



# South African mobile generation

Study on South African young people on mobiles

Digital  
Citizenship  
Safety



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## ABSTRACT

This exploratory paper is part of a series that examines the role of mobile technology in the lives of adolescents and young people living in developing nations. The current report focuses on South Africa and is based on primary data collected in the previous series of this publication and secondary evidence gathered through a desk review of relevant literature. This report presents, first, in section two, an overview context of South Africa, and her digital landscape; Information and Communication Technology (ICT) development in South Africa has flourished in the past years, particularly with regard to mobile access and use, though continues to lag in computer and stationary Internet ownership and use. Section three investigates the use of mobile technology by South African adolescents and young people. Extensive research identified a number of characteristics unique to the South African digital landscape: most notably, there exists in South Africa a series of persistent digital divides based on socio-economics, geography and language, as well as in ICT ownership, access, and use. Section four investigates popular communication activities used and accessed among South African adolescents and young people. That said, the nation, as a whole, leads in the content as creation and consumption on social networking platforms, namely Mxit and Twitter. With high access and use comes also a need for awareness of global opportunities and risk. Section five of this report discusses also the types of safety risks adolescents and young people are exposed to while using mobiles, including: cyberbullying, sexting, privacy and exposure to sexually explicit images. The final section of the current paper discusses public and private initiatives to increase opportunities for South African citizens to optimally and safely access and use ICTs.

## SUMMARY OF FINDINGS

- South African residents lead as one of the highest users of mobile technology and mobile social networking on the continent. However, stationary Internet and computer ownership lags.
- South African adolescents and youth are the first adopters of mobile technology, with 72 per cent of 15 –to 24-year olds “having a cell phone.”
- South Africa is the leading innovator, in Africa, in social networking, microblogging and content creation.
- There is a pronounced digital divide in South Africa with regard to ICT ownership, access, and use, divided by race, socioeconomics, and geography.
- The primary risks faced by South African adolescents and young people online are talking to and meeting strangers, cyberbullying, and sexting.
- The South African government and private sector are involved in promoting ICT development and monitoring safety online. With a rapidly growing number of ICT users, many of whom have never before been connected to the digital world, there is an urgent need for well-crafted legislations and programmes in ICT development and education.

## THE DIGITAL CITIZENSHIP AND SAFETY PROJECT

This exploratory study is part of a series produced by the Young people Section at UNICEF New York through its Digital Citizenship and Safety project. The Digital Citizenship and Safety project aims to provide a better understanding of the digital landscape in a range of different countries, mainly those with developing or emerging economies. The project starts with a data collection phase, during which exploratory, quantitative and qualitative studies are synthesized to produce evidence-based communication materials to raise awareness on the optimal and safe use of ICTs. The concept of Digital Citizenship is then advocated at the local government level through advocacy workshops, seminars and conferences on how to maximize ICTs' opportunities while minimizing risks to users.

The Digital Citizenship and Safety project aligns itself within the scope of work conducted by the Social and Civic Media Section at UNICEF, whose mission is to work with traditional and new technologies including social networking tools, SMS, and digital mapping to empower adolescents and young people to play an active role in society.

The Convention on the Rights of the Child (CRC, 1989) guarantees the right to express views and to be heard (Art.12), freedom of expression, including the freedom to seek, receive and impart information (Art.13), the freedom of association and peaceful assembly, and the right to information, (Art.17) amongst others. Although drafted before the Internet became ubiquitous, the CRC is highly pertinent when it comes to adolescents and young people accessing, posting and sharing content online. With the rapid development of ICTs in the last decade, these rights should be analysed and clearly applied to the digital age.

# 1. INTRODUCTION

## 1.1. Background

“Please Call Me.”<sup>12</sup> Evolved from the practice of “beeping,” or calling someone and hanging up after a ring or two. Beeps, also known as missed calls or flashes, are a signal to the recipient to call the other back when the caller is low on airtime. Studies estimate that 20 to 30 per cent of all calls made each day in Africa are beeps.<sup>3</sup> Carriers<sup>4</sup> started providing “Please Call Me” text messages free of charge after they noticed that the networks were getting inundated by millions of beeps a day. The “Please Call Me” service is a free alternative method for low-income South Africans to reach out to their contacts. Its use spans great breadth: it has been used not only for social purposes, but for civic ones- such as an HIV- awareness campaign too.<sup>5</sup>

Since the growth of ICTs, many South Africans living in urban<sup>6</sup> and rural<sup>7</sup> communities are able to explore, share, and access digital information through mobile and computer Internet connectivity. From 2005 to 2009, the number of South Africans owning, renting and/or having access to a mobile phone increased by 20 per cent, and the country now experiences 100.48 per cent mobile penetration<sup>89</sup> among its total population of 50 million.<sup>10</sup> The low cost of SIM cards and the availability of cheap handsets and of prepaid subscriptions have also enabled resource-limited users the opportunity to communicate and access information digitally.

The mobile industry in Africa has become an enabler of economic development; mobile services have emerged in agriculture, banking, education, and healthcare. Expanding quickly, with over 620 million mobile connections as of September 2011, Africa bears the second largest mobile market in the world.<sup>11</sup> In the last ten years, the number of mobile connections in Africa has

<sup>1</sup> Zerst, Fiona, ‘Vodacom’s New Airtime Advance’, *Mail & Guardian*, 24 May 2011, <<http://mg.co.za/article/2011-05-24-vodacom-s-new-airtime-advance>> (accessed 11 March 2012).

<sup>2</sup> Please see Annex I.

<sup>3</sup> Donner, Jonathan, ‘The Rules of Beeping: Exchanging Messages Via Intentional “Missed Calls” on Mobile Phones’, *Journal of Computer-Mediated Communication*, 2007, <<http://jcmc.indiana.edu/vol13/issue1/donner.html>> (accessed 11 March 2012).

<sup>4</sup> For South African carriers: Telekom, MTN, Vodacom, Virgin, see: <[http://www.africantelecomsnews.com/resources/AfricaOpp\\_South\\_Africa.shtml](http://www.africantelecomsnews.com/resources/AfricaOpp_South_Africa.shtml)> (accessed 30 December 2011).

<sup>5</sup> MobileActive.org, ‘Please Call Me’ Messages with HIV info: Mobile Social Marketing in South Africa’, 15 December 2007, <<http://mobileactive.org/please-call-me-messages-hiv-info-mobile-social-marketing-south-africa>> (accessed 12 March 2012).

<sup>6</sup> Please see Annex I.

<sup>7</sup> Please see Annex I.

<sup>8</sup> These figures do not account for mobile sharing, multiple SIM cards per user and multiple cell phone ownership, therefore it is an indication of unequal ICT ownership.

<sup>9</sup> International Telecommunication Union (ITU), ‘Mobile cellular subscriptions’, 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/MobileCellularSubscriptions00-10.xls>> (accessed 6 February 2012).

<sup>10</sup> Statistics South Africa, Key Results, 2001, <<http://www.statssa.gov.za/census01/HTML/C2001publications.asp>> (accessed 14 March 2012).

<sup>11</sup> GSM Association, A.T. Kearney Ltd., ‘African Mobile Observatory 2011: Driving Economic and Social Development through Mobile Services’, 2011,

grown an average of 30 per cent per year and is forecast to reach 735 million by the end of 2012. South Africa houses the third largest number of mobile subscribers in the continent, after Nigeria and Egypt.<sup>12</sup> Young people are the primary adopters of mobile technologies in South Africa; nearly 72 per cent of mobile ownership occurs among 15 to 24-year olds.<sup>13</sup>

While past generations of young people expressed themselves through traditional mediums such as radio and written publications the digital era offers new opportunities for access and expression to today's young people. Rights such as the Right to Express Views (Article 12), the Right to Freedom of Expression (Article 13), the Right to Assembly (Article 15), and the Right to Access to Information (Article 17) can all be exercised in the digital sphere. Granted by the United Nations Convention on the Rights of the Child (UNCRC, 1989), and ratified by South Africa in 1995<sup>14</sup>, these rights recognize the potential of digital technologies to amplify the freedom of expression and to expand access thereto, but also come with risks that need to be adapted to, and addressed within, the digital arena.

## 1.2. Objective

This exploratory study is the second output of an ongoing research effort to better understand the digital landscape in South Africa. While the first paper focused on presenting primary data which UNICEF collected, in collaboration with Mxit, on social networking habits over mobile mediums, this research integrates also quantitative survey and recent evidence results to present the significance of mobile use in a larger context. Considering the significance and increasing use of mobile phones in South Africa, this paper focuses on mobile telephony use, its economic and social impact, and on the opportunities and challenges that it presents to South African adolescents and young people. The topic requires discussion due to its ever growing impact on online and offline behaviour of young people.

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<[http://www.gsmworld.com/documents/African\\_Mobile\\_Observatory\\_Full\\_Report\\_2011.pdf](http://www.gsmworld.com/documents/African_Mobile_Observatory_Full_Report_2011.pdf)> (accessed 10 November 2011).

<sup>12</sup> Ibid.

<sup>13</sup> Henry J. Kaiser Family Foundation, 'Young South Africans, Broadcast Media, and HIV/AIDS Awareness: Results of a National Survey', 2007, <<http://www.kff.org/southafrica/upload/7614.pdf>> (accessed 13 March 2012).

<sup>14</sup> United Nations Treaty Collections, Chapter 11, South Africa ratification, see:

<[http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=IV-11&chapter=4&lang=en](http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&lang=en)> (accessed 29 December 2011).

## 1.3. Methodology

### Research process

To reach the study objective and to expand and further analyse the primary data created in earlier DCS work<sup>15</sup>, a search was conducted for background information on South Africa, particularly pertaining to the use of, and access to, ICT tools. The predominant focus lay on mobile telephones (due to most relevance in ICT context of the country), activities and behavior in the use of mobiles, risks faced while using mobiles, and rights associated with use of digital technologies by South African young peoples.

As an ongoing process during the research, the methodologies of studies were checked for their reliability, as were the background and experience of the sources' institutions. The reliability of the institutions was measured by validating the data collection, sampling frame, questionnaire, and the credibility of the institutions in conducting research in the focused area.

The literature search was conducted on the Internet in English, using the western search engine, Google. The use of local and regional ICT websites was important in the research process, as well, in order to ensure that all local sources were identified.

### Sources utilized

Only the sources identified as stemming from reputable organizations, and containing large sample sizes and reliable methodologies were utilized. Reliable household surveys such as the population census and the Gross Domestic Product and Quarterly Labour Force Survey, (conducted by the Statistics South Africa) were used to gather national economic, population and demographics data. Other primary research sources used in this report include studies from the United Nations, Research ICT Africa (RIA), Nelson Mandela Metropolitan University, University of Cape Town, Link Centre at University of Witwatersrand in South Africa, University of Fort Hare in South Africa, Centre for Justice and Crime Prevention (CJCP), The Kaiser Family Foundation, South African Broadcasting Corporation, Namibian Economic Policy Research Unit, Tufts University, International Telecommunication Union (ITU), and Microsoft Research India.

### Valuing local sources and expertise

A detailed process which consisted of ranking sources in the order of United Nations sources, International institutions, government sources, universities, Non-Governmental Organizations (NGOs), and private actors was employed in weighing all international and local sources. It was found that there exists a significant amount of high quality research work completed by

<sup>15</sup> Hoveyda, Priscillia and Sinha, Akshay, 'From 'What's your ASLR' to 'Do You Wanna Go Private?', UNICEF, 2011, <[http://www.unicef.org/southafrica/SAF\\_resources\\_MXitstudy.pdf](http://www.unicef.org/southafrica/SAF_resources_MXitstudy.pdf)> (accessed 8 March 2012).

the South African government and local institutions and experts, therefore limited reliance on the expertise of international organizations and individuals was required.

In order to validate our findings and gather local perspective and area of specialization, during May 2012, we consulted local and international experts such as those at UNICEF South Africa, UNICEF Child Protection Unit, UNICEF Innocenti Research Centre, Berkman Center for Internet & Society at Harvard University, Education Impact, Tufts University, Centre for Justice and Crime Prevention (CJCP), Nelson Mandela Metropolitan University, University of Cape Town, Research ICT Africa (RIA), University of Johannesburg, University of Southern California, and Mxit Lifestyle.

### Assessing reliability of sources

To assess the reliability of secondary sources, a source valuation matrix was created, which weighted the sources by type, date, and author. In this process, data were carefully checked against all available sources. This mitigated the risk of valuing any invalid facts or formulating false hypotheses.

We found approximately 40 studies that contained information relevant to our objective. These studies were grouped and analysed based on the content of their results.

## 2.0 CONTEXT

### 2.1 Overview of South Africa

The Republic of South Africa is a diverse nation, with a population of 50.59 million people (2011),<sup>16</sup> 79.5 per cent are black Africans, 9.0 per cent are white Africans, 8.9 per cent are Coloureds<sup>17</sup>, and 2.5 per cent are Indian/Asian.<sup>18</sup> Various ethnic groups among these populations contribute to the overall cultural composition of South Africa.<sup>19</sup>

Due to its multi-party, three-tier democracy, the government of South Africa has three capital cities: Pretoria is the administrative and primary capital; Cape Town is the legislative capital; and Bloemfontein is the judicial capital.

The country's demographic landscape spans across nine provinces. Though the smallest province in geographical size, Gauteng bears the largest population, with 11.3 million

<sup>16</sup> Statistics South Africa, 'Mid-year population estimates, 2011,' <<http://www.statssa.gov.za/publications/P0302/P03022011.pdf>> (accessed 27 April 2012).

<sup>17</sup> Please see Annex I.

<sup>18</sup> Ibid.

<sup>19</sup> The eleven official languages are: English, isiZulu, isiXhosa, isiNdebele, Afrikaans, siSwati, Sesotho sa Leboa, Sesotho, Setswana, Tshivenda, Xitsonga.

inhabitants.<sup>20</sup> Northern Cape is the smallest populated province; it houses only 1.1 million people.<sup>21</sup> Fifty-two per cent of the total population is female.<sup>22</sup> 31.3 per cent are 15 years old and younger<sup>23</sup>; 3.6 million reside in the province of KwaZulu-Natal, and 3.09 million living in Gauteng.<sup>24</sup>

As of 2011, the South African gross domestic product (GDP) grew at 4.5 per cent, making it the largest economy in Africa,<sup>25</sup> and one of only four African countries with an upper-middle class economy.<sup>26,27</sup>

## 2.2 Selected overview: technological context

Most technological advancement in South Africa has taken place in the mobile sphere, leading to a significant rise in mobile ownership and usage. However, South Africa continues to struggle with a significant lag in both the expansion of ICT infrastructure and in the ownership of computers and access to Internet.

### 2.2.1 Internet and telephony history

South Africa's history of apartheid impacted the development and delivery of public and social services in the country.

Under apartheid, fixed-line telephony infrastructure was put in place largely in affluent residential areas, which house less than 10 per cent of the country's total population.<sup>28</sup> During nearly the 50 years up to 1995, the rest of the country was neglected from ICT infrastructure development, allowing significant advancement to occur only in affluent and developed areas. After the rise of mobile telephony in South Africa, ICT access began to expand and wide range of communication, education, and engagement opportunities became more widely available.<sup>29</sup>

The growth of ICT infrastructure in South Africa is much higher than in her neighboring countries. According to a 2005 study, *Mobile Cellular Telephone: Fixed-line Substitution in Sub-*

<sup>20</sup> Statistics South Africa, 'Mid-year population estimates, 2011,' <<http://www.statssa.gov.za/publications/P0302/P03022011.pdf>> (accessed 21 April 2012).

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

<sup>25</sup> Real GDP of South Africa grew at 4.8% for the first quarter of 2011, to 3,98,605 million Rand.

<sup>26</sup> Statistics South Africa, Key Result, 2001,

<[http://www.statssa.gov.za/census01/html/Key%20results\\_files/Key%20results.pdf](http://www.statssa.gov.za/census01/html/Key%20results_files/Key%20results.pdf)> (accessed 19 November 2011).

<sup>27</sup> South Africa, Botswana, Gabon, and Mauritius are the African countries with an upper-middle class economy.

<sup>28</sup> Kreutzer, Tino, 'Generation Mobile: Online and Digital Media Usage on Mobile Phones among Low-Income Urban Young people in South Africa', University of Cape Town, 2009.

<sup>29</sup> Ibid.

*Saharan Africa*, conducted by Steve Esselaar and Christoph Stork, from the University of the Witwatersrand and Namibian Economic Policy Research Unit, respectively, South Africa has the highest number of households with one or more mobile phones (56.7 per cent), when compared to other African countries.<sup>30</sup><sup>31</sup> Fixed-line telephone penetration, in South Africa, remains below 10 per cent<sup>32</sup> like most of the countries in the region in which investment in telecommunications infrastructure is lacking and mobile phones continue to be the main ICT communication tool for the population.<sup>33</sup> According to the *African Mobile Observatory 2011: Driving Economic and Social Development through Mobile Services* study, by GSM Association and A.T. Kearney Ltd., as of September 2011, South Africa has the third largest number of mobile subscribers in the continent, after Nigeria and Egypt.<sup>34</sup>

In South Africa, there has been a sharp departure from government ownership to private telecom ownership of fixed telephone, mobile, and Internet, much like regional telephony history. Vodacom, MTN, Cell-C, Virgin Mobile and Telkom are the five biggest mobile-phone companies in South Africa, and only Telkom is partly owned by the government.<sup>35</sup><sup>36</sup>

The first stationary<sup>37</sup> Internet connection was established in South Africa in 1988<sup>38</sup>; however stationary Internet penetration remained below 10 per cent until 2009, when it climbed to 12.30 per cent in 2010<sup>39</sup>. This 2.3 per cent growth is the highest the nation has ever seen. Explanations for this growth vary: some attribute it to the completion of the new Seacom undersea cable in mid-2009,<sup>40</sup> although evidence shows disruptions in service.<sup>41</sup> Others argue that the granting of Electronic Communications Network Service licenses to more than 400 organisations, and the introduction of the 3G technology in 2008, is responsible<sup>42</sup>; and still

<sup>30</sup> Esselaar, Steve and Stark, Christoph, 'Mobile Cellular Telephone: Fixed-line Substitution in Sub-Saharan Africa', 2005, <<http://link.wits.ac.za/journal/j06-esselaar.pdf>> (accessed 10 November 2011).

<sup>31</sup> Cameroon, Ethiopia, Namibia, Tanzania, Uganda, and Zambia.

<sup>32</sup> 8.43%. International Telecommunication Union (ITU), 'Fixed telephone subscriptions', 2010, <[http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/FixedTelephone\\_00-10.xls](http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/FixedTelephone_00-10.xls)> (accessed 29 May 2012).

<sup>33</sup> GSM Association, A.T. Kearney Ltd., 'African Mobile Observatory 2011: Driving Economic and Social Development through Mobile Services', 2011, <[http://www.gsmworld.com/documents/African\\_Mobile\\_Observatory\\_Full\\_Report\\_2011.pdf](http://www.gsmworld.com/documents/African_Mobile_Observatory_Full_Report_2011.pdf)> (accessed 10 November 2011).

<sup>34</sup> Ibid.

<sup>35</sup> Majority ownership by Department of Communications.

<sup>36</sup> The Government Communication and Information System (GCIS), 'South Africa Yearbook 2010/11', <[http://www.gcis.gov.za/resource\\_centre/sa\\_info/yearbook/2010-11/chapter5.pdf](http://www.gcis.gov.za/resource_centre/sa_info/yearbook/2010-11/chapter5.pdf)> (accessed 10 November 2011).

<sup>37</sup> Computer-based Internet connection.

<sup>38</sup> Lawrie, Mike, 'The History of the Internet in South Africa: How it Began', 1997, <<http://archive.hmvh.net/txtfiles/interbbs/SANetHistory.pdf>> (accessed 14 March 2012).

<sup>39</sup> International Telecommunication Union (ITU), 'Internet Users', 2010, <[http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/IndividualsUsingInternet\\_00-10.xls](http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/IndividualsUsingInternet_00-10.xls)> (accessed 10 November 2011).

<sup>40</sup> SEACOM is the largest fiber optic cable carrier along the Indian Ocean coast.

<sup>41</sup> BBC News, 'Fault Disrupts Seacom Internet Cable to East Africa', 7 July 2010, <<http://www.bbc.co.uk/news/10536273>> (accessed 9 December 2011).

<sup>42</sup> SouthAfrica.Info, 'South Africa's Telecommunications', <<http://www.southafrica.info/business/economy/infrastructure/telecoms.htm>> (accessed 1 February 2012).

others point to the liberalization of the telecom sector with licenses issued to more ISPs and uptake in broadband subscription by small and medium businesses.<sup>43</sup>

## 2.2.2 The Potential of Mobile Phones Narrowing the Digital Divide

According to ITU, South Africa has cellular subscription penetration of 100.48 per cent.<sup>44</sup> Although, one should also understand that some users might have multiple subscriptions<sup>45</sup> while others might have none.

Confirmed by data from household surveys conducted by Statistics South Africa and Research ICT Africa (RIA), it appears that there is an increase in the ownership of cell phones in South Africa; while there was only 32.3 per cent mobile phone ownership in 2001, 2007 saw 72.9 per cent mobile ownership.<sup>46,47</sup> Computer ownership, too, increased from 8.6 per cent in 2001 to 15.7 per cent in 2007, though remains quite low due to computer's high cost.<sup>48</sup>

The 2007 RIA Household Survey data suggests a very low household ownership of computer with 14.78 per cent and stationary Internet at 4.76 per cent.<sup>49</sup> On the other hand, mobile ownership and Internet rates are much higher. In 2011, 39 per cent of urban and 27 per cent of rural users were browsing the Internet on their mobiles.<sup>50</sup> One possible reason why users might favor mobile Internet over stationary Internet could be that mobile Internet offers a cheaper alternative to access Internet, with mobile broadband packages costing as low as US\$1.10 per month while the cheapest ADSL stationary Internet costing at least US\$ 7.22 per month.<sup>51</sup>

<sup>43</sup> World Wide Worx report via <<http://www.afribiz.info/content/press-release-south-africa-internet-growth-accelerates>> (accessed 13 March 2012).

<sup>44</sup> International Telecommunication Union (ITU), 'Mobile Cellular Subscriptions', 2010, <<http://www.itu.int/ITU-D/ict/statistics/material/excel/2010/MobileCellularSubscriptions00-10.xls>> (accessed 10 November 2011).

<sup>45</sup> These figures do not account for mobile sharing, multiple SIM cards per user and multiple cell phone ownership, therefore it is an indication of unequal ICT ownership.

<sup>46</sup> Government of South Africa, 'Statistics South Africa, Community Survey 2007'. 2007, <<http://www.statssa.gov.za/Publications/CS2007Basic/CS2007Basic.pdf>> (accessed 13 November 2011).

<sup>47</sup> 67% of South Africans 'own a cell phone or an active SIM card', 'All Media Products Survey - Publiciti AMPS 2008A', Research ICT Africa (RIA), 2009, 'RIA e-Access & Usage Household Survey (database)', SPSS statistics, <<http://www.ResearchICTAfrica.net>> (accessed 13 November 2011).

<sup>48</sup> Government of South Africa, 'Statistics South Africa, Community Survey 2007', 2007, <<http://www.statssa.gov.za/Publications/CS2007Basic/CS2007Basic.pdf>> (accessed 13 November 2011).

<sup>49</sup> 'All Media Products Survey - Publicity AMPS 2008A', Research ICT Africa (RIA), 2009, 'RIA e-Access & Usage Household Survey (database)', SPSS statistics, <<http://www.ResearchICTAfrica.net>> (accessed 13 November 2011).

<sup>50</sup> World Wide Worx report via <<http://www.cellular-news.com/story/43524.php>>.

<sup>51</sup> Mobile internet price, see:

<<http://www.vodacom.co.za/personal/phonesandpackages/dataprceplans?packageTypeId=4>> (accessed 14 March 2012).

Fixed internet ADSL price, see:

<[http://www.vodacom.co.za/personal/internet/broadbandathome/adsl#adsl/?pageUrl=/personal/internet/broadbandathome/adsl&firstLoad=true&\\_suid=754](http://www.vodacom.co.za/personal/internet/broadbandathome/adsl#adsl/?pageUrl=/personal/internet/broadbandathome/adsl&firstLoad=true&_suid=754)> (accessed 14 March 2012).

Adolescents and young people have been identified as the first adopters of mobile technology with 72 per cent of 15 to 24- year-old reported as “having a cell phone” in a 2007 national survey conducted by The Kaiser Family Foundation and the South African Broadcasting Corporation.<sup>52</sup>

The majority of mobile phone users favor using prepaid services rather than service contracts; interestingly, when compared to its neighboring countries, 81.1 per cent of all mobile connections in South Africa are pre-paid,<sup>53</sup> compared to 99 per cent average for 25 African countries.<sup>54</sup> Prepaid services cost as low as the price of the SIM card at US\$ 0.12, while phone contracts costing at least US\$ 11.90 for connection fee and US\$ 12.20 per month<sup>55</sup> in South Africa.<sup>56</sup> Pre-paid mobile subscription is popular in Sub-Saharan Africa due to lower or irregular incomes, since setting up a pre-paid account doesn’t require a bank account, a physical address, or postal address, and it allows users more control over their expenses- spending when money is available with no minimum payment required.<sup>57</sup>

Like in most developing countries, South Africa’s mobile telephony has been a fundamental factor in reducing the communication gap between urban and rural demographics, as it provides access to areas underserved by main telephone lines and other ICT infrastructure. This is not surprising: ICT studies show that in the majority of the least developed countries (South Africa included in this study), mobiles with prepaid services are the “only means of communication” for rural and socio-economically disadvantaged households.<sup>58</sup>

There have been other mobile trends and services seen in the country which help accommodate the local income and lifestyle, including the “Please Call Me” service through which messages can be sent to another customer for free.<sup>5960</sup>

<sup>52</sup> Henry J. Kaiser Family Foundation, ‘Young South Africans, Broadcast Media, and HIV/AIDS Awareness: Results of a National Survey’, 2007, <<http://www.kff.org/southafrica/upload/7614.pdf>> (accessed 13 March 2012).

<sup>53</sup> The Regulation of Interception of Communications and Provision of Communication-Related Information Act (RICA), requires registration of all SIM cards in use in South Africa.

<sup>54</sup> *All of South Africa’s neighboring countries and region was included in this study, except Botswana and Namibia.* GSM Association, A.T. Kearney Ltd., ‘African Mobile Observatory’, 2011, <[http://www.gsmworld.com/documents/African\\_Mobile\\_Observatory\\_Full\\_Report\\_2011.pdf](http://www.gsmworld.com/documents/African_Mobile_Observatory_Full_Report_2011.pdf)> (accessed 10 November 2011).

<sup>55</sup> Mobile monthly subscription-price, <http://www.vodacom.co.za/personal/phonesandpackages/datapriceplans?packageTypeId=4>

Mobile prepaid price-

<https://shop.vodacom.co.za/shop/planPrepay.jsp?plantype=mobile&billingMethod=prepay&menuKey=mnit100011>

<sup>56</sup> South Africa per capita income figure, see:

<[http://www.statssa.gov.za/news\\_archive/Docs/MDGR\\_2010.pdf](http://www.statssa.gov.za/news_archive/Docs/MDGR_2010.pdf)>(accessed 16 March 2012).

<sup>57</sup> Esselaar, Steve and Stark, Christoph, ‘Mobile Cellular Telephone: Fixed-line Substitution in Sub-Saharan Africa’, , 2005, <<http://link.wits.ac.za/journal/j06-esselaar.pdf>> (accessed 10 November 2011).

<sup>58</sup> International Telecommunication Union (ITU), ‘ICT and Telecommunications in Least Developed Countries’, 2006, < [http://www.itu.int/ITU-D/Idc/pdf/ictand\\_telinldc-e.pdf](http://www.itu.int/ITU-D/Idc/pdf/ictand_telinldc-e.pdf)> (accessed 07 February 2012).

<sup>59</sup> Example of ‘Please Call Me’, see:

<[http://www.vodacom.co.za/personal/services/stayintouch/pleasecallme#pleasecallme/?pageUrl=/personal/services/stayintouch/pleasecallme&firstLoad=true&\\_suid=641](http://www.vodacom.co.za/personal/services/stayintouch/pleasecallme#pleasecallme/?pageUrl=/personal/services/stayintouch/pleasecallme&firstLoad=true&_suid=641)> (accessed 29 December 2011).

<sup>60</sup> Please see Annex I.

### 2.2.3 Mobile Consumer Growth

Mobile handsets sales accounted for 21 per cent of South Africa's consumer electronics spending in 2010. South Africa has experienced compound annual growth rate (CAGR) growth of 11 per cent in handset sales in the past five years<sup>61</sup>, and is expected to grow at a CAGR of four per cent to US\$1.8 thousand million by 2015. Demand for 3G handsets has exceeded expectations, while lower prices have boosted sales of smartphones.<sup>62</sup>

With an increased purchase of mobile devices, new opportunities have opened up to adolescents and young people in accessing and consuming digital information via online platforms like Mxit, Facebook and Twitter.

## 3.0 The SOUTH AFRICAN DIGITAL DIVIDE

With the staggering growth in digital access through mobile devices, new opportunities have emerged which were not as prevalent in the last decade. However, it must be noted that the opportunities have not been equally distributed within South Africa based on: location, language, education and socioeconomic levels. The Digital Citizenship and Safety research continues to explore this digital divide in order to program and advocate for online and offline equity.

### 3.1 Location-based digital divide

Public and private actors are narrowing the digital divide by increasing ICT equipment ownership and use among individuals in both rural and urban areas of South Africa. A household ICT access survey, conducted by RIA in 2010, found that 70.6 per cent of urban dwellers aged 16 and older use mobile phones, while only 48.9 per cent of their rural neighbours engage in such activity.<sup>63</sup> With the development of better ICT infrastructure, mobile ownership and connectivity is increasing among rural young people populations.

The practice of Internet browsing on mobile phones is also expanding in South Africa. Nearly 39 per cent of urban dwellers and 27 per cent of rural residents browse the Internet on their mobile phones.<sup>64</sup> Although South Africans are increasingly becoming mobile owners, Internet

<sup>61</sup> GSM Association, A.T. Kearney Ltd., 'African Mobile Observatory', 2011, <[http://www.gsmworld.com/documents/African\\_Mobile\\_Observatory\\_Full\\_Report\\_2011.pdf](http://www.gsmworld.com/documents/African_Mobile_Observatory_Full_Report_2011.pdf)> (accessed 10 November 2011).

<sup>62</sup> Business Wire, 'Research and Markets: South Africa Consumer Electronics Report Q3 2011,' 7 July 2011, <<http://www.businesswire.com/news/home/20110707005552/en/Research-Markets-South-Africa-Consumer-Electronics-Report>> (accessed 13 March 2012).

<sup>63</sup> RIA Household Survey, 2001, via <<http://www.ResearchICTAfrica.net>> (accessed 2 February 2012).

<sup>64</sup> Tande, Dibussi, 'Information and Communications Technology in South Africa- An', Northwestern University, Kellogg School of Management, (accessed 16 February 2011).

access is low among the rural cellular market due to cost concerns.<sup>65</sup> There is limited evidence indicative of a digital divide in South Africa; therefore, further research is needed.

### 3.2 Socioeconomic digital divide

According to the unemployment rates reported in government and state union employment reports, the socioeconomic landscape of South Africa is vastly divided by both race and gender.

A 2011 South African national census found that 27.7 percent of black Africans were unemployed compared to 6.7 per cent of white population.<sup>66</sup> In addition, white African workers earn, on average, 5.5 times more than black African workers.<sup>67</sup> The census also found that the white African population group has the highest income, of nearly 450 per cent more than the average black African income and 400 per cent more than the average Coloured African income.<sup>68</sup> These figures point to a stark income disparity, especially considering that 79.6 per cent of South Africa's total population is black Africans, 9.1 per cent are white Africans, 8.9 per cent are colored, and 2.5 per cent are Indian/Asian in South Africa.<sup>69</sup> While there is limited hard evidence of digital divide between socioeconomic groups, there is reported evidence of socioeconomic divisions that may attribute to similar disparities within the realm of ICT access in South Africa.

### 3.3 Gender participation in ICT Use and Access

Studies have identified a slight gender participation gap between mobile users in South Africa.<sup>70</sup> In May 2011, the Effective Measure statistics commissioned, by the South African Digital Media and Marketing Association (DMMA) measured the population of urban Internet users. The study revealed a fairly stark gender gap amongst individuals aged 15 to 60-years old; approximately 31 per cent Internet users are female, whereas 68 per cent are male.<sup>71</sup>

<sup>65</sup> Ibid.

<sup>66</sup> Statistics South Africa, 'Quarterly Labour Force Survey,' 2011, <<http://www.statssa.gov.za/PublicationsHTML/P02114thQuarter2011/html/P02114thQuarter2011.html>>(accessed 2 May 2012).

<sup>67</sup> Oyedemi, Toks Dele, 'Social Inequalities and the South African ICT Access Policy Agendas', 2009, <<http://ijoc.org/ojs/index.php/ijoc/article/viewFile/347/304>> (accessed 12 March 2012).

<sup>68</sup> Ibid.

<sup>69</sup> Statistics South Africa, Key Result, 2001, <[http://www.statssa.gov.za/census01/html/Key%20results\\_files/Key%20results.pdf](http://www.statssa.gov.za/census01/html/Key%20results_files/Key%20results.pdf)> (accessed 1 February 2012).

<sup>70</sup> MyBroadband.co.za News, 'SA Internet Users: Who are They Really', 20 June 2011, <<http://mybroadband.co.za/news/internet/26869-sas-internet-users-who-are-they-really.html>> (accessed 15 February 2012).

<sup>71</sup> Ibid.

Another study examined gender participation among 10,110 university students in South Africa in two different years 2004 and 2007.<sup>72</sup> Nearly 88 per cent of students were undergraduates, and 53 per cent were female.<sup>73</sup>

According to results of the 2007 survey, 62 per cent of females had a poor knowledge of ICT use, compared to 37 per cent for male students.<sup>74</sup>

According to data from RIA, while Zambia, Senegal, Benin and Uganda have a significant gender participation gap between mobile users with males leading, female mobile users lead by 7 per cent in South Africa.<sup>75</sup>

## 4.0 COMMUNICATION ACTIVITIES

“I use my cellphone for everything,”<sup>76</sup> explains a South African university student who uses her multi-function mobile phone to download and watch movies, access and pay bills, and receive bank account information online and through text message notifications.

### 4.1 Social Network Sites Activity Use

A 2009 TNS report conducted a study of social networking sites (SNS) use among a representative sample of 401 South Africans aged 16 years and older.<sup>77</sup> The study found that 74 per cent of reported users use (SNS).<sup>78</sup> Among the most reported sites were Facebook, with 82 per cent use, Mxit, with 29 per cent use, Twitter, with 28 per cent use, MySpace, with 18 per cent use, and LinkedIn, with 14 per cent use.<sup>79</sup>

In addition, more than 75 per cent of respondents send SNS messages to people and 75 per cent also use SNS platforms to join groups. Sixty-two per cent of SNS users update statuses

<sup>72</sup> Brown, Cheryl and Laura Czerniewicz, *Making Sense of Gender and ICTs in Education: Exploring Theoretical Explanations for Complex Findings*, University of Cape Town, 2010.

<sup>73</sup> Ibid.

<sup>74</sup> Ibid.

<sup>75</sup> ‘All Media Product Survey- Publiciti AMPS 2008A’, Research ICT Africa (RIA), 2009, ‘RIA e-Access & Usage Household Survey (database)’, SPSS statistics, <<http://www.ResearchICTAfrica.net>> (accessed 13 November 2011).

<sup>76</sup> Bryson, Donna, ‘Africa is the Fastest Growing Cell Phone Market’, *Daily News*, 13 November 2011, <<http://www.iol.co.za/dailynews/opinion/africa-is-fastest-growing-cellphone-market-1.1176766>> (accessed 12 March 2012).

<sup>77</sup> TNS Research Surveys, ‘Friendship 2.0’, 2009. <<http://www.mweb.co.za/services/friendship/downloads/Friendship%202.0%20presentation%20for%20Microsite.pdf>> (accessed 15 March 2012).

<sup>78</sup> TNS report with a representative sample of 401 Internet users aged 16 and older.

<sup>79</sup> TNS Research Surveys, ‘Friendship 2.0’, 2009, <<http://www.mweb.co.za/services/friendship/downloads/Friendship%202.0%20presentation%20for%20Microsite.pdf>> (accessed 15 March 2012).

regularly.<sup>80</sup> The high use of SNS messages among the sample could be due to the option of free messaging provided on SNS platforms. According to the study, 61 per cent upload photo and video content and search for other users.<sup>81</sup> This figure indicates high content creation among South Africans. Finally, 58 per cent invite friends to events and online groups, and 46 per cent follow other users' activities, using mobile devices.<sup>82</sup> These high figures represent interest in online association by adolescents and young people.

In 2009, Tino Kreutzer conducted a survey of 441 grade 11 students.<sup>83</sup> The schools were chosen as random cluster samples from all public secondary schools located in Cape Town's 50 per cent most deprived area.<sup>84</sup> The study revealed that 47 per cent of students use Mxit on a typical day, while only 20 per cent of students report having Facebook or Myspace profiles.<sup>85</sup> Kreutzer found that 84 per cent of students access the Internet on a typical day. Profile holders were particularly strong users of both computers and mobile phones, and reportedly use the Internet more frequently and intensely than non-profile holders.<sup>86</sup>

Although the TNS report finds Facebook as the leading social networking platform, most research finds Mxit as the leading social networking site. This may be due to varying methodologies and sample frame, such as age, socioeconomics and location-base of surveyed participants.<sup>87</sup> There is a global trend of decreasing use of Mxit and SMS activity with increase of age of young people.

There could also be a difference in the type of mobile device<sup>88</sup> ownership between the two samples. There is also a global trend of increasing use of Facebook mobile due to growth in smartphone technology. However, there is limited evidence of smartphone ownership and use in South Africa.

#### 4.1.1 Mxit Activity Use

Since its launch in 2003, Mxit has a total of 38 million registered users<sup>89</sup> in South Africa. During the month of March 2012, there were 6.38 million active users<sup>90</sup> in South Africa. These figures indicate Mxit continues to increase its user base as more South Africans have access to ICTs.

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<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> Other statistics: 62% update status, 61% search for someone, and 58% invite friends to events/online groups.

<sup>83</sup> Kreutzer, Tino, 'Generation Mobile: Online and Digital Media Usage on Mobile Phones among Low-Income Urban Young people in South Africa', 2009.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

<sup>87</sup> Kreutzer's analysis is based on a sample of mobile use while the TNS study includes both, computer and mobile devices.

<sup>88</sup> Function phones versus smartphones.

<sup>89</sup> Figure as of March 2012, includes clone and inactive accounts. 'Mxit Social Development'.

<sup>90</sup> Ibid.

Mxit is a free instant messaging, SNS application, operating on multiple mobile platforms and, much less frequently, on computers.<sup>91</sup> With the ability to send and receive text and multimedia messages with one-on-one conversations, chat rooms, play games, download music, access movie clips and news, and buy and sell products contained therein, the Mxit user base has grown exponentially.

This popular online activity has become an integral source of digital networking and communication, particularly among South African young people. According to Mxit demographics report, individuals 18 and older are amongst the most active users of Mxit: 47 per cent of 18-25 –year olds and 29 per cent of those over 25 years-old engage regularly on Mxit.<sup>92</sup> Additionally, 19 per cent of individuals aged 15-17 and 4 per cent of those aged 13-15 are also active Mxit users.<sup>93</sup> While the minimum age on Mxit is 13 years old, results show that a small percentage of survey respondents did report their age to be 10- to 14-years old (6 per cent), while a very small number stated their age as 5- to 9-years old (less than 1 per cent). It was also found that about 44 per cent of the respondents reported that they are currently in high school, while 17.7 per cent are currently attending or have graduated from university.<sup>95</sup>

Mxit offers popular digital applications for its users. Nearly 88 per cent of users rely on Mxit to chat with family and friends, while 34 per cent use the service to make new friends and meet people.<sup>96</sup> The social networking component of Mxit also allows South African young people to use Mxit for social and educational activity. According to the same UNICEF study cited above, 68 per cent of Mxit users spend most time online talking to family and friends and 16 per cent of respondents talk mostly to strangers/new friends. In addition, 11 per cent of respondents chat on Mxit in order to get a girlfriend, while 5 per cent of respondents do so to get a boyfriend. It is not clear whether these attempts at forming a relationship are undertaken with acquaintances or strangers. The most common topic of discussion while on Mxit for many of the respondents is love life and dating (46 per cent), while many users also spend time gossiping with family and friends (22 per cent). Still other users spend most time talking about entertainment topics like music, sports, fashion, and games (19 per cent). Other responses include school related topics (7 per cent), politics and global issues (3 per cent), and religion (less than 1 per cent). In general, pursuing and/or discussing romantic relationships with strangers and with acquaintances are prevalent conversation topics on Mxit.<sup>97</sup>

<sup>91</sup>This age limit is in compliance with the South African Films & Publications Amendment Act 3 of 2009, which sets restrictions on the distribution, exhibition and/or possession of films, publications and new media based on their content and suitability for different age groups.

<sup>92</sup> Figures as of February 2011 as the average for one year; Mxit (2011). Demographics Report: South Africa Platform Demographics.

<sup>93</sup> Ibid.

<sup>94</sup> According to a UNICEF study of representative sample of approximately 26,000 Mxit users in South Africa, it was found that the majority (53 per cent) of survey respondents are 18- to 24-years old, while 32 per cent fall between 15- to 17-years old and 8.5 per cent are reportedly 24 years and older. Hoveyda, Priscillia and Sinha, Akshay, *'From 'What's your ASLR' to 'Do You Wanna Go Private?'*, UNICEF, 2011, <[http://www.unicef.org/southafrica/SAF\\_resources\\_MXitstudy.pdf](http://www.unicef.org/southafrica/SAF_resources_MXitstudy.pdf)> (accessed 8 March 2012).

<sup>95</sup> Ibid.

<sup>96</sup> Ibid.

<sup>97</sup> Ibid.

Seventy-one per cent of Mxit users primarily accessing the service from personal mobile phones compared to the 7 per cent of users that access the online platform from a computer, and nearly 22 per cent of its total reported users access Mxit from both sources equally.<sup>98</sup> Further evidence has revealed that 46 per cent of users connected to Mxit once a day or more and that 22 per cent of users are connected for most of the day.<sup>99</sup>

Although Mxit use has gained popularity in South Africa, there is limited evidence on the scope or frequency of its use in rural, as compared to urban areas. However, UNICEF's primary data from 2011 concluded that, although major discrepancies in use exist based on urban/rural divide, the opportunity remains open to young people of all nine provinces of South Africa with 31 per cent of users from Gauteng, 21 per cent from Western Cape, and 16 per cent from KwaZulu-Natal. Unsurprisingly, these three provinces house the three most populated cities in South Africa—Johannesburg, Cape Town, and Durban, respectively. Across all provinces, 91 per cent of respondents live in urban areas<sup>100</sup> and 9 per cent in rural areas<sup>101</sup>.<sup>102</sup> Although we cannot determine from this cross-sectional statistic whether Mxit's rural penetration is expanding (since previous data does not exist with which to compare it), a recent study points to a trend towards increasing access to and usage of mobile technologies in rural South Africa<sup>103</sup>. As such, it is likely that the digital divide with regards to mobile phone and Mxit use will decrease in the coming years.

## 4.2 South Africa leads in 'Twittersphere'

Twitter has become the most popular micro-blogging website among the international community.<sup>104</sup> It offers an alternative method through which online users can share information and digital content: users can 'tweet' messages to other participants. Users can also view and post trending information online by including the hash tag symbol (#) in their tweets. This function allows all Twitter users to view recent and popular topics worldwide.

In an effort to map and analyze Twitter use in Africa, Portland Communications, a Kenya-based company, collaborated with the UK-based Company, Tweetminister, on a three month digital study to geo-locate<sup>105</sup> 11.5 million registered African Twitter users.<sup>106</sup> Among the poll of 500 of African users active tweeters, the study found South Africa having the most active tweeters in

<sup>98</sup>Figures as of February 2011 as the average for one year; Mxit (2011), 'Demographics Report: South Africa Platform Demographics'.

<sup>99</sup> Ibid.

<sup>100</sup> Please see Annex I.

<sup>101</sup> Ibid.

<sup>102</sup> Hoveyda, Priscillia and Sinha, Akshay, 'From 'What's your ASLR' to 'Do You Wanna Go Private?', UNICEF, 2011, <[http://www.unicef.org/southafrica/SAF\\_resources\\_MXitstudy.pdf](http://www.unicef.org/southafrica/SAF_resources_MXitstudy.pdf)> (accessed 8 March 2012).

<sup>103</sup> World Wide Worx 2011.

<sup>104</sup> Facebook use would surpass that of Twitter when recognized as a microblogging tool.

<sup>105</sup> SouthAfrica.Info, 'SA leads Africa's Growing Twittersphere', 27 January 2012, <<http://www.southafrica.info/about/media/twitter-270112.htm>> (accessed 14 February 2012).

<sup>106</sup> Ibid.

Africa.<sup>107</sup> The study results revealed that South African users have tweeted 5,030,226 times, or nearly twice as many times as those in Kenya, who have tweeted 2,476,800.<sup>108</sup> Other African countries active on Twitter include Nigeria (1,646,212 tweets), Egypt (1,214,062 tweets), and Morocco (745,620 tweets).<sup>109</sup> According to the study, 57 per cent of tweets are sent from mobile devices.<sup>110</sup>

The study revealed the young people comprise a larger percentage of the Africa twittersphere than they do elsewhere: 60 per cent of African Twitter users from the ages of 21 to 29 years old,<sup>111</sup> whereas the average Twitter user is 39 years old.<sup>112</sup>

In Africa, Twitter is used for social conversation. Eighty-one per cent of surveyed users responded that they use Twitter to converse with friends.<sup>113</sup> Twitter is also becoming a key source of information in the region. Sixty-eight per cent of users reported using Twitter to access international news, while 68 per cent of users use it to monitor national news, and 22 per cent of users access it to search for employment opportunities.

However, there is limited hard evidence indicating Twitter access and use among younger populations disaggregated by age, location, race, and gender

### 4.3 Mobile-Banking Use

While mobile ownership is expanding in South Africa, Internet-capable mobiles have provided an alternative banking method for online users. Mobile banking has started to lead Africa in the adoption of mobile-banking solutions that aim to reach the unbanked.<sup>114</sup> In South Africa, mobile-banking applications provide rural<sup>115</sup> and urban<sup>116</sup> dwellers easier banking options for both business and personal uses.<sup>117</sup>

In 2004 and 2005, WIZZIT and MTN Banking each developed mobile-banking applications to address the financial service needs of low-income customers. Bank account applications provided an alternative source through which mobile customers can access online payment

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<sup>107</sup> Ibid.

<sup>108</sup> Ibid.

<sup>109</sup> Ibid.

<sup>110</sup> Ibid.

<sup>111</sup> Ibid.

<sup>112</sup> Ibid.

<sup>113</sup> Portland Communications, 'How Africa Tweets', 2012, <[http://www.portlandcommunications.com/Twitter\\_in\\_Africa\\_PPT.pdf](http://www.portlandcommunications.com/Twitter_in_Africa_PPT.pdf)> (accessed 30 Apr. 2012).

<sup>114</sup> Makin, Paul. 'Regulatory Issues Around Mobile Banking: New Initiatives to Bank the Poor are Straining the World's Financial Regulatory Systems, OECD, 2009, <<http://www.oecd.org/dataoecd/40/24/43631885.pdf>> (accessed 16 March 2012).

<sup>115</sup> Please see Annex I.

<sup>116</sup> Please see Annex I.

<sup>117</sup> Ibid.

instruments. The first WIZZIT platform proved to be a successful venture: 300,000 newly signed customers reportedly used the mobile application.<sup>118</sup>

Interestingly, WIZZIT does not have any physical branches in South Africa. However, in collaboration with South African post offices and the ABSA Bank, WIZZIT customers have access to nearly 3,500 deposit sites.<sup>119</sup> Customers are issued debit cards and can withdraw money at any South African ATM machine.<sup>120</sup> With a multi-function online service, bank clients can operate services including direct access to money transfers, checking balances online, purchasing pre-paid mobile credits and subscriptions. Alternatively, business owners can use WIZZIT to pay their staff by paying employees electronically.

Evidently, online banking is becoming a popular mobile application, since major South African banks have rolled out mobile banking applications across digital platforms. However, there is limited hard evidence indicating mobile-banking access and use among populations disaggregated by age, location, race, and gender.

## 5.0 SAFETY RISKS

“The children were on Mxit or texting all the time and they’d say horrible things to each other. They don’t have personal boundaries because it’s not face-to-face. They would say whatever they like because they’re just talking to a machine,”<sup>121</sup> a South African teacher discusses about the repercussions of ICT activity among South African young people.

The rapid development of ICT access, social networking sites, and widespread access to mobile telephony has provided powerful avenues for sharing digital information and content in South Africa. However, these digital mediums have also created an online arena for risks such as cyberbullying, exposure to inappropriate content and piracy.

The Nelson Mandela Bay study asked 1,594 students at three primary and three secondary schools, who ranged across grades six to 12,<sup>122</sup> in the Nelson Mandela Bay area, to complete a questionnaire regarding their online habits.<sup>123</sup> The results found that 5.8 per cent of the students spend more than four hours a day on the Internet; of this 5.8 per cent, 37 per cent report using the Internet in their bedrooms.<sup>124</sup> In South Africa, online authorization to view various websites is not necessarily required, since 63 per cent of students did not have to ask for permission

<sup>118</sup>CGAP, ‘Update on Regulation of Branchless Banking in South Africa’, 2010 <[http://www.cgap.org/gm/document-1.9.42404/Updated\\_Notes\\_On\\_Regulating\\_Branchless\\_Banking\\_South\\_Africa.pdf](http://www.cgap.org/gm/document-1.9.42404/Updated_Notes_On_Regulating_Branchless_Banking_South_Africa.pdf)> (accessed 15 March 2012).

<sup>119</sup> Ibid.

<sup>120</sup> Ibid.

<sup>121</sup> de Lange, Mariska and Rossouw von Solms, ‘Children at Risk of Online Activity’, *Mail&Guardian*, 4 February 2011, <<http://mg.co.za/article/2011-02-04-children-at-risk-of-online-bullying>> (accessed 7 February 2012).

<sup>122</sup> Professor Rossouw von Solms is director of the Institute for ICT Advancement at Nelson Mandela Metropolitan University and Mariska de Lange is a master’s student in information technology at the university.

<sup>123</sup> de Lange, Mariska and Rossouw von Solms, ‘Children at Risk of Online Activity’, *Mail&Guardian*, 4 February 2011, <<http://mg.co.za/article/2011-02-04-children-at-risk-of-online-bullying>> (accessed 7 February 2012).

<sup>124</sup> Ibid.

before accessing the Internet, and more than 54 per cent were not supervised using the Internet.<sup>125</sup>

Although the Internet is a tool to express and share information, it can be used also as a platform to send information about an individual, without his/her consent.

## 5.1 Cyberbullying: from online to offline

The traditional notion of face-to-face bullying has expanded in the digital realm, where offline bullying is extended into online bullying from offline acquaintances and strangers online. Cyberbullying was first defined as, “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices.”<sup>126</sup>

The CRC, and its Optional Protocols, guarantees the child the protection from all forms of violence, exploitation and abuse. General Comment no. 13 of the CRC Committee ‘The Right of the Child to Freedom from All Forms of Violence’ outlines some of the child protection risks in relation to information and communication technologies (ICTs). This includes children as users of ICTs: “As children in contact with others through ICTs, children may be bullied, harassed or stalked (child “luring”) and/or coerced, tricked or persuaded into meeting strangers off-line, being “groomed” for involvement in sexual activities and/or providing personal information.”<sup>127</sup> Even though bullying is a phenomenon that existed well before the creation of the mobile phones and World Wide Web, the two mediums have magnified the problem by creating a new venue through which bullying can be executed. When perpetrated via telephone medium or online, cyberbullying is eased by the apparent anonymity and distance from the victim.<sup>128</sup>

In South Africa, cyberbullying has become a true safety risk. News sources reveal that young boys and girls are victims of cyberbullying<sup>129 130</sup> and national studies have confirmed these findings.<sup>131</sup>

<sup>125</sup> Ibid.

<sup>126</sup> Center for International Development at Harvard University, Information Technologies Group, <[http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/RAB\\_Lit\\_Review\\_121808\\_0.pdf](http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/RAB_Lit_Review_121808_0.pdf)> (accessed 24 May 2012).

<sup>127</sup> Committee on the Rights of the Child CRC/C/GC/13, Fifty-sixth session, Geneva, 17 January - 4 February 2011

<sup>128</sup> Hoveyda, Priscillia and Sinha, Akshay, ‘From ‘What’s your ASLR’ to ‘Do You Wanna Go Private?’’, UNICEF, 2011, <[http://www.unicef.org/southafrica/SAF\\_resources\\_MXitstudy.pdf](http://www.unicef.org/southafrica/SAF_resources_MXitstudy.pdf)> (accessed 8 March 2012).

<sup>129</sup> City Press, ‘School Girl Charged with Assault’, 8 February 2012, <<http://www.citypress.co.za/SouthAfrica/News/School-girl-charged-with-assault-20120208>> (accessed 16 March 2012).

<sup>130</sup> Brodie, Nachma, ‘Mean Girls Get Meaner Online’, *Mail&Guardian*, 21 January 2011, <<http://mg.co.za/article/2011-01-21-mean-girls-get-meaner-online>> (accessed 16 March 2012).

<sup>131</sup> Ipsos, ‘One in Ten (12%) Parents Online, Around the World Say Their Child Has Been Cyberbullied, 24% Say They Know of a Child Who Has Experienced Same in Their Community’, Press Release, 9 January 2012, <<http://www.ipsos-na.com/news-polls/pressrelease.aspx?id=5462>> (accessed 16 March 2012).

A 2009 TNS report analyzed a representative sample of 401 SNS users, aged 16 and older and found that 3 per cent of surveyed respondents have been victims of cyberbullying.<sup>132</sup> Another study by CJCP surveyed 1,726 urban young people aged 12-24 years old in the four largest cities in South Africa.<sup>133</sup> The study found that 46.8 per cent had experienced some form of cyberbullying, including verbal telephone harassment.<sup>134</sup> Similarly, a UNICEF study also found that 26 per cent of the respondents experienced insults on Mxit. Of those that experienced insults, 28 per cent reported that the insults were race-based in nature.<sup>135</sup> Different access points were identified as cyberbullying recipient locations, with 31 per cent of young people experiencing cyberbullying at school and 42.9 per cent experiencing cyberbullying outside of school.<sup>136</sup> However, it is a limitation of the research to conclude where the recipients first came into contact with cyberbullying.

As ICT access and use grow in South Africa, youth have been victim to cyberbullying through various types of digital communications. Nearly 28 per cent of CJCP interviewees reported voice calls as the most frequent medium of cyberbullying, while 26.6 per cent reported SMS and 12.2 per cent instant messaging as most frequent.<sup>137</sup> The least used mediums for cyberbullying were e-mail messages (6.4 per cent) followed by websites (4.4 per cent).<sup>138</sup> That said, the particularly high frequency of cyberbullying through mobile phones might be due to the fact that mobiles are the most commonly used ICT equipment among this age group.

A higher percentage of girls were found to be victims of cyberbullying than boys in South Africa.<sup>139</sup> During its 12-month pre-study period, the CJCP reported that 33 per cent of girls and only 29 per cent of boys had experienced cyberbullying.<sup>140</sup>

Interestingly, research studies found that former victims of face-to-face bullying<sup>141</sup> often became perpetrators of cyberbullying.<sup>142</sup> Reportedly, 70 per cent of those who used text messages to bully others were former victims.<sup>143</sup> In addition to danah boyd and Andrew Schrock's research, *Problematic Youth Interactions Online: Solicitation, Harassment, and Cyberbullying* where

<sup>132</sup> Research Surveys, 'Friendship 2.0, 2009, <<http://www.mweb.co.za/services/friendship/downloads/Friendship%202.0%20presentation%20for%20Microsite.pdf>> (accessed 15 February 2012).

<sup>133</sup> Badenhorst, Charmain, *Legal Responses to Cyberbullying and Sexting in South Africa*, Centre for Justice and Crime Prevention, Issue Paper No. 10, Cape Town, 2011, <<http://www.cjcp.org.za/admin/uploads/Issue%20Paper%2010-1.pdf>> (accessed 15 February 2012).

<sup>134</sup> Ibid.

<sup>135</sup> Hoveyda, Priscillia and Sinha, Akshay, 'From 'What's your ASLR' to 'Do You Wanna Go Private?', UNICEF, 2011, <[http://www.unicef.org/southafrica/SAF\\_resources\\_MXitstudy.pdf](http://www.unicef.org/southafrica/SAF_resources_MXitstudy.pdf)> (accessed 8 March 2012).

<sup>136</sup> Badenhorst, Charmain, *Legal Responses to Cyberbullying and Sexting in South Africa*, Centre for Justice and Crime Prevention, Issue Paper No. 10, Cape Town, 2011, <<http://www.cjcp.org.za/admin/uploads/Issue%20Paper%2010-1.pdf>> (accessed 15 February 2012)

<sup>137</sup> Ibid.

<sup>138</sup> Ibid.

<sup>139</sup> Ibid.

<sup>140</sup> Ibid.

<sup>141</sup> Ibid.

<sup>142</sup> Ibid.

<sup>143</sup> Ibid.

online recipients of cyberbullying can also act as perpetrators.<sup>144</sup> There is limited evidence between the linkage of offline and online bullying and victims turned perpetrators, and further research is needed.

The Nelson Mandela Bay study found that 36 per cent of student participants had experienced some form of cyberbullying; of this nearly half had not shared, nor told anybody about their incident.<sup>145</sup> The other half of students who had not experienced cyberbullying would speak to someone about it. When students were asked who they would tell about experiences with cyberbullying results indicated that about 50 per cent of students would choose to speak with a peer or friend, 40 per cent would talk to a parent, and only 2 per cent would speak to a teacher.<sup>146</sup> A similar trend was found in the EU Kids Online study. In that study, 77 per cent of children surveyed aged 9-16 who had been cyberbullied had talked to someone about it: 52 per cent told their friends and 42 per cent told their parents.<sup>147</sup> Both research point to the conclusion that adolescents and youths are more comfortable speaking about cyberbullying victimization with their peers.

The UNCRC, which “protects the economic, social, political, civil, health, and cultural rights of children”<sup>148</sup>, specifies in Article 19, that children shall be protected from all forms of violence.<sup>149</sup> General Comment 13, coming into effect in April 2011, additionally addressed child violence and potential digital safety risks.<sup>150</sup>

Prior to Article 19 establishment, the term violence was defined as, “all forms of physical/mental violence, injury or abuse, neglect, or negligent treatment, maltreatment or exploitation.”<sup>151</sup> However, the Committee of UNCRC emphasized, “term violence in the present general comment must not be interpreted in any way to minimize the impact of, and need to address, non-physical and/or non-intentional forms of harm (such as, inter alia, neglect and psychological maltreatment).”<sup>152</sup> This General Comment makes specific note of “mental violence”<sup>153</sup> and includes the following: “Psychological bullying and hazing by adults or other children, including via information and communication technologies (ICTs) such as mobile phones and the Internet

<sup>144</sup> boyd, danah and Andrew Schrock, *Problematic Youth Interactions Online: Solicitation, Harassment, and Cyberbullying*, Chapter 19 in *Computer-Mediated Communication in Personal Relationship*, Peter Lang Publishing, 2010.

<sup>145</sup> de Lange, Mariska and Rossouw von Solms, ‘Children at Risk of Online Activity’, *Mail&Guardian*, 4 February 2011, <<http://mg.co.za/article/2011-02-04-children-at-risk-of-online-bullying>> (accessed 7 February 2012).

<sup>146</sup> Ibid.

<sup>147</sup> The London School of Economics, ‘Risks and safety on the Internet,’ 2010, <<http://www2.lse.ac.uk/media@lse/research/EUKidsOnline/EUKidsII%20%282009-11%29/EUKidsOnlineIIReports/D4FullFindings.pdf>> (accessed 29 April 2012).

<sup>148</sup> UNICEF, ‘Fact Sheet: A Summary of the Rights under the Convention on the Rights of the Child’, <[http://www.unicef.org/crc/files/Rights\\_overview.pdf](http://www.unicef.org/crc/files/Rights_overview.pdf)> (accessed 28 February 2012).

<sup>149</sup> Ibid.

<sup>150</sup> Committee on the Rights of the Child CRC/C/GC/13, Fifty-sixth session, Geneva, 17 January - 4 February 2011

<sup>151</sup> Ibid.

<sup>152</sup> Ibid.

<sup>153</sup> Ibid.

(known as “cyberbullying”).<sup>154</sup> This General Comment provides guidance for States to “understand their obligations in preventing and prohibiting child violence.”<sup>155</sup>

The General Comment pursues upon the importance of crafting of appropriate legislation that provides adequate protection for children as well as funding and programming of education initiatives around ICTs’ risks for children.

Under South African law, cyberbullying is considered an unlawful infringement on privacy. In addition to cyber harassment, cyber stalking and cyber aggression, cyberbullying involves criminal defamation, which causes harm to an individual’s reputation by explicit intentional publications, which threatens to “electronically distribute information of another person” without consent.<sup>156</sup> However, under Section 384 of the Criminal Procedure Act of 1955 (Act 56 of 1955), “a person who has been a victim of violent conduct by another person, or who has been threatened with injury to himself or herself or to his or her property by another person, or where the other person has used language or behaved in a manner towards the victim that is likely to provoke the breach of peace or assault, that person may approach a magistrate for an order to keep the peace.”<sup>157</sup> The Department of Communications is also in the process of finalizing a Children’s and ICT strategy that explicitly addresses cyberbullying and online safety.

South African national news outlets had unveiled cases of cyberbullying among South African children and young people. The case of a 16-year old South African girl, who became a victim of cyberbullying on Mxit, prompted a mother to actively seek legal order after the daughter had shared news of victimization in Springs, Gauteng.<sup>158</sup> Reportedly, the victim’s name appeared on a Mxit ‘slut list’<sup>159</sup> along with other names of girls from various schools, including home addresses, telephone number. The mother filed for and obtained a peace order in order to protect her daughter from cyberbullying, and prevent the perpetrators from continuing their actions.<sup>160</sup> The example of the Gauteng 16- year old girl case demonstrates the High Court of South Africa granting an order to “restrain”<sup>161</sup> perpetrators of cyberbullying from “continuing a wrongful act.”<sup>162</sup>

In line with preventing cyberbullying, the Harassment Bill of 2010, (Bill 1 of 2010) tabled by Parliament of South Africa outlaws “forms of harassment in South Africa, which is wide enough

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<sup>154</sup> Ibid.

<sup>155</sup> UNICEF, ‘Fact Sheet: A Summary of the Rights under the Convention on the Rights of the Child’, <[http://www.unicef.org/crc/files/Rights\\_overview.pdf](http://www.unicef.org/crc/files/Rights_overview.pdf)> (accessed 28 February 2012).

<sup>156</sup> Ibid.

<sup>157</sup> Republic of South Africa, Section 384 of the Criminal Procedure Act of 1955.

<sup>158</sup> Badenhorst, Charmain, *Legal Responses to Cyberbullying and Sexting in South Africa*, Centre for Justice and Crime Prevention, Issue Paper No. 10, Cape Town, 2011, , <<http://www.cjcp.org.za/admin/uploads/Issue%20Paper%2010-1.pdf>> (accessed 15 February 2012).

<sup>159</sup> Ibid.

<sup>160</sup> Ibid.

<sup>161</sup> Badenhorst, Charmain, *Legal Responses to Cyberbullying and Sexting in South Africa*, Centre for Justice and Crime Prevention, Issue Paper No. 10, Cape Town, 2011, , <<http://www.cjcp.org.za/admin/uploads/Issue%20Paper%2010-1.pdf>> (accessed 15 February 2012).

<sup>162</sup> Ibid.

to include acts of cyberbullying.”<sup>163</sup> It is projected for implementation, and if passed, the bill will allow victims to receive a protection order against anyone who is harassing them by “verbal, electronic, or any other communication aimed at the complainant or a related person.”<sup>164</sup>

## 5.2 Sexting

Articles 19 and 34 of the UNCRC require that States shall ensure the protection of children from all forms of abuse, including sexual abuse.

Sexting, defined by the CJCP, is the act of “sending nude or semi-nude photos or videos, including sexually suggestive messages through mobile phone texting or instant messaging.”<sup>165</sup>

This form of communication within South African law, under Section 19 of the Criminal Law Amendment Act, 2007 is a punishable crime. This applies to children under the age of 16-years old. Therefore sexting between 16 or 17-years old is not a criminal offense.<sup>166</sup> The law states, “any person exposing or displaying, or causing exposure or display, of child pornography to a child is guilty of the offence of exposing or displaying, or causing the exposure or display, of child pornography or pornography to a child.”<sup>167</sup> As a result, and in accordance with this Act, a conviction will “result in the child’s name being registered as a sex offender in the national register for sex offenders.”<sup>168</sup>

Within the same Act, under section 22, “sexting between children may also fall within the ambit, which prohibits exposing or displaying genital organs, anus or female breasts to children. Causing such exposure or display is also prohibited in terms of this section. Exposing or displaying genital organs, anus or female breasts to a child is a sexual offence.”<sup>169</sup> Yet, if a child is responsible for sending an explicit photo “of genital organs, anus or female breasts to another child, he or she runs the risk of being charged and convicted of contravening this section. Also, if a child aids, abets, induces, incites, instigates, instructs, commands, counsels or procures another child to take and send such a photo of the latter to the first child or any other person, he or she will be liable in terms of section 55 of the Act.”<sup>170</sup>

Additionally, the Films and Publications Amendment Act, 2009, under Section 24B, posits that, “any person who unlawfully possesses or creates, produces or in any way contributes to, or assists in the creation or production of any film, game or publication which contains depictions, descriptions or scenes of child pornography or which advocates, advertises, encourages or

<sup>163</sup> Republic of South Africa, *Protection from Harassment Bill*, published in Government Gazette No. 32922 of 1 February 2010.

<sup>164</sup> Ibid.

<sup>165</sup> Burton, Patrick and Tariro Mutongwizo, *Inescapable Violence: Cyber Bullying and Electronic Violence against Young People in South Africa*, Centre for Justice and Crime Prevention, Issue Paper No. 8, Cape Town, 2009.

<sup>166</sup> Assuming that the party photographed is above 16-years old.

<sup>167</sup> Republic of South Africa, *Criminal Law (Sexual Offences and Related Matters) Amendment Act, 2009*, Vol 510, published in Government Gazette 14 December 2007.

<sup>168</sup> Ibid.

<sup>169</sup> Ibid.

<sup>170</sup> Ibid.

promotes child pornography or the sexual exploitation of children, shall be guilty of an offence.”<sup>171</sup> The form of a publication includes “visual presentation, placed on any distributed network including, but not confined to, the Internet.”<sup>172</sup>

The South African legislation, under the Child Justice Act, 2008 (Act 75 of 2008), implemented on April 1, 2010<sup>173</sup> creates a separate criminal justice system for children. It states that “any child who commits a criminal offence will be dealt with in terms of the Act, including those who commit acts of cyberbullying which fall within the ambit of the definition of a specific crime, and those engaged in sexting which is classified as child pornography.”<sup>174</sup> The South Africa Child Justice Act is a positive step in addressing criminalisation of juvenile delinquents in line with the other international instruments, such as CRC.

### 5.3 Talking with and meeting strangers

The digital world presents an opportunity for individuals to exchange ideas and content without meeting in person. That said, information sharing and chatting online often prompts individuals to meet in-person. This practice can have incredible repercussions for children who choose to meet with online friends face-to-face. In South Africa, news reports and research studies have indicated that young people are increasingly meeting strangers online and, subsequently, meeting them in person.<sup>175</sup>

Currently, no laws exist in reprimanding false online registration by the South African online community, allowing for certain risks to emerge. Firstly, young online users may be gaining online access to digital platforms such as Mxit by falsifying their age online. Secondly, older aged users could be falsifying their age online for establishing relationships with younger users. According to danah boyd and Andrew Schrock’s research, *Problematic Youth Interactions Online: Solicitation, Harassment, and Cyberbullying*, there is a prevalence of “sign(ing) up for an online service using inaccurate or fake information.”<sup>176</sup>

According to a UNICEF study, it was also found that 42 per cent of young peoples talk to strangers on Mxit everyday and 33 per cent doing so at least once a week. The high frequency with which Mxit users are interacting with strangers raises questions about the extent to which they may be sharing personal information with those strangers and/or meeting them offline.<sup>177</sup>

<sup>171</sup> Republic of South Africa, *Film and Publications Amendment Act, 2009*, Vol.530, published in Government Gazette 28 August 2009.

<sup>172</sup> Ibid.

<sup>173</sup> Republic of South Africa, *Child Justice Act, 2008*, Vol.527, published in Government Gazette 11 May 2009, enacted 1 April 2010.

<sup>174</sup> Ibid.

<sup>175</sup> Chigona, A, Chigona, W, Mpofo, Sicelo and Bomkazi Ngqokelela, *MXIT: Uses, Perceptions and Self-justifications*, University of Cape Town: Cape Town, 2009.

<sup>176</sup> boyd, danah and Andrew Schrock, *Problematic Youth Interactions Online: Solicitation, Harassment, and Cyberbullying*, Chapter 19 in *Computer-Mediated Communication in Personal Relationship*, Peter Lang Publishing, 2010.

<sup>177</sup> Hoveyda, Priscillia and Sinha, Akshay, *‘From ‘What’s your ASLR’ to ‘Do You Wanna Go Private?’*, UNICEF, 2011, <[http://www.unicef.org/southafrica/SAF\\_resources\\_MXitstudy.pdf](http://www.unicef.org/southafrica/SAF_resources_MXitstudy.pdf)> (accessed 8 March 2012).

The Nelson Mandela Bay study, discussed above found that 40 per cent of students had met someone in person after having chatted online. Thirty per cent of students reported meeting a stranger in person who differed significantly from what they anticipated.<sup>178</sup> A TNS study, although with a smaller sample size and unknown age group range, found 24 per cent had met offline after meeting online.<sup>179</sup>

Although Internet subscribers use online chat services to exchange information and ideas with other users, evidence suggests that meeting strangers often bears negative implications of Internet use. In South Africa, news reports have uncovered numerous examples of teenage girls who meet up with older men after having met online.<sup>180</sup> In 2010, according to a news report, a 15-year old girl was drugged and raped by a 27-year old man she met on Mxit.<sup>181</sup> In 2011, a similar case led to rape of a 20-year old by three men.<sup>182</sup>

Although the incidents presented above are anecdotal and media tends to over report and misreport such instances, it is sufficient to underline a need to educate children and young people in their use of Internet and the implications such an encounter may have.

#### 5.4 Sexually explicit and child abuse images and videos

ICT access and use presents opportunities for children to become exposed to “disturbing, harmful, and age-inappropriate”<sup>183</sup> content online. The FPB report included a survey of 943 13-17+ year olds in randomly selected schools in Cape Town, Durban and Johannesburg.<sup>184</sup> The 2006 report found that young girls and boys have been exposed to pornographic digital images shared on digital mediums. The results found that 64 per cent of students have been exposed to pornographic images on the Internet; more specifically, 74 per cent of boys and 52 per cent of girls have been exposed to such materials.<sup>185</sup> Seventy per cent of surveyed students reported that they came across pornographic images on digital mediums “accidentally.”<sup>186</sup>

According to the report, mobile Internet access and ownership makes it easier for South African young people to become exposed to sexual content online, 88 per cent of surveyed students

<sup>178</sup> de Lange, Mariska and Rossouw von Solms, ‘Children at Risk of Online Activity’, *Mail&Guardian*, 4 February 2011, <<http://mg.co.za/article/2011-02-04-children-at-risk-of-online-bullying>> (accessed 7 February 2012).

<sup>179</sup> TNS Research Surveys, ‘Friendship 2.0’, 2009, <<http://www.mweb.co.za/services/friendship/downloads/Friendship%202.0%20presentation%20for%20Microsite.pdf>> (accessed 15 February 2012).

<sup>180</sup> IOL News, ‘Teen in Mxit Rape Ordeal’, 6 August 2010, <<http://www.iol.co.za/news/south-africa/teen-in-Mxit-rape-ordeal-1.672193>> (accessed 29 February 2012).

<sup>181</sup> Ibid.

<sup>182</sup> Turn It Around, ‘Mxit Date Ends in Rape’, 25 July 2011, <[http://www.turnitaround.co.za/news/news\\_article/299/Mxit-date-ends-in-rape](http://www.turnitaround.co.za/news/news_article/299/Mxit-date-ends-in-rape)> (accessed 28 February 2012).

<sup>183</sup> Basson, Antoinette and Iyavar Chetty, ‘Report on Internet Usage and the Exposure of Pornography to South African Schools’, Film and Publications Board, Research Report, 2006.

<sup>184</sup> Ibid.

<sup>185</sup> Ibid.

<sup>186</sup> Ibid.

reportedly own their own mobile phone, and 33 per cent reported having received pornographic images from personal mobile phones.<sup>187</sup>

Of the students who were exposed to pornographic content online, 52 per cent reported looking at the images before exiting the site, and 38 per cent were “not bothered”<sup>188</sup> by the content they encountered. That said, male and female students had different reactions to pornographic images; “while more boys claimed not to be bothered by pornography they encounter online, most girls felt disgusted.”<sup>189</sup>

An additional FPB report in 2008 investigated the impact of sexual abuse through ICTs. South African students, between the ages of 10 to 12-years old (grade five to seven) and 13 to 15-years old (grade eight to nine) and living in Johannesburg, Durban and Cape Town, were surveyed.<sup>190</sup> The study conducted 604 total questionnaires and 37 completed interviews.<sup>191</sup>

The study revealed that exposure to “worrying content” on the Internet including “sexual nature and nudity” content befell 22 per cent of surveyed participants.<sup>192</sup> The online forms, like chat rooms, served as a platform among 14 per cent who had been exposed to “distressing content” and have had “sexual advances” made to them.<sup>193</sup> Furthermore, results revealed that 12 per cent of surveyed individuals had been exposed to “distressing content” via cell phones. A majority of this so-called distressing content was of a sexual nature, though 7 per cent reported having been exposed to mostly violent and sexual content via email.<sup>194</sup>

Young South Africans express their concern for the Internet throughout the interviews conducted. As one young girl shared during her interview, “I don’t really like going to the Internet anymore, because I am scared.”<sup>195</sup> Exposure to sexual and violent imagery has psychological effects among South African young people. A report released by the Young people Research Unit (YRU) at the University of South Africa (Unisa) had surveyed 1000 young South Africans aged 12 to 25-years old.<sup>196</sup> This report found that 17.8 per cent of participants had, at one time, felt worried or threatened by online harassment, that 30.8 per cent were faced with an “unwanted discussion about sex”<sup>197</sup> online, and that 12.6 per cent had been “asked to do something sexual” online.<sup>198</sup>

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<sup>187</sup> Ibid.

<sup>188</sup> Ibid.

<sup>189</sup> Ibid.

<sup>190</sup> Film and Publications Board, ‘Technology puts children under threat’, (2008) via ‘Research report on child pornography’, see: <<http://www.info.gov.za/speeches/2008/08052111451005.htm>> (accessed 16 March 2012).

<sup>191</sup> Ibid.

<sup>192</sup> Ibid.

<sup>193</sup> Ibid.

<sup>194</sup> Ibid.

<sup>195</sup> Ibid.

<sup>196</sup> Young people Research Unit, Age-inappropriate Viewing and Online Victimization among South African Young people. Bureau of Market Research, Unisa, May 2011.

<sup>197</sup> Ibid.

<sup>198</sup> Ibid.

ICT outlets provide different forms of age-restricted content shared with online users. The YRU study found that 20.2 per cent of respondents had come across a website with photos of naked people and of people having sex, and that 18.6 per cent of participants had received emails and instant messages with advertisements and/or links to X-rated websites.<sup>199</sup>

The report found that male South Africans are more likely to engage in unsafe online activities than females, which may put them at greater risk of becoming victims of online “victimisation”<sup>200</sup> based upon their survey results. Young males are particularly at risk of exposure to indecent content. 51.3 per cent of male respondents had received emails or instant messages with advertisements for, or links to, age restricted websites; while half of male respondents reported opening messages showing nude photos or people having sex, and have accessing websites showing such material.<sup>201</sup>

These research findings, coming from different sources and sample sizes, create awareness of sexual and violent imagery disseminated on ICT outlets in South Africa. However, there have been recent government efforts in protection of children from harmful content online. One of these legislations is the Internet and Cellphone Pornography Bill, 2010,<sup>202</sup> making it, “illegal for Internet and Mobile phone service providers in the Republic of South Africa to distribute or permit to be distributed pornography, so as to ensure protection for children and women.”<sup>203</sup>

## 5.5 Breach of Privacy

According to Article 14 of the South African Constitution, it is unlawful to intrude into the personal life of another. “Everyone has the right to privacy, which includes the right not to have their property searched; or the privacy of their communications infringed.”<sup>204</sup> However, with online content sharing and electronic communication, research studies have revealed a breach in privacy among Internet users. A TNS study found that 21 per cent of surveyed South African respondents had experienced a breach of their privacy<sup>205</sup> on the Internet.<sup>206</sup>

With the development of smartphones, social networking sites and mobile networks have created applications that track the location of mobile users. ‘Geo-tagging’ and ‘check-in’

<sup>199</sup> Ibid.

<sup>200</sup> Ibid.

<sup>201</sup> Ibid.

<sup>202</sup> The bill was drafted by the Justice Alliance of South Africa (JASA).

<sup>203</sup> Republic of South Africa, *Internet and Cellphone Pornography Bill, 2010*, via JASA <<http://www.jasa.za.net/download/pl-2010%20Internet%20Porn%20Bill.pdf>> (accessed 17 March 2012).

<sup>204</sup> South African Government Information, South African Constitution, see: <<http://www.info.gov.za/documents/constitution/1996/96cons2.htm#14>> (accessed 16 March 2012).

<sup>205</sup> Breach of privacy was not defined in the TNS study.

<sup>206</sup> Research Surveys, ‘Friendship 2.0,’ 2009, <<http://www.mweb.co.za/services/friendship/downloads/Friendship%20.0%20presentation%20for%20Microsite.pdf>> (accessed 29 April 2012).

features<sup>207</sup> are offered on Twitter and Facebook, which are also actively used among South African young people. While a person may use this feature and tag accompanied friends and their location, it can also be used by strangers to find location of individuals.

Privacy has become difficult to maintain in the digital sphere. The UNCRC under Article 16, states, “no child shall be subjected to arbitrary or unlawful interference with his or her privacy, family, or correspondence, nor to unlawful attacks on his or her honour and reputation.”<sup>208</sup> This offline protection clause should be extended to the online community, with practical and ethical judgment, where the child is allowed to practice his/her rights to access digital information and express opinions.

## 6.0 ASSESSING ONLINE SAFETY RISKS

When it comes to digital safety risks, including those mentioned above, important considerations must be taken into account. The Internet is not inherently dangerous; it is the off-line human behaviour that is reflected online. As evidenced by a study conducted in the UK by Sonia Livingstone and Ellen Helsper, children’s online communication activities can be predicted by their offline characteristics, particularly their levels of life satisfaction and risk-taking.<sup>209</sup> Similarly, as argued by danah boyd from Harvard’s Berkman Center for Internet & Society, “[p]eople may have a tendency to blame the technology that forces them to confront disturbing behaviors—not realizing that technology is only the messenger”.<sup>210</sup>

<sup>207</sup> Vermeulen, Jan. ‘Facebook Check-in Deals SA details revealed,’ *MyBroadband*, 30 Aug. 2011, <<http://mybroadband.co.za/news/internet/32862-facebook-check-in-deals-sa-details-revealed.html>> (accessed 22 Apr. 2012).

<sup>208</sup> UN General Assembly, *Convention on the Rights of the Child*, 20 November 1989, United Nations, Treaty Series, vol. 1577, available at: <<http://www.unhcr.org/refworld/docid/3ae6b38f0.html>>. (accessed 17 March 2012)

<sup>209</sup> Livingstone, Sonia and Helsper, Ellen (2007) ‘Taking risks when communicating on the internet: the role of offline social-psychological factors in young people’s vulnerability to online risks. *Information, communication and society*, 10 (5). pp. 619-643. <[http://eprints.lse.ac.uk/4254/1/Taking\\_risks\\_whe](http://eprints.lse.ac.uk/4254/1/Taking_risks_whe) and Helsper, Ellen (2007) ‘Taking risks when communicating on the internet: the role of offline social-psychological factors in young people’s vulnerability to online risks. *Information, communication and society*, 10 (5). pp. 619-643. <[http://eprints.lse.ac.uk/4254/1/Taking\\_risks\\_when\\_communicating\\_on\\_the\\_internet\\_%28LSERO\\_version%29.pdf](http://eprints.lse.ac.uk/4254/1/Taking_risks_when_communicating_on_the_internet_%28LSERO_version%29.pdf)> n\_communicating\_on\_the\_internet\_%28LSERO\_version%29.pdf>, (Accessed 26 December 2011).

<sup>210</sup> boyd, dana, Berkman Center for Internet & Society, Harvard University, ‘Special Report: Kids, Data, and Internet Safety’, 30 March 2010, <[http://cyber.law.harvard.edu/publications/2010/Kids\\_Data\\_Internet\\_Safety#cybermyths](http://cyber.law.harvard.edu/publications/2010/Kids_Data_Internet_Safety#cybermyths)>, (Accessed 30 December 2011).

## 7.0 A STEP FORWARD: LEARNING AND DEVELOPMENT INITIATIVES

“On Mxit we can access the programme, which sends us lots of maths problems to solve. And because we can use our cellphones to do maths revision, we really like it,”<sup>211</sup> answers a Cape Town high school student that uses the math application, QuizMax, on Mxit. While the problems of digital risks have been revealed in recent surveys and publications, ICT use for learning and development has provided the public and private South African sectors to become actively involved in creating education programs tailored for adolescents and young people.

### 7.1 Public Sector Development

With support from the Western Cape Department of Education, the Khanya e-schooling initiative was created to address the increasing shortage of educator capacity in schools by delivering education curriculum through technology use in the Western Cape of South Africa in April 2001.<sup>212</sup>

Since 2006, a total of 46,120 computers are used in Khanya schools, and 1,339 of its schools have used technology effectively to deliver digital curriculum to students.<sup>213</sup> One hundred and thirty three schools are in various stages of preparation for the next wave of implementation.<sup>214</sup> Since the launch of the e-schooling initiative, 905,642 reported learners have benefited from the project, and nearly 46,120 computers are used in Khanya schools.<sup>215</sup>

More recently, the Khanya project has incorporated a new method of technology to its initiative by providing smart boards, an interactive whiteboard digital system, to the Tafelberg School in Western Cape.<sup>216</sup> Reportedly, it has donated six smart boards and aims to distribute more to Western Cape education institutions.

<sup>211</sup> Philander, Rusana, ‘New MXit Application Turns Matrics into Mathematics Wizards’, *The New Age*, <<http://www.thenewage.co.za/mobi/Detail.aspx?NewsID=29160&CatID=1021>> (accessed 14 March 2012).

<sup>212</sup> Ibid.

<sup>213</sup> Ibid.

<sup>214</sup> Ibid.

<sup>215</sup> Ibid.

<sup>216</sup> ‘Khanya Project brings Smartboard Technology to Tafelberg School’, via *The Guardian*, August 2011, <<http://www.khanya.co.za/news/media/?pageid=530>> (accessed 14 March 2012).

## 7.2 Private Sector Initiatives

### 7.2.1 Implementing National ICT Education

Since 1996, the ICT in education policy has implemented skill development systems through ICT education platforms.<sup>217</sup> These ICT development strategies in South Africa links to a broader pan-African mandate expressed in the New Partnership for Africa's Development (NEPAD) program's dedication to e-schooling.<sup>218</sup>

### 7.2.2 OVI-tools: The Nokia Education Initiative

Since 2008, Nokia has collaborated with the Department of Education to run a Mobile Learning for Math project in South Africa. The free access mobile education service allows students, aged 14-15 years old, to improve their mathematics skills for grade 10. The program works by using a social networking platform to deliver interactive math lessons on students' mobile phones.<sup>219</sup>

From October 2008 to 2009, Nokia reported 280 participating students in six South African schools using the education project.<sup>220</sup> In the first four months of its launch, more than 180,000 site visits were recorded; nearly half of all students and two-thirds of teachers were considered active participants.<sup>221</sup> In the second phase, a year later, the project expanded its user base to 4,000 students, and 72 teachers in 30 South African schools.<sup>222</sup>

Since its inception in 2008, the Mobile for Learning Maths projects has become a reliable education tool for teachers and young students. Indeed, it offers an alternative mode of learning through digital interface. There has not been recent public evaluation or reporting of results from the initiative.

<sup>217</sup> Farrell, G, Isaacs, S, and Trucano, M, 'Survey of ICT and Education in Africa', South Africa Country Report, *infoDev*, <[www.infodev.org/en/Document.354.pdf](http://www.infodev.org/en/Document.354.pdf)> (accessed 29 December 2011).

<sup>218</sup> Chigona, S, Moore, J, and Van Belle, J.P., *ICT-Based Community Development Initiatives in South Africa*, University of Cape Town, 2005.

<sup>219</sup> Nokia News, 'Nokia Initiative Brings Mobile Learning for Mathematics to South Africa', <<http://nokia-news.com/nokia-initiative-brings-mobile-learning-for-mathematics-to-south-africa/>> (accessed 14 March 2012).

<sup>220</sup> Ibid.

<sup>221</sup> Ibid.

<sup>222</sup> Ibid.

### 7.2.3 Mxit Initiatives

“Let me log into Mxit from the office after school and help you with your homework,” explains a South African mother helping out with her son’s high school math homework.<sup>223</sup>

A Mxit module, Dr Math was started in January 2007 by the Meraka Institute in South Africa. The mobile chat-based tutoring project links local university tutors with math students who ask for math assistance. By logging into their Mxit account, math students can use the chat function and ask math questions to online tutors.

In accordance with its education mandate, the ICT in Education, Young people and Gender Research Group at Meraka Institute agreed to launch Dr Math, in order to encourage “human capital development”<sup>224</sup> in South Africa. The original Dr Math research anticipated no more than twenty to thirty students to participating, however the programme quickly expanded.<sup>225</sup> Since the inception, nearly 30,000 South African students have used Dr Math to assist them with their mathematics homework.<sup>226</sup>

Another initiative, created in 2010, by Mxit and RLabs is the “Angel,” a live drug counselling portal. The “Angel” platform offers live advice and counselling for young people who are “physically or mentally abused, suffer from depression, stress or HIV/Aids, and those who are finding it hard to cope with difficult situations”.<sup>227</sup>

South Africa is among the leading nations progressing in ICT initiatives to combat issues such as, education, health and protection issues.

<sup>223</sup> Butgereit, Laura Lee, ‘C3TO: A Scalable Architecture for Mobile Chat Based Tutoring’ 2010, <<http://www.nmmu.ac.za/documents/theses/Laura%20Lee%20Butgereit.pdf>> (accessed 2 February 2012).

<sup>224</sup> Ibid.

<sup>225</sup> Ibid.

<sup>226</sup> Butgereit, Laura and Reinhardt Botha, *A model to identify mathematics topics in MXit lingo to provide tutors quick access to supporting documentation*. Pythagoras 32(2), 2011, pp.23 – 33.

<sup>227</sup> Ajam, Kashiefa, ‘Mxit launches live drug counseling portal’, *IOL News*, 26 June 2010, <<http://www.iol.co.za/news/south-africa/mxit-launches-live-drug-counselling-portal-1.488103>> (accessed 25 May 2012).

## 8.0 LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

There is limited research that has been done in areas of access, opportunities, and risks. The research that has been conducted has not been updated recently, indicating an urgent need to create and update research in ICT topics. There is a growing interest from the research community to understand the relationship between offline and online behaviours among youths and adolescents, and how young people perceive online risks and negotiate interactions. Literature existed in the areas of public sector initiatives and infrastructure projects, however monitoring and evaluation of these projects has not been provided in evidence-based studies.

## CONCLUSION

Access to mobile technology in South Africa affords a myriad of new opportunities for South African adolescents and young people to enter the digital realm. That said, lower Internet rates, compared to other developing and middle-income countries, and persistent socioeconomic and location-based digital divides means the South African government must continue to pursue and create initiatives to optimize ICT access for all, rural and urban-based dwellers. As recent efforts by the South African government and private sector have drawn great interest and growth in mobile technology, challenges in the coming years will be to encourage a safe expansion of ICT opportunities to all sectors of the population, and to foster the development of a young population fully educated and aware of the opportunities, rights, and risks born of engagement with digital technology.

## Annex I: GLOSSARY

**Access:** The right, opportunity, and/or means of finding, using or retrieving information. (Source: International Standard ISO/TR15489-1, Clause 3.1).

**Adolescent:** Males and females aged 10-19 years. (Source: United Nations Children's Fund (UNICEF), "The State of the World's Children 2011", <[http://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report\\_EN\\_02092011.pdf](http://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report_EN_02092011.pdf)>).

**Apartheid:** A system of institutionalized racial segregation and discrimination for the purpose of establishing and maintaining domination by one racial group over another. In South Africa it was a system of legal racial segregation enforced by the National Party government between 1948 and 1994, during which time the rights of the majority 'non-white' inhabitants of South Africa were curtailed and minority rule by white people was maintained. (Source: United Nations (30 November 2006). "International Convention on the Suppression and Punishment of the Crime of *Apartheid*", <<http://web.archive.org/web/20061001200717/http://www.unhcr.ch/html/menu3/b/11.htm>>).

**Beeping:** Calling someone and hanging up after a ring or two, beeps, also known as missed calls or flashes, are a signal for the recipient to call someone back when the caller is low on airtime. Studies estimate that 20 to 30 per cent of calls made each day in Africa are beeps. (Source: Donner, Jonathan, 'The Rules of Beeping: Exchanging Messages Via Intentional "Missed Calls" on Mobile Phones', *Journal of Computer-Mediated Communication*, 2007, <<http://jcmc.indiana.edu/vol13/issue1/donner.html>>).

**Broadband:** A transmission capacity with sufficient bandwidth to permit combined provision of voice, data and video, with no lower limit. Broadband is implemented mainly through ADSL, cable modem or wireless LAN (WLAN) services. (Source: ITU, <[http://www.itu.int/wsis/tunis/newsroom/stats/The\\_Portable\\_Internet\\_2004.pdf](http://www.itu.int/wsis/tunis/newsroom/stats/The_Portable_Internet_2004.pdf)>).

**Check in:** An online tool available on social networking sites. A user can select past, current and present locations and tag accompanied friends in the check-in feature. (Source: Facebook, <<http://www.facebook.com/about/location>>).

**Coloured:** The term coloured is an apartheid designation to refer to people of mixed race origin, resulting from slavery at the Cape and reflecting the cultural influences of North Africa, indigenous groups, Malay, Italian, British and Dutch. (Source: Erasmus, Zimitri, Re-imagining Coloured identities in post-apartheid South Africa, in *Coloured by history, shaped by place: perspectives on Coloured identities in Cape Town*; edited by Zimitri Erasmus, pg. 13-28. Cape Town: Kwela Books; Maroelana: 2001).

**Connectivity:** The ability to access the Internet and utilize online resources. (Source: Center for International Development at Harvard University, Information Technologies Group, <http://cyber.law.harvard.edu/readinessguide/glossary.html>).

**Cyberbullying:** Willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices (Source: Center for International Development at Harvard University, Information Technologies Group, <[http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/RAB\\_Lit\\_Review\\_121808\\_0.pdf](http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/RAB_Lit_Review_121808_0.pdf)>).

**Developing nations:** According to the World Bank classification, countries with low or middle levels of GNP per capita. Several countries with transition economies are sometimes grouped with developing countries based on their low or middle levels of per capita income, and sometimes with developed countries based on their high industrialization. (Source: "Glossary", The World Bank Group, <<http://www.worldbank.org/depweb/english/beyond/global/glossary.html>>).

**District:** *See Province.*

**Digital behaviour:** The process whereby an individual behaves and interacts with other users online and in groups.

**Digital divide:** The gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to their opportunities to access information and communications technologies (ICTs) as well as to use the Internet. (Source: Patricia, J.P, (2003) 'E-government, E-Asean Task force, UNDP-APDIP', <<http://www.apdip.net/publications/iespprimers/eprimer-egov.pdf>>)

**Digital media:** Digitized content that can be transmitted over the internet or computer networks. This can include text, audio, video, and graphics. News from a TV network, newspaper, magazine, etc. that is presented on a website or blog can fall into this category. (Source: Penn State University, "The Fourth Amendment Relating to Technology", <<https://wikispaces.psu.edu/display/IST432SP11Team14/Definition+of+Digital+Media>>).

**E-mail (electronic mail)** - A computer-based form of sending and receiving messages via the Internet. Users may have their own e-mail account or use a shared account. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

**Ethnicity:** A group of people denoted based on ethnic nationality (i.e., country or area of origin, as distinct from citizenship or country of legal nationality), race, colour, language, religion, customs of dress or eating, tribe or various combinations of these characteristics. (Source: United Nations Statistics Division, <<http://unstats.un.org/unsd/demographic/sconcerns/popchar/popcharmehods.htm>>).

**Fixed broadband Internet subscribers:** The number of broadband Internet subscribers with a digital subscriber line, cable modem, or other high-speed technology. (Source: ITU, <<http://www.itu.int/ITU-D/ict> >).

**Gender:** Classification based on the social attributes and opportunities associated with being male and female, and the relationships between women and men, and girls and boys, (Source: UN Women, <<http://www.un.org/womenwatch/osagi/conceptsanddefinitions.htm>>).

**Gender Equality:** A condition under which women and men have equal opportunities to realize their full human rights and to contribute to, and benefit from, economic, social, cultural and political development. (Source: UN Women, <<http://www.un.org/womenwatch/osagi/conceptsanddefinitions.htm>>).

**Geo-tag:** See *Checking-in*.

**Gross Development:** The value of all final goods and services produced in a country in one year. (Source: World Bank, “Glossary”, <<http://www.worldbank.org/depweb/english/beyond/global/glossary.html#34>>).

**Information and communication technologies (ICTs)** - The building blocks of the Networked World. ICTs include telecommunications technologies, such as telephony, cable, satellite and radio, as well as digital technologies, such as computers, information networks and software. (Source: Center for International Development at Harvard University, Information Technologies Group, <http://cyber.law.harvard.edu/readinessguide/glossary.html>).

**Internet:** A linked global network of computers in which users at one computer can get information from other computers in the network. (Source: ITU <[http://www.itu.int/wsis/tunis/newsroom/stats/The\\_Portable\\_Internet\\_2004.pdf](http://www.itu.int/wsis/tunis/newsroom/stats/The_Portable_Internet_2004.pdf)>).

**Internet subscribers:** People who pay for access to the Internet (dial up, leased line, and fixed broadband). The number of subscribers includes those who pay for Internet use, pay via the cost of their telephone call, pay in advance for a given amount of time (prepaid), and/or pay for a subscription (either flat-rate or volume-per-usage based). (Source: ITU <<http://www.itu.int/ITU-D/ict> >).

**Internet users:** Subscribers who pay for Internet access (dial-up, leased line, and fixed broadband) and people who access to the worldwide computer network without paying directly, either as the member of a household, or from work or school. The number of Internet users will always be much larger than the number of subscribers, typically by a factor of 2–3 in developed countries, and more in developing countries. (Source: ITU <<http://www.itu.int/ITU-D/ict> >).

**ITU:** International Telecommunication Union. The United Nations specialized agency for Telecommunications, <<http://www.itu.int/>>.

**Mobile Phone:** Portable telephone device that does not require the use of landlines. Mobile phones utilize frequencies transmitted by cellular towers to connect the calls between two devices. A mobile telephone service provided by a network of base stations, each of which covers one geographic cell within the total cellular system service area. (Source: ITU, <[http://www.itu.int/wsis/tunis/newsroom/stats/The\\_Portable\\_Internet\\_2004.pdf](http://www.itu.int/wsis/tunis/newsroom/stats/The_Portable_Internet_2004.pdf)>).

**Mobile cellular subscriptions:** The number of subscriptions to a public mobile telephone service using cellular technology, which provides access to the Public Switched Telephone Network. Post-paid and prepaid subscriptions are included. (Source: ITU (2009), <<http://www.itu.int/ITU-D/ict> >).

**Mobile Internet:** Internet accessed via mobile devices such as mobile phones through advanced wireless technologies like Wi-Fi, WiMax, IMT-2000, ultra wideband and radio frequency identification (RFID) tags. These operate at long, medium and short ranges. Handheld devices that are Internet enabled could open up the information gateway in a new and exciting market –one that could help further the goals of universal access while challenging manufacturers and service providers to meet different users’ needs across the globe. (Source: ITU, <<http://www.itu.int/osg/spu/publications/portableinternet/ExecSummFinal2.pdf>>).

**Mxit:** A free instant messaging application developed by Mxit Lifestyle (Pty) Ltd. in South Africa that runs on multiple mobile and computing platforms. Along with its own standard protocol, it can connect to Yahoo, ICQ, Google Talk, Facebook, AIM, or Windows Live Messenger contacts as well. (Source: Mxit, <<http://www.Mxitleifestyle.com/getting-started>>).

**Online** – A resource that is available over the Internet or a network. (Source: Center for International Development at Harvard University, Information Technologies Group, <<http://cyber.law.harvard.edu/readinessguide/glossary.html>>).

**Participation Gap:** Unequal access to the opportunities, experiences, skills, and knowledge that will prepare young people for full participation in the world of tomorrow. (Source: Henry Jenkins, “Building the Field of Digital Media and Learning”, Massachusetts Institute of Technology, <[http://digitalllearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS\\_WHITE\\_PAPER.PDF](http://digitalllearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF)>).

**Penetration:** A measurement of access to telecommunications, normally calculated by dividing the number of subscribers to a particular service by the population and multiplying by 100. (Source: ITU (2009), “Glossary, Acronyms and Abbreviations”, <[http://www.itu.int/ITU-D/ict/publications/wtdr\\_99/material/glossary.html](http://www.itu.int/ITU-D/ict/publications/wtdr_99/material/glossary.html)>).

**Personal computers:** Self-contained computers designed to be used by a single individual. (Source: ITU (2009), <<http://www.itu.int/ITU-D/ict> >).

**“Please Call Me”** - Free service of calling someone. Studies estimate that 20 to 30 per cent of calls made each day in Africa are beeps. (Source: MobileActive.org, <<http://mobileactive.org/please-call-me-messages-hiv-info-mobile-social-marketing-south-africa>>).

**Population:** The number of all residents in a country, regardless of legal status or citizenship, excluding refugees not permanently settled in the country of asylum. Data are midyear estimates. (World Bank, “Country at a Glance technical notes”, <<http://go.worldbank.org/WG51XXDWB0>>).

**Province:** South Africa has nine provinces: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo Province, Mpumalanga, Northern Cape, North West and Western Cape. Each province has its own provincial government, with legislative power vested in a provincial legislature and executive power vested in a provincial premier and exercised together with other members of a provincial executive council. (Source: SouthAfrica.info, <<http://www.southafrica.info/about/government/govprov.htm>>).

**Race:** See *Ethnicity*

**Rural:** Any area that cannot be classified as urban. Rural areas are less dense and are usually farming or mining areas. Examples of rural areas from responses include Tzaneen, a small agricultural village with a population of 30,000 in the Mopani district of Limpopo, and Balfour, a coal mining and maize farming town in Mpumalanga, with a population of 21,000. (Source: Statistics South Africa. 2001. Census 2001: Concepts and definitions / Statistics South Africa. [www.statssa.gov.za/census01/html/concepts%20&%20definitions.pdf](http://www.statssa.gov.za/census01/html/concepts%20&%20definitions.pdf)).

**SIM:** Subscriber identity module (card). A small printed circuit board inserted into a GSM-based mobile phone. It includes subscriber details, security information and a memory for a personal directory of numbers. This information can be retained by subscribers when changing handsets. (Source: ITU, <<http://www.itu.int/osg/spu/publications/portableinternet/ExecSummFinal2.pdf>>).

**SMS:** Short Message Service. A service available on digital networks, typically enabling messages with up to 160 characters to be sent or received via the message centre of a network operator to a subscriber’s mobile phone. (Source: ITU, <<http://www.itu.int/osg/spu/publications/portableinternet/ExecSummFinal2.pdf>>).

**Social Network Site:** A web-based service that allows individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. (Source: Boyd, d. m., & Ellison, N. B. (2007), “Social network sites: Definition, history, and scholarship”, <<http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>>).

**Software** - The programs or other "instructions" that a computer needs to perform specific tasks. Examples of software include word processors, e-mail clients, web browsers, video games, spreadsheets, accounting tools and operating systems.

(Source: Center for International Development at Harvard University, Information Technologies Group,

<http://cyber.law.harvard.edu/readinessguide/glossary.html>).

**Urban:** Areas classified based on dominant settlement type and land use. Cities, towns, townships and suburbs are typical urban settlements. They must be high-density populated areas, with a population of 20,000 or more. (This number has been adjusted to account for a 4.8% increase in population per annum, since 2001 when the original figure was termed.) Urban areas include Cape Town, the second-most populous city in South Africa, as well as Rustenburg, the fastest growing city in South Africa which boasts one of the highest GDPs per capita in the nation. (Source: Statistics South Africa. 2001. Census 2001: Concepts and definitions / Statistics South Africa, <[www.statssa.gov.za/census01/html/concepts%20&%20definitions.pdf](http://www.statssa.gov.za/census01/html/concepts%20&%20definitions.pdf)>).

**Wireless:** Generic term for mobile communication services which do not use fixed line networks for direct access to the subscriber. (Source: ITU, <<http://www.itu.int/osg/spu/publications/portableinternet/ExecSummFinal2.pdf>>).

**Young people/Young People:** Males and females of ages 14-24 years. (Source: United Nations Children's Fund (UNICEF), "The State of the World's Children 2011", <[http://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report\\_EN\\_02092011.pdf](http://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report_EN_02092011.pdf)>).

## Annex II: Working Group Biographies

### **Gerrit Beger** ([gbeger@unicef.org](mailto:gbeger@unicef.org))

Gerrit Beger is the Chief of the Youth Section of the Division of Communication in UNICEF New York Headquarters.

He has been working with UNICEF for the last eight years with postings in Nigeria and India. Gerrit leads the innovative Youth Section, which uses new technologies and media to engage young people in social change through youth media and educational initiatives. He has over 12 years of experience working as a communication and advocacy professional in different environments, including the NGO/IGO sector, as well as corporate firms. Gerrit is a German national holding a MA in Communication Science and Political Studies from the University of Leipzig.

### **Charmain Badenhorst** ([cbadenhorst@mtnloaded.co.za](mailto:cbadenhorst@mtnloaded.co.za))

Dr Charmain Badenhorst is a senior researcher at the Council for Scientific and Industrial Research (CSIR), Meraka Institute. She holds B.luris, LLB, BA (Hons) (Criminology), Master of Arts (Criminology) and D.Litt et Phil (Criminology) degrees from the University of South Africa. Badenhorst is an admitted advocate of the High Court of South Africa and started her career as a prosecutor in the Department of Justice and Constitutional Development. Her research interests focus mainly on the rights of children in general, children in conflict with the law, Child Justice, Criminal Justice and related issues. She has authored various articles and papers on the implementation of the Child Justice Act, the criminal capacity of children and diversion.

### **Tanja Bosch** ([tanja.bosch@uct.ac.za](mailto:tanja.bosch@uct.ac.za))

Tanja Bosch is a senior lecturer in the Centre for Film and Media Studies at the University of Cape Town, South Africa.

Tanja teaches radio journalism, new media, health communication and media theory and research. Her areas of research and publication include talk radio and democracy, community radio, and youth use of mobile media, particularly cellphones and Facebook.

She completed her MA in International Affairs while a Fulbright Scholar at Ohio University, where she also graduated with a PhD in Mass Communication. Her dissertation, which was awarded the Broadcast Educational Association (BEA) Outstanding Dissertation Award 2003, was an ethnographic study of community radio and identity in South Africa.

### **Cheryl Brown** ([Cheryl.Brown@uct.ac.za](mailto:Cheryl.Brown@uct.ac.za))

Cheryl Brown works in the Centre for Educational Technology at the University of Cape Town, South Africa. Over the past 7 years she has been researching issues of access to and use of ICTs for learning within higher education. Previously she worked in the e-learning field in Australia where she managed the Multimedia Unit within Flexible Learning and Access Services at Griffith University. Her PhD in Information Systems focused on students' perspectives about

what technology really meant to them as individuals and looked at how these meanings form the basis of different technological identities. She is interested in first year students experiences of ICT and issues around digital literacy.

**Patrick Burton ([patrick@cjcp.org.za](mailto:patrick@cjcp.org.za))**

Patrick Burton is the Executive Director of the Centre for Justice and Crime Prevention (CJCP), a Cape Town-based NGO engaged in the field of social justice and crime prevention, with a particular focus on children and youth. Patrick holds a Higher Diploma in Development Planning from the University of the Witwatersrand, and a Master of Science degree in Development Studies from the University of KwaZulu-Natal (Durban). As a partner and director of Development Research Africa in Johannesburg, Patrick undertook extensive work in the security; HIV/AIDS and health; ICT and small business sectors. He spent time seconded to the National Department of Provincial and Local Government, as well as to the National Department of Communications. He co-designed, project-managed, and was the lead researcher for the second South African Crime Victimization study undertaken by the Institute for Security Studies, as well as several smaller, site-based victimization surveys. While at CJCP, Patrick has worked on, amongst other projects, the first and subsequent national youth victimisation studies (the first to be conducted in South Africa), a youth resilience to violence study, a national school violence baseline study and studies into the experience of online aggression and bullying amongst young people in South Africa.

He has been involved in the development of the Hlayiseka School Safety Toolkit, a whole school approach to school safety developed by the CJCP with the National Department of Basic Education, and rolled out at the Ministerial Priority schools, as well as at over 1,500 schools nationally. Patrick was the principal investigator on the first school violence study undertaken in the country, which entailed collecting data from over 13,000 learners and educators. He is leading the team reviewing the Toolkit, and responsible for the development of additional modules on bullying (including cyber bullying), classroom management and positive discipline, for the DoBE. He has spoken at both national and international fora on the issue of school violence, bullying and cyber bullying. He has worked with a range of international partners including UNICEF, UNODC, the World Bank, DFID, GiZ, and the Open Society Initiative. Country experience includes South Africa, South Sudan, Ethiopia, Malawi, Tanzania, Mozambique, Namibia, and the Democratic Republic of Congo.

**Jasmina Byrne ([jbyrne@unicef.org](mailto:jbyrne@unicef.org))**

Jasmina Byrne is the Child Protection Specialist working in UNICEF Innocenti Research Centre responsible for research related to violence, abuse and exploitation of children. Her current portfolio includes management of research on effective programme strategies and interventions to address violence against children and child safety on the internet. Prior to joining UNICEF Innocenti Ms Byrne was a head of Child Protection Programme in UNICEF Indonesia and had previously worked with UNICEF in Lesotho. In addition to the UN, she has extensive experience in working with the civil society organisations most notably with Save the Children in Southern Africa and the International Committee of the Red Cross in former Yugoslavia. She has carried out research, policy analysis and supported programme design and interventions related

to child protection in Europe, South East Asia and Southern Africa. Ms. Byrne holds MA in International Relations and European Studies from Central European University, Budapest. (CEU)

**Wallace Chigona** ([Wallace.Chigona@uct.ac.za](mailto:Wallace.Chigona@uct.ac.za))

Wallace Chigona is an Associate Professor in Information Systems at the University of Cape Town in South Africa. Wallace's research interest is the use of information technology for human development. Wallace has research on the use of mobile technology by the disadvantaged population in South Africa. Wallace is currently an Associate Editor for the Electronic Journal of Information Systems in Developing Countries and The African Journal of Information Systems.

**Sandra Cortesi** ([scortesi@cyber.law.harvard.edu](mailto:scortesi@cyber.law.harvard.edu))

Sandra Cortesi is a Youth and Media Policy Working Group and the Youth and Media Lab Project fellow at the Berkman Center, coordinating research and education initiatives. Both in Digital Natives Project and in her current work, Sandra has been working in conducting various surveys and interviews and has enjoyed dealing with topics such as identity and creativity. Within the Digital Natives Project she relishes the contact with young people and their innovative ways of thinking and also the vast communication and collaboration possibilities the internet has to offer. She has also been working for the Research Center for Information Law at the University of St. Gallen, Switzerland. In June 2009, Sandra finalized her Master's in Human Computer Interaction at the University of Basel.

**Laura Czerniewicz** ([Laura.Czerniewicz@uct.ac.za](mailto:Laura.Czerniewicz@uct.ac.za))

An educator, researcher and strategist, Associate Professor Laura Czerniewicz has worked in the field of educational technology at the University of Cape Town for over a decade. The founding Director of the Centre for Educational Technology, she is currently the Director of the OpenUCT Initiative leading the university to open up its knowledge resources to all with internet connectivity and engage globally with the open education agenda and scholarly communication issues from a Southern perspective. Her research interests include students' digitally-mediated practices, mobile education, open education, scholarly communication, digital identities and the field of learning technology as a scholarly domain. She blogs at [lauraczerniewicz.uct.ac.za](http://lauraczerniewicz.uct.ac.za) and tweets as @czernie

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Urs Gasser is the Executive Director of the Berkman Center for Internet & Society at Harvard University. He teaches at Harvard Law School, at the University of St. Gallen (Switzerland) and Fudan University School of Management (China). He is a visiting professor at KEIO University (Japan) and a Fellow at the Gruter Institute for Law and Behavioral Research. Urs Gasser has written several books, is the co-author of “Born Digital: Understanding the First Generation of Digital Natives” (Basic Books, 2008, with John Palfrey) that has been translated into ten languages (including Chinese), and has published over 70 articles in professional journals. His research and teaching activities focus on information law and policy issues. Current projects, several of them in collaboration with leading research institutions in the U.S., Europe, and Asia, explore policy and educational challenges for young Internet users, the regulation of digital technology (currently with focus on cloud computing), ICT interoperability, information quality, the law’s impact on innovation and risk in the ICT space, and alternative governance systems. He graduated from the University of St. Gallen (J.D., S.J.D.) as well as Harvard Law School (LL.M.) and received several academic awards and prizes for his research.

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Shafika Isaacs is an International ICT for Development Consultant, specializing in the education sector. She is currently Program Director of eLearning Africa and Fellow at Education Impact, a network of international consultants specializing in educational technologies.

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Shafika serves on a number of boards and committees including the Advisory Board of the Horizon Report K-12, the Organizing Committee of eLearning Africa, the Steering Committee of Online Educa Berlin, the Board of Directors for SchoolNet South Africa and SchoolNet Africa and was founding Steering Committee member of the UN ICT Task Force’s Global eSchools and Communities Initiative (GeSCI). She served as Chairperson for the United Nations Division for the Advancement of Women’s Expert Group Meeting on the role of technologies in the advancement of women and girls.

She has published a number of papers related to technologies for development, education and women’s empowerment and is the author of a book on globalization and its effects on workers in South Africa.

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Priscillia Kounkou Hoveyda is currently Child Protection Specialist in emergencies at UNICEF Central African Republic (CAR).

Prior to UNICEF CAR, she worked as the Project Manager of the Digital Citizenship and Safety project, and the current paper was launched under her vision and strategy. She has also worked in the Eastern region of the Democratic Republic of Congo with the International Rescue Committee and in Iran focusing on the protection of human rights as well as in Paris and New York as an in-house lawyer with different law firms and companies.

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Tino Kreutzer is a Specialist in Digital Media and Sociology. He is currently working at UNDP as Information Management Specialist in Central African Republic. Tino's research on use of Mobile Phones in Urban Youths of South Africa has proven to be unique and extremely important within context of digital media in South Africa.

Tino, who is based in Afghanistan now, was a strong faculty member at Centre for Film and Media Studies at University of Cape Town for several years, and graduated from very same institution with Masters in Media Development.

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Christopher Napolitano is currently a Doctoral Research Assistant at the Institute for Applied Research in Youth Development at Tufts University. Working with Richard M. Lerner, Marina Bers, and Jon Zaff, he currently researches the role of serendipity and intentional self-regulation on developmental outcomes during late adolescence. He is also interested in mobile phones as conduits for self-development and youth-driven social change in "developing" contexts. Prior to Tufts University, he received degrees in History and Human Development from Boston College.

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Kate Pawelczyk is working as the Communication Officer at UNICEF South Africa Country Office since October 2009. Prior to that, Kate was working within the Communication's team as both Intern and Programme Assistant.

Kate is an expert in Communication and Development. Kate has completed her Bachelor of Arts, majoring in Journalism & Media and History, and her Honors degree in Development Studies.

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Andrew Schrock is a Ph.D student at the Annenberg School for Communication and Journalism at the University of Southern California (USC). In the past he has been a research assistant to danah boyd at the Harvard Berkman Center for Internet & Society, adjunct professor (at California State University Long Beach, USC, and University of Central Florida), and assistant director of the Annenberg program on online communities. He is currently a fellow at the Innovation lab, and a member of Henry Jenkins' Civic Paths and Anne Balsamo's Public Interactives Research Team (PIRT). Specific foci of his work include how mobile technologies impacts media usage and social relationships in urban space, online and blended online/offline communities and collectives, and histories of the Internet.

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Akshay Sinha is currently the Project Manager of Digital Citizenship and Safety project at UNICEF.

Prior to UNICEF, he was working at UN FAO for Iraq mission in conflict/post-conflict rural development, heading the agriculture survey and economic development projects. He has also worked in data analytics and strategy consulting role at McKinsey & Company and as a finance/business analyst at Morgan Stanley's Investment Management division.

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Rossouw holds a PhD-degree from the ex-Rand Afrikaans University. He has been the Head of Department of the Information Technology at the ex-PE Technikon and the Nelson Mandela Metropolitan University for more than fifteen years. Currently Rossouw is the Director of the Institute for ICT Advancement at the NMMU. Rossouw has published and presented close on one hundred and fifty academic papers in journals and conferences, both internationally and nationally. Most of these papers were published and presented in the field of Information Security. He has supervised fifty odd M & D students successfully. Rossouw is an executive member of Technical Committee 11 (responsible for information protection) of the International Federation for Information Processing (IFIP). He is also a member of the South African Computer Society. Rossouw is also currently the immediate past-President of the South African Institute for Computer Scientists and Information Technologists (SAICSIT). He is also a Certified Information Security Manager (CISM).

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Melanie worked as Intern to the Digital Safety and Citizen Project at UNICEF New York Headquarters. She holds a BA in Development Studies from Brown University, and she is currently attending Harvard Law School.

Prior to her internship at UNICEF, Melanie spent a year in Cape Town, South Africa, working as a researcher on the PREPARE: “Promoting sexual and reproductive health among adolescents in Southern and Eastern Africa – mobilizing schools, parents and communities” project. She has also worked with the Youth Program at the International Rescue Committee New York Resettlement Office, and in HIV clinics in Odumase Krobo, Ghana and Durban, South Africa.