobile phone in the last year and an additional 30% in the last one to two years. Only 16% have had their current mobile phone for four or more years. Although this does not tell us about the available features, it is reasonable to assume that recent devices would generally have more advanced features. The relationship between experience of the user, age (and features) of the mobile phone and actual use is worth exploring in more depth.

Network

Figures for mobile network providers are clearly in favour of one cellular operator – MTN – which is used by the vast majority of the respondents (76%). This would make Keiskammahoek an interesting site for research on the effect of discounted data or even zero rating on, for example, online media consumption. Approximately 18% use Vodacom and 13% use Cell C, while only one percent reported using 8ta – a recently launched mobile branch of the national landline operator, Telkom. The sum of the figures for all operators (108%) suggests that at least eight percent of the respondents might use more than one SIM card. This is worth researching further as it poses interesting questions, for instance, on the impact of interconnection charges on universal access in marginalised communities. As noted above, single users of multiple SIM cards pose a challenge for big data (and generally speaking data-driven) research in these communities.

The choice of operator reflects the poor and rural character of the area. Sixty-seven percent of respondents cite the cost of calls as the most common factor influencing the choice of network provider. A small difference in cost can be crucial, considering that the average amount of money spent on mobile phones is approximately ZAR160 (AU\$17) per month and that seven percent of the respondents claim they spend nothing on mobile phones or did not respond. Network coverage influenced the choice of operator for 58%. Other reasons, such as quality of service and matching the network used by family and friends, were mentioned by approximately 50% of the respondents. A more nuanced survey of network coverage and other opportunities for connectivity might yield interesting results. Cost and coverage might significantly

affect the balance between mobile data and other wireless technologies (VSAT, WIMAX etc.) in future interventions.

Mobile Phone Activities

Respondents were asked to categorise mobile phone use by the members of their household. A total of 698 members were categorised as either ‘brother’ (33%), ‘sister’ (37%), ‘father’ (9%), ‘mother’ (18%), ‘grandfather’ (5%) or ‘grandmother’ (3%). These percentages are roughly equivalent to the proportions of the respondents themselves. It should be noted that the defining labels, while befitting the conventions of Xhosa culture, are biased by the relationship between the household member and the respondent. Field workers were instructed to capture the member's position in the household, not his or her relation to the respondent. However, the classification as ‘brother’ might refer to people in a wide age range, depending on the age of the respondent. It should also be noted that the preponderance of the ‘siblings’ cohort might affect the interpretation of the data.

The sample can be divided in half between those who performed basic, as opposed to advanced, activities on a mobile phone. Approximately 40% use a phone for communication only and an additional 10% for communication and money-related activities (which include mobile banking but also SMS notifications and airtime transfer). Within the remaining half is the second most popular combination – that is, communication, multimedia (e.g. taking/viewing/sharing photographs, playing music) and network (e.g. email, web browsing, instant messaging and social networking) activities (27% perform all three types of activities on a mobile phone). Less than 18% of respondents practice activities in all categories. These figures are consistent with reported uses of mobile phones by different members in each household.

Communication was by far the most common use for mobile phones, followed by multimedia, network and money-related activities. A phone was used for communication by 98% of the sample and by at least one person in 95% of the households. The difference in figures between individual and household use is particularly interesting for the other three sets of activities. If we consider individual household members, only 51% use a phone for multimedia and 40% for network-related activities. However, the figures for households where at least one person performed these types of activities are 20% higher (70% and 60% respectively). A similar finding is present when money-related uses of mobile phones are concerned (22% of individuals and 27% of households). In view of the discussion of mobile phone sharing above, it is worth noting that the reach of phones with relatively advanced features through kinship might be substantially higher than what is revealed by surveys targeting individuals.

Gender and Cohort

The younger cohort (siblings – i.e. brothers and sisters) appears to use phones differently from the older ones. While figures were similar for communication and money-related uses, 60% of the siblings use a phone for multimedia but only 30-35% of parents and grandparents do so. The difference is even greater for network-related uses, with 50% of siblings engaging, as opposed to less than 15% of parents and grandparents. The categorisation in cohorts is probably too crude to allow for meaningful analysis. However, we can conclude that younger people generally use mobile phones for more advanced activities. It would be interesting to explore the relationship between age and phone use in more detail.

The main difference between genders concerns money-related activities. Mothers and sisters generally use a phone to transfer money more frequently than their male counterparts. In a follow up meeting with members of the community, this was explained by the fact that women typically receive child support or government grants. One should also consider that a man of working age is likely to migrate to the city to find a job and only return to Keiskammahoek if sick or unemployed. For the grandparents’ cohort, men generally use a phone for money-related activities more than women. This can be explained if we consider that older men traditionally receive support (including airtime transfers) from younger relatives they

supported as children. More research into the relationship between mobile phones and remittances might yield interesting results in terms of gender differences.

In terms of use of relatively advanced features, it is worth considering the combination of cohort and gender. Figures for siblings of different genders are comparable, whereas mothers are twice as likely as fathers to use their phone for multimedia and network-related activities. One could speculate that women with children have access to a small disposable income, which is used to buy a slightly better phone. However this interpretation would require a more meaningful sample and/or rigorous qualitative analysis.

Conclusions

In terms of media consumption, the interest of the Keiskammahoek community seems to go towards news followed closely by entertainment. Broadcast media are prominent while print media is less so. There is definitely scope for growth in new media, particularly among young adopters and women. Language seems to influence the preferred publication, station, channel and program. This is important to consider for policymakers and implementers as well as market players interested in multilingual media and content in African languages.

Further research is needed in areas such as quality and frequency of access to various types of content (particularly print), patterns of expenditure for media consumption and availability of print, broadcast signals and network. In terms of mobile phone use, a more nuanced survey of activities is required, capturing social media behaviour across different platforms as well as browsing of news and multimedia material. A study of new media across age and gender promises to yield interesting results. Media and ICT sharing is a recurring theme and is definitely worthy of further study.

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